

INTERNATIONAL UNION OF GEOLOGICAL SCIENCES

62nd EXECUTIVE COMMITTEE MEETING

FEBRUARY 22-25, 2011

PARIS, FRANCE

UNESCO HEADQUARTERS

(Fontenoy building, 7 Place de Fontenoy, Room XIII)

OFFICIAL MINUTES



Hosted by UNESCO

Meeting Participants

Executive Committee Members

Alberto Riccardi (IUGS President), Peter Bobrowsky (IUGS Secretary General), William Cavazza (IUGS Treasurer), Ochir Gerel (IUGS Vice President), Jacques Charvet (IUGS Vice President), Zhang Hongren (IUGS Past President), Colin Simpson (IUGS Councillor) Ezzoura Errami (IUGS Councillor), Wesley Hill (IUGS Councillor), and Sampat Kumar Tandon (IUGS Councillor)

Observers

Umberto Cordani and Eldridge Moores (Past IUGS President and Vice-President), Edmund Nickless, Edward Derbyshire and Alan Lord (Geological Society of London), Patrick Leahy, (AGI, IUGS FC), Antonio Brambatti and Johan Zdenek (IUGS FC), Attilio Boriani (SPC), Fred Spilhaus (IUGS PC), Mudlappa Jayananda (Episodes Editor, IUGS PC), Jesus Martinez-Frias (COGE), Christine Asch (CGI).Stan Finney (ICS), Lawrence Donnelly and Brian Marker (GEM), Cess Passchier (TecTask), Patrick De Weber (Geoheritage TG), Arne Bjorlykke and Ernesto Abbate (IGCC), Ian Lambert (34th IGC), Azim Ibrohim (Tajikistan NC), Cecilio Quesada Ochoa (Spain NC), Mirka Trajanova (Slovenia NC), Ivan Zargochev (Bulgaria NC), Michel Hermelin (Colombia NC), Elizabeth Koster (Canada NC), Patrick O' Connor (Geol. Soc. Ireland), Sierd Cloetingh (ILP), Aberra Mogessie (GSAf), Luca Demicheli (EuroGeoSurveys), J.-P. Cadet (CGMW), Sarmad Shakir Mahomoud (AGA), Jack Hess (GSA), Johan Venice (YES), Eduardo de Mulder and Wolfgang Eder (PEI), Robert Missotten, Margarete Patzak and Sarah Gaines (UNESCO), E. Madela-Mutla (ICSU ROA), Alik Ismail-Zadeh (IUGG).

Secretariat

Richard Calnan, (IUGS Secretariat, U.S. Geological Survey), Nancy Zeigler (Recording, U.S. Geological Survey)

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1. WELCOMING ADDRESS

The IUGS President, Alberto Riccardi opened the 62nd IUGS EC Meeting acknowledging, several people for the excellent work on their part in making the 50th Anniversary Celebration of the IUGS a commemorative event. He spoke of several accomplishments during the past year and commended Wesley Hill for her work on the IUGS video.

Note: On behalf of the Euro GeoSurveys, Luca Demicheli presented a gift to the IUGS to Alberto Riccardi.

2. APPROVAL OF AGENDA

Alberto Riccardi moved that the Agenda be approved:

The Committee APPROVED and ADOPTED the Agenda

3. MINUTES OF THE 61st EXECUTIVE COMMITTEE MEETING, 22-25 FEBRUARY 2010

3.a. Approval of the Paris Minutes for the 61st Executive Committee Meeting

Alberto Riccardi called for a vote to approve the Minutes for the 61st Executive Committee Meeting:

The Committee APPROVED the minutes of the 61st EC Meeting

3.b. Status Actions arising from 61st EC Meeting -- Peter Bobrowsky

ACTION ITEMS FOR 61st EXECUTIVE COMMITTEE MEETING

ACTION ITEM #1

Secretary General Peter BOBROWSKY will request David HUNTLEY to submit a formal letter of resignation to the full EC with respect to his past role as Assistant to the Secretary General. President Alberto RICCARDI will then send a note of thanks. **Completed**

ACTION ITEM #2

IUGS Publication Committee will redefine their mandate and Terms of Reference and should look into the renewal of the Episodes Editorial Board, repair the Episodes website to ensure access to past issues and improve the management of online paper submission. **Completed (a proposal was submitted on 14 February 2011, available under 5.a.2.-)**

ACTION ITEM #3

The new Strategic Planning Committee, Chaired by Attilio BORIANI, is to proceed with the already approved Terms of Reference and to decide its own strategy. Where possible it should also look for the input of young people. **Completed**

ACTION ITEM #4

Secretary General Peter BOBROWSKY will send the ICSU grant application procedures and template to CGI so they can begin efforts for their proposal submission in 2010 **Completed**

ACTION ITEM #5

CGI Chair Kristine ASCH and colleagues are expected to complete an integrated ICSU grant proposal by late September 2010 in cooperation with IUGG (and if possible other GeoUnions) for submission in response to the ICSU grant proposal deadline later this year. **Completed**

ACTION ITEM #6

IUGS ARC to be completed this year with the following Chairs and Secretaries for two commissions and one program: ILP (Vice President Jacques CHARVET as Chair and Treasurer William CAVAZZA as Secretary),

COGE (President Alberto RICCARDI as Chair and Secretary General Peter BOBROWSKY as Secretary) and GEM (Councillor Colin SIMPSON as Chair and Secretary General Peter BOBROWSKY as Secretary). **Completed.**

ACTION ITEM #7

President Alberto RICCARDI will contact COGE requesting that they examine their own interests and redefine the goals of the Commission well in advance of the pending ARC of COGE planned for later this year. **Completed**

ACTION ITEM #8

President Alberto RICCARDI will contact GEM to find out how the present and future plans and activities are a follow up of previous activities. **Completed**

ACTION ITEM #9

Strategic Planning Committee will provide a report on new potential Commissions using the list of topics considered at the Oslo Council meeting which included climate change, hazards, energy and sustainability, to which marine geology should be added. **Pending**

ACTION ITEM #10

Councilor Marta MANTOVANI to check the 2009 TGGGB annual report to IUGS and confirm the nature of the Task Group support for the new Chinese geochemical mapping institute initiative, then to contact the Commission to clarify the role of the Task Group in the new Category 2 UNESCO institute, and finally inform the EC of the results. **Completed???? Pending**

ACTION ITEM #11

Secretary General Peter BOBROWSKY to write to all Commissions, IGCP projects, Task Groups and other associated bodies within the IUGS reminding them for the need to participate in the next IGC in Brisbane. **Completed**

ACTION ITEM #12

President Alberto RICCARDI to send a letter to each of the IUGS National Committees requesting that they begin to work on behalf of and support the concept of Geoparks. **Completed**

ACTION ITEM #13

Councilor Colin SIMPSON and Vice President Jacques CHARVET to table within the next two months a TOR on Geoparks. **Completed.**

ACTION ITEM #14

President Alberto RICCARDI to explore possible interaction of OneGeology with the Geoparks initiative. **Completed**

ACTION ITEM #15

The IUGS PC is requested to clarify the rules and procedures regarding the endorsement of the Union and the use of the IUGS logo for various publications by outside publishing houses while ensuring our publication agreement with GSL is not undermined. **Pending.**

ACTION ITEM #16

The IUGS PC to advise the EC regarding our endorsement of the Springer Book Series on Geoparks, and on the conditions for use of IUGS logo by the Geoheritage Journal. **Pending**

ACTION ITEM #17

Secretary General Peter BOBROWSKY will contact Prof. ZHAO Xun and request a report regarding the status and plans for the IUGS Beijing Office for GeoHeritage. **Completed.**

ACTION ITEM #18

Executive Director of AGI, Pat LEAHY, to provide the IUGS EC with a copy of the official dissolution of partnership agreement which now exists between the IUGS and UNESCO on the Global Workforce Task

Group. **Completed.**

ACTION ITEM #19

Secretary General Peter BOBROWSKY to send letters to the IUGS NC asking them to propose individuals that could participate in the activities of the Global Workforce Task Group. **Completed.**

ACTION ITEM #20

President Alberto RICCARDI to request to the GeoUnions the addition of the topic of a GeoUnion meeting in Turin (to be coordinated by Lio BORIANI) before the 2011 ICSU meeting. **Completed**

ACTION ITEM #21

President Alberto RICCARDI to explore the possibility to have a common strategic plan for ICSU's GeoUnions. **Completed**

ACTION ITEM #22

President Alberto RICCARDI and Vice President Jacques CHARVET will circulate to the EC a revised draft of the IUGS Statutes, based on the (separate) version prepared in 2007. **Completed.**

ACTION ITEM #23

President Alberto RICCARDI will send a letter of acknowledgment, thanks and gratitude to Sospeter MUHONGO who is outgoing Director of the ICSU Africa office for his many years of support and collaboration with IUGS. **Completed**

ACTION ITEM #24

President Alberto RICCARDI will send a letter to the ICSU regional office for Asia and Pacific asking for a more effective communication between ICSU and IUGS. **Completed.**

ACTION ITEM #25

Vice Presidents Jacques CHARVET and Councillor OCHIR Gerel to report to the EC on answers to questionnaires received from NC and Affiliate Members. **Pending.**

ACTION ITEM #26

Secretary General Peter BOBROWSKY to write a letter to each Affiliated Body requesting that they provide a direct hyper link to the IUGS website on their own websites. **Completed.**

ACTION ITEM #27

Secretary General Peter BOBROWSKY to write a letter to YES requesting if they could provide a direct hyper link to the IUGS website on their own website. **Completed.**

ACTION ITEM #28

Councillor Colin SIMPSON and the Secretariat to distribute the annual call for proposals for IGCP projects as a separate notice and in the E-Bulletin to our full Union list. **Completed.**

ACTION ITEM #29

Secretary General Peter BOBROWSKY to send letters to IGCP Project Leaders congratulating those with high score and calling the attention of concern to those with low scores. **Obsolete.**

ACTION ITEM #30

Councillor Ezzoura ERRAMI, will produce a report with the assistance of IYPE Executive Director Ed de MULDER that will examine the methodologies used by the various IYPE national committees to see how these can be adapted to the IUGS national committees. **Completed.**

ACTION ITEM #31

Secretary General Peter BOBROWSKY will send a letter to all National Committees requesting that each Committee support YES candidates to participate in various regional and international meetings (e.g. IGC). **Completed.**

ACTION ITEM #32

President Alberto RICCARDI will send a second letter to UNESCO IGCP Secretariat noting that Estonia is still not mentioned in their website list of IGCP participants. **Completed.**

ACTION ITEM #33

President Alberto RICCARDI to send an official letter to UNESCO informing them of the EC decision to support UNESCO's initiative on Education in Africa. **Completed.**

ACTION ITEM #34

President Alberto RICCARDI to send an official letter to UNESCO proposing to form a group on UNESCO's Initiative on Education in Africa to coordinate activities, including representatives of the different participating organizations (UNESCO, IUGS, CIFEG, GSAf, GSAW and the Museum of Central Africa). **Completed.**

ACTION ITEM #35

President Alberto RICCARDI to request all NC of developed countries and specific Affiliate members to support exchange of scientists and specific research projects in relation to UNESCO's Initiative on Education in Africa. **Completed.**

ACTION ITEM #36

Secretary General Peter BOBROWSKY to contact the Finnish National Committee requesting that their web portal include a link to the IUGS website. **Completed.**

ACTION ITEM #37

President Alberto RICCARDI will send a letter to the UK IUGS National Committee addressing the National Committee's concerns regarding a supposed lack of progress in the statutes and bylaws and IUGS-IUGG relations. **Completed.**

ACTION ITEM #38

President Alberto RICCARDI will send a letter to the Italian IUGS National Committee addressing the National Committee's concerns regarding interaction with National Committees and informing them of the activities of the Task Group on Adhering Members. **Completed.**

ACTION ITEM #39

Secretariat to resend the application for Affiliate Membership status in IUGS to the Indian Earthquake Society. **Completed.**

ACTION ITEM #40

Secretary General Peter BOBROWSKY to request the use of IUGS logos by affiliated organizations. **Completed.**

ACTION ITEM #41

President Alberto RICCARDI to inform CGMW that the IUGS agrees with the use of the Union logo in their publications if these are produced in compliance with ICS standards. **Completed.**

ACTION ITEM #42

President Alberto RICCARDI will send a letter to the American Association of Petroleum Geology (AAPG) and request an annual report from them. **Completed.**

ACTION ITEM #43

President Alberto RICCARDI will send all information regarding the Arab Geologists Association to Councillor Ezzoura ERRAMI who will then sort out the current confusion regarding geological membership in that region. **Completed.**

ACTION ITEM #44

President Alberto Riccardi will contact Francis ALBAREDE (Ecole Normale Supérieure) to determine in which way the IUGS can contribute to the future global geoscience activities of the AGU. **Completed.**

ACTION ITEM #45

Treasurer William CAVAZZA will approach the International Mineralogical Association to determine how they can be better involved in the geo-standards initiative within the IUGS. **Completed.**

ACTION ITEM #46

Secretariat will check again to confirm if there are any financial requests for support this year from the International Medical Geology Association. **Obsolete.**

ACTION ITEM #47

Secretariat to complete a draft version Annual Report for 2009 for EC review by July 2010. **Pending.**

ACTION ITEM #48

Secretariat to complete the draft Minutes of the 61st Executive Committee Meeting for EC review by July 2010. **Completed.**

ACTION ITEM #49

Each EC member to inform the Secretariat regarding the number of brochures they have in their possession so that the Secretariat may respond appropriately with the correct number of new stickers to send to each EC member. **Completed.**

ACTION ITEM #50

Secretariat to obtain the existing IUGS posters (panel and wall) from Norway and forward to the Publication Committee for their attention to edit and revise the text. **Completed.**

ACTION ITEM #51

President Alberto RICCARDI to request INHIGEO and Sue TURNER to provide a concrete schedule for the production of the book History of the IUGS (1961-2011). **Completed.**

ACTION ITEM #52

Secretary General Peter BOBROWSKY to contact Sue TURNER and INHIGEO requesting that they submit an IUGS history text directly to the IUGS PC so that it may be used for a traveling exhibition and as a supplement to the new IUGS poster. **Completed.**

ACTION ITEM #53

President Alberto RICCARDI to send a letter to all National Committees to request input on the items that could be included in the History of IUGS. **Completed.**

ACTION ITEM #54

Secretary General Peter BOBROWSKY will ask INHIGEO to use their website and the IUGS website as a point of collaboration. **Completed.**

ACTION ITEM #55

President Alberto RICCARDI to send a letter to IUGS Commissions (COGE, CGI, GEM) and Affiliated members asking them to identify and nominate candidates to various GEO committees, and to inform them in which way they could contribute to the tasks of the 2009-2011 GEO Work Plan. **Completed.**

ACTION ITEM #56

Secretariat to download all 2010 meetings from the IUGS website and distribute the full list to the EC so they can decide at which meetings the IUGS will be represented at this year. **Completed.**

ACTION ITEM #57

The Executive Committee should review the list of standards compiled by Treasurer William CAVAZZA and send their suggestions to him by 31 March. **Completed.**

ACTION ITEM #58

The Executive Committee members should send to President Alberto RICCARDI their comments regarding the proposal he circulated on a new type of IUGS awards on Scientific Achievement to be given during the IGC in Brisbane before 31 March. **Completed.**

ACTION ITEM #59

Ian LAMBERT and the IUGS EC should address the issue of awards to be presented including their scheduling at the next IGC congress. **Pending.**

ACTION ITEM #60

Secretariat to produce a 50th IUGS Anniversary sticker for broad distribution. **Completed.**

ACTION ITEM #61

Secretariat will arrange for a traveling exhibit, based upon the poster updated by the PC, to be displayed at different meetings, starting with the ICSU assembly in Rome. **Completed.**

ACTION ITEM #62

Councillor Ezzoura ERRAMI will investigate the possibility and cost of producing IUGS world puzzles. **Completed.**

ACTION ITEM #63

Past President ZHANG Hongren will investigate the possibility and cost to produce new ties and scarves. **Completed.**

ACTION ITEM #64

Vice President Jacques CHARVET will investigate with CGMW the possibility and cost to produce new mouse pads. **Completed.**

ACTION ITEM #65

Treasurer William CAVAZZA will request detailed and verified budget expenditure for IGCP in 2010 from the IGCP Secretariat. **Completed.**

ACTION ITEM #66

Secretariat will request a detailed budget income-expense accounting from all bodies that receive financial support from IUGS. **Incomplete.**

ACTION ITEM #67

President Alberto RICCARDI to send a letter to the ICS which must require clarification as to how the IUGS funds are being used. **Completed.**

ACTION ITEM #68

President Alberto RICCARDI will contact YES executive explaining that IUGS needs to formalize a relationship with them before any form of support can be discussed. **Completed.**

ACTION ITEM #69

Secretary General Peter BOBROWSKY to distribute the draft ACTION ITEMS to the Executive Committee for their comments. **Completed.**

ACTION ITEM #70

All future reference by the IUGS EC and Secretariat to “surnames” should be shown in UPPER CASE. **Completed.**

ACTION ITEM #71

Secretariat to send out the Questionnaire produced by Vice President Jacques CHARVET with a cover letter to all National Committees. **Completed.**

ACTION ITEM #72

Vice President Jacques CHARVET to forward to the EC for comments the new template for the new Annual Report. **Completed.**

ACTION ITEM #73

Ben MAPANI will provide the Secretariat with suggested contacts in various African nations that still lack an IUGS National Committee. **Completed.**

4. ANNUAL ADMINISTRATIVE AFFAIRS

4.a. President's Report - Alberto Riccardi

As was the case in 2009 one of the main concerns of the IUGS President during 2010 was to improve interaction with IUGS National Committees, as well as with other bodies and organizations working inside and outside IUGS to address as efficiently as possible all earth science issues of relevance to society. Thus, personal letters were sent to all IUGS bodies, including Commissions, Task Groups, National Committees, Affiliate Organizations and joint programs, with regard to specific issues of the 2009 reports and stressing the need to develop multilateral cooperation among all these groups. In the specific case of COGE - President Alberto Riccardi interacted with COGE requesting that they examine their own interests and redefine the goals of the Commission well in advance of the pending ARC of COGE planned for 2010. With regard to GEM, President Alberto Riccardi asked for the present and future plans and activities. The President dealt with the Task Group on Isotopic Geology in relation to a proposal submitted to the IUGS EC. He also sent letters to CGMW, AAPG and AGU on specific items of mutual interest.

With regard to ICSU the IUGS President participated in: a) a foresight analysis ICSU conducted on key drivers that may influence international science over the next 20 years; b) ICSU's survey on activities and experiences in science education; c) a review of the ICSU Regional Office for Asia and the Pacific, to whose Director he sent a letter asking for a more effective communication between ICSU and IUGS; d) a review of the ICSU Regional Office for Latin America and the Caribbean; e) the Fifth Electronic General Assembly on ICSU's accounts; f) supporting the Report by the Ad Hoc Group on Weighted Voting; g) answering the survey "ICSU consultation on Energy"; h) comments on a proposed revision to ICSU statute 5 – the Principle of Universality; i) in giving support to two ICSU grant applications.

With regard to UNESCO, different meetings were held in February 2010 with several officers of the Division of Ecological and Earth Sciences and the Natural Sciences Sector. Main goals of these meetings were to reinforce existing joint initiatives, such as the International Geosciences Program (IGCP), the Geological Applications of Remote Sensing (GARS), the Geoparks initiative, and especially to promote coordination of activities in relation to UNESCO's Earth Sciences Education Initiative in Africa. President Alberto Riccardi sent a letter to each of the IUGS National Committees requesting that they begin to work on behalf of and support the concept of Geoparks. He also informed UNESCO of the IUGS EC decision to support UNESCO's initiative on Education in Africa, and proposed to form a group on UNESCO's Initiative on Education in Africa to coordinate activities, including representatives of the different participating organizations. All these matters were pursued throughout the year.

With regard to the Group on Earth Observations (GEO), as decided during the IUGS EC held in Paris on February 22-25 2010, all the IUGS President wrote to all IUGS Commissions (CGI, GEM, COGE,) and Affiliated members on the general goals of GEO/GEOSS and on GEO's request to identify and nominate candidates to various GEO committees, and to inform in which way they could contribute to the tasks of the 2009-2011 GEO Work Plan. In addition the IUGS President was involved in: a) reviewing the GEOSS Data Sharing Task Force Draft Action Plan (as submitted to the 18th GEO Executive Committee) and Supporting Documents; b) reviewing the GEO 2009-2011 Work Plan version submitted for review; c) reviewing the draft "GEOSS Data Sharing Action Plan for the implementation of the GEOSS Data Sharing Principles"; d) and in actions to propose a candidate to a new Evaluation Team to assess the progress of GEOSS implementation in the areas of Architecture and Data Management. Finally the IUGS President was represented by IUGS Past President, Zhang Hongren, in the Seventh Plenary session of the Group on Earth Observations (GEO-VII), and in the Ministerial Summit, which took place on 3-5 November 2010 at the China National

Convention Centre (CNCC), Beijing, China. A message of the IUGS President was read at the closing session of the Ministerial Summit stressing IUGS connection and involvement with the purposes and activities of GEO and GEOSS, supporting the important efforts being done by the Group on Earth Observations (GEO) to access and apply Earth observations, and endorsing the GEOSS Data Sharing Principles.

The IUGS President was involved in the activities of the OneGeology Steering Group, specifically with regard to: a) adoption of a 7 continent model for OneGeology Steering Group representation; b) implementation of non-for-profit legal entity, "OneGeology Limited" (UK Charity Company Limited by Guarantee); c) the activities of OneGeology in Latin America and especially in Argentina.

With regard to the International Year of Planet Earth, the IUGS President was involved in supervising some aspects of the termination of this initiative and the incorporation of IUGS as International Scientific Partner of the Planet Earth Institute. In addition the IUGS President was invited as a speaker to a Town Hall Meeting on An International Geoscience Initiative, sponsored by the Geological Society of America, the American Geological Institute, the Geological Society of London and the British geological Survey, at the AGU Meeting of the America in Iguazu, Brazil, on 11 August 2011. The speech delivered at that meeting, entitled "Global Research Initiatives in geosciences and Something Else" was published in the September Issue of Episodes. In connection with the legacy of IYPE Alberto Riccardi contacted the YES executive proposing to formalize a relationship and help with their organization.

The IUGS President organized and co-chaired a meeting of the International Geological Congress Committee (IGCC) in Brisbane, Australia, on 24-25 June, 2010. As a result of that meeting the IUGS President invited IUGG to establish a working group to consider coordination of IGC and IUGG Congress and cooperation of Congress activities, and participated of the establishment of a new IUGS-IGCC task force to consider the current separate Statutes and Bylaws of the IGC and IUGS.

On 4-8 October 2010 the IUGS President attended and delivered a speech at the opening ceremony of the Global Meeting "Tectonic Cross Roads: Evolving Orogens of Eurasia-Africa-Arabia" (Ankara, Turkey) organized under the sponsorship of the Geological Society of America.

Messages of the IUGS President were also read at the opening ceremonies of the "International Symposium on Urban Geology" sponsored by the China Geological Survey and the IUGS, which was held in Shanghai, China in 18-21 October 2010, and the 23rd Colloquium of African Geology" (CAG 23) held at the University of Johannesburg on January 8-14, 2011.

The IUGS President also was involved in most administrative and organizational actions dealing with all IUGS internal bodies and external organizations (Permanent Secretariat, National Committees, ICSU, ICSU Regional Offices, GeoUnions, IUGS Committees, Episodes, E-Bulletins, etc.) as well as answering all kind of requests and sending permanent reports and information to the EC and Bureau.

The IUGS President developed the programme for the 50th Anniversary of the IUGS and directed its organization.

During 2010 Alberto Riccardi Chaired the Argentinean Commission on Stratigraphy, that is currently completing the National Stratigraphic Lexicon, and participated as an adviser to the Argentinean Government on mapping activities of the Argentinean Geological Survey and on the Argentinean proposal on the continental shelf under the United Nations convention on the Law of the Sea.

The Committee ACCEPTED the President's report

4.b. Past President's Report - Zhang Hongren

Zhang Hongren attended the "International Symposium on Urban Geology" , which was sponsored by the China Geological Survey and was held in Shanghai, China October, 18-21, 2010. More than 100 participants from China, UK, Germany, Russia, Brazil, Norway, New Zealand, Singapore, India and other

countries participated in the symposium. Mr. Wang Min, Vice Minister of Land and Resources of China presented the Welcoming Address during the opening ceremony. On behalf of President Riccardi, Zhang attended the Symposium, represented IUGS, and gave a speech at the opening ceremony.

With the rapid economic development, urban geology plays more and more important role in sustainable development of the world's mega-cities. The conference's theme was "Urban Geology and Urban Sustainable Development." This symposium was perfectly echoed with the theme of Shanghai Expo 2010: "Better City, Better Life".

Urbanization is an inevitable process in the life of all nations. The developed countries have already completed the process long ago. All of the developing countries, however, still have a long way to go. China, as the largest developing nation, is facing tremendous challenge in the decades to come. Geology should play great role in the planning of cities.

From 3rd to 5th November, 2010, also on behalf of President Riccardi, Zhang attended the Seventh Plenary Session of GEO and subsequent GEO Ministerial Summit on 5th of November. Zhang read the speech written by President Riccardi at the Ministerial Summit of GEO. The Minister of Science and Technology of China, Mr. Wan attended the Summit as the representative of Chinese government.

The interests of GEO intersect with the interests of IUGS. However, GEO is an intergovernmental organization. GEO has incomparably stronger support from the governments of the world. IUGS should position itself. *GEO – See Report*

The Committee ACCEPTED the Past President's report

4.c. Vice Presidents' and Councillors' Reports

Ochir Gerel, Vice President

Ochir Gerel participated in IUGS EC meetings in Paris. and was invited to 117th Annual Meeting of Geological Society of Japan, held in Toyama, Japan in September 17-20 with presentation "Granitoid magmatism in Mongolia: evolution in time, tectonic interpretation and metallogeny" in the session "Tectonics of Asia". Ochir represented IUGS and MGS with greeting speech in the opening and closing ceremony of Geological Society of Japan (GSJ) Annual Meeting. After Meeting she visited Tohoku University, Sendai on September 21-22, 2010, with invited lecture for Master and PhD students at the Central and North-East Asian Study (CNEAS) of Tohoku University, Japan. Message to GSJ published in Geological Society Japan News, and in CNEAS Newsletter article published. Ochir Gerel helped the Geological Survey of Japan in management of preparing Mongolia's 1:1 000 000 map for "One Geology" project, and revised first version of map. She assessed reports of six Affiliated Organizations and one country report.

Ochir Gerel sent to all Affiliated Organizations revised Questionnaires and interpreted received answers (see Task Group report). As a member of IGCP "Earth Resources Group" assessed Annual reports: AR 510, AR514, AR526, AR540, AR543, AR557, and AR582, and Project proposals: PP395, PP597, PP598, PP600, and PP601-Y. In the Mongolian Geological Society Ochir is responsible for science, education and international relation.

Ochir was also involved in the GEOETHICS Working Group and YES Network activity.

Professional activity. 2010 was very busy year. She was involved in teaching of Plate Tectonics and Magmatism for Master, and Theoretical Petrology, Isotope Geology for PhD, and Scientific Methods for Master and MUST PhD students (124 students). She taught Course "Magmatism and related mineralization of Mongolia" for industrial geologists. Supervised and defended 5 Master, and 1 PhD students.

Ochir served as a chairman of Geology and Metallogeny of Mongolia" International Meeting dedicated to "Geological Education-50", held on 15-16 October, in Ulaanbaatar, edited and published "Mongolian Geologist" and 'Geology' journals. Edited and published as a major author book "Intrusive rock of Mongolia" with three maps in the scale of 1:300 000 scale for Paleozoic and Mesozoic intrusive rocks. Led 4

projects, and completed final report of CIDA project “Environmental impact”, Russian Fundamental Fund project “Rare metal granitoids”, and “Mongolia’s volcanic rock database”. She submitted, together with faculties, a 3 years accreditation report of Geology Curriculum. Ochir reviewed two DrSc thesis and one PhD thesis (Russia), and two papers for international journals. She worked as a member of Mongolian Standard Commission in Mining, assessed and approved five standards in ore processing. Ochir Gerel consulted mining company Dacha Capital Ink., and completed two reports: REE mineralization in Mongolia” and “Lithium mineralization in Mongolia,” lead Geoscience Center which provides research for mining companies and industry. As a member of Mongolian Stratigraphic Commission reviewed 12 mapping (1:50 000 scale) reports, and for Geomap-200 project, 12 sheet maps for Western and Central Mongolia.

Jacques Charvet, Vice President

In 2010, Charvet:

- Attended the 38th session of the IGCP Scientific Board, February 17th-19th, delivered a speech on behalf of the IUGS President at the opening ceremony; January 17th, and attended the open session of the IGCP Board on January 19th,
- Attended the 61st Executive Committee meeting at Paris, February 22nd-25th, and organized the excursion of February 20th-21st,
- Attended the subsequent Bureau meeting,
- Provided names of experts to EGN Coordinators for the assessment of new applications, and made himself some assessments,
- Attended the EGN Advisory Committee and Coordination Committee meetings in Manosque, Lubéron Geopark, France, March 29th-31st,
- Represented the President of IUGS at the ICSU meeting of member Unions, in Paris, on April 5th-7th,
- Worked with Colin Simpson, Councillor, on the elaboration of a draft of TOR for the cooperation IUGS-EGN-GGN,
- Attended the ILP Bureau meeting in Vienna, May 3rd, and the conference on Global Geosciences Initiative, May 5th,
- Attended the EGN Advisory Committee and Coordination Committee meetings in Lesvos, Greece, September 28th-29th, and delivered a speech on behalf of IUGS at the Opening Ceremony of the 9th EGN Conference, Mytilini, on September 30th,
- Worked via e-mails with the members of the Task Group on Adhering Members, in order to send a questionnaire and a cover letter for distribution to NC, and collected the replies,
- Worked on a new template for the NC annual reports,
- Checked the replies to the questionnaire and established a synthesis,
- Organized, as a chairman, the meeting of ILP ARC in UNESCO, held on January 18th 2011.
- With Pat Leahy worked on the revision of the IGC Statutes and the IUGS Statutes and Bye-Laws.

The Committee ACCEPTED the Vice President’s reports

Ezzoura Errami, Councillor

During the EC annual meeting held in Paris in 2010, Ezzoura was assigned three main tasks:

1) ACTION ITEM #30Councillor Ezzoura ERRAMI, will produce a report with the assistance of IYPE Executive Director Ed de MULDER that will examine the methodologies used by the various IYPE national committees to see how these can be adapted to the IUGS national committees.

Ezzoura exchanged several emails with Prof. Ed de Mulder, the IYPE executive director, concerning the IYPE NC. She takes this opportunity to thank him for the interactive exchange they had during the last months. His proposition was that the ideal is to have a short face to face meeting in order to discuss that issue. As IUGS president said that it is not necessary at the outset, Ezzoura Errami took some information concerning the IYPE National committees from the IYPE report which was submitted to the UN which she submitted to Ed de Mulder for review but she did not receive any comments but a document written by Ed de Mulder entitled “*A Perspective for National Committees in international geoscientific organizations*” that he asked her to read and to comment.

Referring to the IYPE final report, the success of the IYPE National Committees was particularly related to communication which was a matter of priority both during preparation of the IYPE and throughout the Triennium. The Secretariat and the Executive Director were in frequent contact with the National Committees in order to follow their progress and specific developments and, from time to time, concerning the implementation of their plans. Most of the secretariat's e-mail traffic was with the National Committees, in particular when related to major international events. Apart from electronic contacts, particular attention was given to personal contacts. To that end, a series of meetings with National Committees was organized, often coinciding with major Earth scientific events. Apart from that, the Executive Director met face-to-face with representatives from most of the 80 National and Regional Committees on a number of occasions. Such personal contacts proved to be an effective communication tool between the Secretariat and key individuals at national levels while contributing to the success of the IYPE National Committees.

The standard and most frequently used communication tool was the IYPE website. At least 26 IYPE National Committees developed and maintained their own IYPE websites. The IYPE magazines contained information about the IYPE National Committees and their activities.

The cited points above help to make most of the IYPE National committees active. It is important to note that not all the IYPE National Committees were active instead all this means of communication.

Another point which is very important to mention that the structures of the IYPE National committees (???) are totally different of those of the IYPE National Committees (???) which are functioning as association recognized by the law of the country which could allow them to get funds easily.

Adding to the structures, the composition of the two national committees is totally different. The IUGS adhering bodies are generally related to the organism which is paying the membership fees to IUGS and are generally leaded by administrative staffs.

Ezzoura personally thinks that it is very important to strength the communication between the IUGS Executive committee and the IUGS National Committees (adhering bodies). It is crucial to have the composition of each National committee in order to have more than one contact. Encouraging them to have their own websites could be a first step. In her opinion, Episode should be open to short reports of the activities of the IUGS National Committees.

2) ACTION ITEM #43. President Alberto RICCARDI will send all information regarding the Arab Geologists Association to Councillor Ezzoura ERRAMI who will then sort out the current confusion regarding geological membership in that region.

The Arab Geologists Association appears as representing Iraq as Adhering Member, but its President is from Jordan and its Secretary from Iraq. So it looks more as an Affiliate Organization. Ezzoura duty is to sort out the confusion regarding geological membership in that region.

Ezzoura sent several e-mails to the email addresses provided by Professor Alberto Riccardi but in vain. She did not receive any feedback. Therefore, no answer was given. Ezzoura also contacted Dr. Mohammed Al-Awaah, the Earth Sciences program specialist from UNESCO Cairo office who is in contact with them but he had provided no information concerning the subject.

As the problem could not be solved via email, Ezzoura proposed to the IUGS secretariat to invite the president and the general secretary of the association in order to try to have a face to face meeting with them.

3) ACTION ITEM #62. Councillor Ezzoura ERRAMI will investigate the possibility and cost of producing IUGS world puzzles.

Concerning the puzzle, Ezzoura has received two propositions from Professor Philippe Rossi, the CCGM President that have been submitted to the IUGS Executive committee. Months later Ezzoura received an answer from the IUGS President Professor Alberto Riccardi saying that the IUGS Bureau stated that "the puzzles are too expensive, even in the cheapest alternative, especially in relatively small amounts. Moreover, as the CCGM will be selling the puzzles IUGS would have to do the same in order to avoid to

create problems to the CCGM". Professor Riccardi said that the IUGS EC will discuss this issue during the next EC meeting in Paris during the discussion of the 2011 budget.

Ezzoura has communicated via email the decision of the IUGS Bureau to the CCGM President.

Relationship between IUGS and ICSU-ROA

After the departure of Professor Sospeter Muhongo, the ICSU-ROA past Director, Ezzoura has not received any information from the office. She has proposed to IUGS President Prof. Alberto Riccardi to send a letter to the new Director but she did not receive any feedback. Here Alberto Riccardi pointed out that the letter was sent.

Relationship between IUGS and UNESCO Nairobi Office

The nomination of Dr. Félix Toteux as Earth Sciences program specialist will help to strengthen the relationship and to have an easy contact between IUGS and UNESCO Cairo Office.

Relationship between IUGS and UNESCO Cairo Office

Ezzoura has regular contact with Dr. Mohamed Al-Awaah, the Earth Sciences program specialists in UNESCO Cairo Office however is not well informed about their activities since she has not received information in return.

Evaluation of reports

Ezzoura evaluated 5 reports of the following affiliate organizations:

AAWG	Association of African Women Geoscientists
GSAf	Geological Society of Africa
GV	Geologische Vereinigung
ISRM	International Society for Rock Mechanics
ISSMGE	International Society of Soil Mechanics & Geotechnical Engineering

Promoting IUGS

Ezzoura has distributed all of the IUGS flyers and brochures that were received. A big number was given to all the participants of the 5th conference of the African Association of Women in Geosciences held in 2010 in Ivory Coast. Brochures were also distributed during the UNESCO workshop concerning the Geo-education in Africa organized in Kinshasa (RDC).

Note: Ezzoura will discuss IYPE on 3rd day of this meeting.

Wesley Hill, Councillor

Since her IUGS Councillor appointment began in August 2010, her primary EC responsibilities as assigned have been: the IUGS-YES-IGC Early Career Earth Scientist Essay Contest, IUGS booth and display materials, and the IUGS 50th Anniversary Video.

For the IUGS-YES-IGC-Episodes partnership for the Early Career Earth Scientist Essay Contest, she coordinated the initial organization and planning process between all contest partners, distribution and marketing details, contest guidelines and prize, and collecting submitted applications. The contest was launched in association with the IUGS 50th Anniversary event and winning essays will be published in the June issue of Episodes. IUGS is currently inviting early career geoscientists, 35 years of age and under, to submit an essay on their view of the ***Future of the Geological Sciences*** by 7 March 2011. The winner will receive free registration to IGC and will be acknowledged formally with a Medal presented at the IUGS awards ceremony during IGC.

For the IUGS new booth and display materials, Wesley worked with Rich Calnan, Secretariat, to develop text, design, and layout for the smaller IUGS 'pull-up' exhibit panels. The display booth was used in partnership with IGC during the Geological Society of America's annual meeting Oct 2010 in Denver, Colorado USA. Wesley is currently working with the IUGS President, Alberto Riccardi, on discussions concerning a larger IUGS exhibit booth display (design, shipping details, and price.)

Wesley served as the EC representative responsible for coordinating and developing the IUGS 50th Anniversary Video project in partnership with The American Geological Institute (AGI). IUGS worked with Dr. Colin Mably of Educational Visions and AGI to produce the excellent video previewed during the 21 February celebration event. After video production was complete, Wesley worked with a media company to reproduce copies of the video on flash drives and CD Rom to distribute during the Paris meeting as well as planning for distribution during IGC. IUGS would like to formally thank AGI for donating the use of their geological video archives. Wesley and IUGS would also like to thank The Geological Society of London for securing the narrative voice of Sir David Attenborough for the video.

Wesley additional activities included being the U.S. representative for the Geoparks Network and promoting Geopark efforts within the U.S. Wesley also represented the IUGS EC during The Geological Society of America's Annual Meeting and U.S. National Committee for IUGS. Other activities included reviewing and writing reports for the EC Paris meeting.

Colin Simpson , Councillor

1. IUGS E-Bulletin Editor.

During the period February 2010 to January 2011 a total of 11 E-Bulletins were produced (e-Bulletins #48 to #59) and issued monthly. The most requested placement of items relates to forthcoming conferences. To reduce the overall size of the Bulletin such items are now included in one issue and then added to the IUGS website listing of conferences so that no, or minimum, duplication of such notices occurs.

2. Participation as IUGS representative:

(A) Global Geoparks. As the IUGS Representative on the Global Geoparks Network (GGN) Bureau Colin participated in the Bureau Meeting, Langkawi, Malaysia, 11 April 2010, which was held in conjunction with the 4 International Conference on Geoparks (ICG2010). The meeting was productive and Colin was invited to Chair the Bureau meeting for one half day.

During the ICG 2010 Conference Colin placed a bundle of 100 IUGS leaflets near the main entrance door and all of the leaflets had been taken by attendees within 2 days of the 3 day program. The IUGS logo was shown in several presentation slides during the conference.

Jacques Charvet and Colin have collaborated in the preparation of the TOR for IUGS-GGN/EGN Collaboration for assisting in identifying suitable geoscientists to undertake Geoparks Assessments. The TOR will assist future EC representatives to understand the role of the IUGS in assisting the GGN/EGN. The primary role of the IUGS is in providing the GGN/EGN with contact details of geoscientists who can assist with reviewing Assessment documents for Geoparks applications, or term renewals, preferably by appropriate geoscientists living in those countries. During 2010, with assistance from Peter Bobrowsky's IUCN reviewer's information, they were able to provide the GGN with several names of potential assessors of Geoparks Applications.

Due to a clash of dates with the IUGS-GEM Commission annual meeting at which the IUGS ARC was programmed Colin was unable to attend the 9th European Geoparks Conference held on Lesbos Island, Greece (1 – 5 October 2010) during which a GGN Bureau meeting was also held.

(B) Australian Earth Sciences Convention 2010. Colin participated in this Convention held in Canberra, Australia, on 4-8 July 2010 and delivered a paper "Preserving and Promoting Australia's Minerals Industry Heritage". At that Convention Colin also distributed a quantity of IUGS leaflets via the IGC booth.

3. Ad hoc Review of the IUGS Commission for the Geoscience for Environmental Management (GEM)

As requested at the 2010 EC. meeting in Paris an Ad hoc Review of the CGI was conducted 2 October 2010 Namibian Geological Survey Building, Windhoek, Namibia to coincide with the GEM Annual Meeting there.. The Review Committee Members were Colin Simpson - IUGS Councillor (ARC Chair), Peter Bobrowsky - IUGS Secretary-General (ARC Secretary), Gabi Schneider, Director Namibian Geological Survey, and Geoff Grantham, Geologist (and member of the South Africa Council for Geoscience). All the GEM Commission members present at the GEM Annual Meeting participated in the Review. The Review Report was compiled by Peter Bobrowsky and passed to all Review Committee members for comment and editing then the final

version was distributed to E.C. Members.

4. Involvement in IGC 2012 Australia

Since his appointment as one of the joint organizers for the Scientific Program International of the Australian 2012 IGC Organising Committee Colin has participated in all main meetings of the Organising Committee and is actively involved in the planning arrangements.

5. Episodes item

Colin wrote an article on his profile which Alberto Riccardi kindly edited before it was sent to the Episodes Editor. It was published in the September issue (Vol. 33 No. 3).

Sampat Tandon, Councillor

- Obtained a general understanding of the structure, functioning and activities of the IUGS.
- Interacted regularly with the editor of Episodes, particularly for increasing its circulation within the country. Also participated in the discussion that took place on the various aspects of the publication of Episodes in the office of the Geological Society of India with the IUGS Bureau on the 21st January 2011.
- Participated in the email discussion during the past five months on various issues.
- Made an assessment of the status of inactive members and initiated action for establishing contacts with colleagues in different countries.
- Participated in the Bureau meeting held in Bangalore on the 21st and 22nd January.
- Promoted the activities of the IUGS and related organisations in various earth science organizations in India.
- Acted as the rapporteur for the EC meeting for the annual reports of some of the affiliated bodies.
- Elected as the Vice-President of the Geological Society of India for three years
- Attended the first meeting of the GSI council in Bangalore held in January 2011.

The Committee ACCEPTED the Councillor's reports

At this time Alberto Riccardi welcomed Dr. Cecilio Quesada who represented the National Committee of Spain, Patrick O'Connor of Ireland, the Chair of TECTASK Commission, Professor Cess Passchier, the Secretary General of IUGG, Dr. Alik Ismail-Zadeh, National Committee of Colombia, Dr. Michel Hermelin and the Representative of Slovenia, Dr. Mirka Trajanova. .

4.d. Secretary General's Report -- Peter Bobrowsky

In 2010, the Secretary General's office acted alone given the requested resignation of David Huntley at the start of 2010. Bobrowsky's activities were generously supported by the Government of Canada, Geological Survey of Canada (salary, travel, etc.). In his capacity of Secretary General Bobrowsky attended the following 2010 events:

- IUGS Website training course in Calgary, Alberta, Canada (Jan)
- IUGS 61st Annual Meeting of the Executive Committee in Paris, France (Feb)
- IGCP Bureau Meeting in Paris, France (Feb)

- EuroGeoSurveys annual meeting in Brussels, Belgium (Mar)
- GeoUnion meeting in Paris, France (Apr)
- Canadian National Committee for IUGS in Calgary, Canada (Apr)
- Fangshan Geopark Opening in Fangshan, China (May)
- IGCC meeting in Brisbane, Australia (June)
- Ad hoc review committee evaluation of GEM in Windhoek, Namibia (Oct)
- Geological Society of America Annual Meeting, Denver, USA (Nov)

Primary activities during 2010 included:

- Deliberations with IGCP Bureau, Board and Secretariat for financial allocations, project approvals and reporting/assessments
- Provision of information updates to the IUGS Executive Committee
- Contributions to IUGS Bureau actions and decisions
- IUCN liaison for World Heritage Evaluations
- Interactions/actions with IUGS Commissions and Task Groups
- Interactions/actions with Episodes editorial staff
- IUGS website development, management and maintenance
- Production assistance (to Wesley Hill) of IUGS 50th anniversary video
- Letters of invitations for project cooperation on behalf of GEM WG on dust
- Member of the Canadian National Committee for UNESCO GeoParks
- Liaison to the Canadian Commission to UNESCO office
- Secretary of ARC (with Colin Simpson and others) on GEM
- Interactions/actions with 34th and 35th IGC LOC
- Ex-officio member of CNC IUGS and CNC IGCP
- Member of IGU Commission on Geoparks
- EC member visa letters

The Secretary General also provided routine responses, assistance and administrative actions dealing with the Permanent Secretariat, National Committees, ICSU HQ, ICSU ROs, GeoUnions, Episodes, the IUGS website, E-Bulletins, OneGeology, IGCC, EuroGeoSurveys, YES, Geological Society of London Publications House, AGI, GSA, EGN, etc. as well as responding to requests from within the IUGS EC.

The Committee ACCEPTED the Secretary General's report

4.e. Treasurer's Report -- William Cavazza

William reported that the total in the bank at present is \$1,229,890.24 USD.

- The balance surplus is \$147,135.39 USD
- 19 countries paid dues in 2010, a chart is included in the report that was submitted to the EC and will be discussed later during this meeting.
- Membership proceeds are approximately \$350K USD)
- The Treasurer's Report is included in the Appendix.

REALIZATIONS 2010 - 31st December 2010 BANK ASSETS/CURRENT ACCOUNTS

Total \$470,037.67/\$573,343.82

Grand Total = \$1,229,890.24 USD

The Committee ACCEPTED the Treasurer's report

4.f. Rich Calnan, Permanent Secretariat's Report - Rich Calnan

OVERALL OBJECTIVES

- To work in close contact with Bureau and EC members;
- To facilitate communication among various IUGS Bodies;
- To develop and maintain non-geological databases (addresses, IGCP);
- To assist Bureau and EC members with administrative services, when required and possible (e.g. mass mailings, proof-reading, photocopying, forwarding of various IUGS documents);
- To organize IUGS-related meetings;
- To inform IUGS related bodies of activities of the IUGS EC (transcribing and distribution of minutes);
- To archive IUGS materials related to the above objectives.

ORGANIZATION (broad description)

The IUGS Secretariat consists of one half-time Executive Secretary, Richard Calnan and two part-time office assistants (Nancy Zeigler and Freeha Aslam).

EXTENT OF NATIONAL/REGIONAL/GLOBAL SUPPORT

USGS provides most of the expenses (office space, salary, plus travel) of the Secretariat. IUGS contributes up to \$15,500/year (USD)

CHIEF ACCOMPLISHMENTS IN 2010 (other than routine)

- Revised FM database of 12,000 emails by names, bodies and positions;
- Distributed 11 E-Bulletins to over 12,000 persons (each mailing);
- Designed and distributed logo for 50th anniversary;
- Designed and ordered one new, complementary pop up poster (IUGS and IGC);
- Assisted in the production and distribution of a new video;
- Conducted an inventory of IUGS materials;
- Prepared and staffed IUGS/IGC booth at GSA in Denver, CO.
- Produced and sent 350 invitations to 50th anniversary celebration;
- Worked with UNESCO staff on IGCP support.

CHIEF PROBLEMS ENCOUNTERED IN 2010

- Although the IUGS Secretariat has adapted to the new location in Reston, the volume of electronic communication is quite large.
- No one individual was focused on Secretariat duties on a full time basis.
- Some deadlines were not met.

CRITICAL MILESTONES TO BE ACHIEVED NEXT YEAR

- 50th Anniversary Celebration of IUGS, 2011
- 40th Anniversary Celebration of IGCP, February, 2012
- 63rd EC Meeting, 2012
- Joint (with IGC) Booth at GSA, Minneapolis, MN, USA in October, 2011
- Preparations for IGC, Brisbane, August, 2012

ANTICIPATED RESULTS/PRODUCTS NEXT YEAR

- The 50th anniversary celebration will be started in Paris in Feb., 2011
- The 62nd EC meeting will be hosted at UNESCO in Paris, 22-25 Feb., 2011
- Distribution of a new video on IUGS will start in Feb., 2011.
- IUGS and IGC will share an exhibit booth at GSA in Minneapolis, MN in USA in October, 2011.

The Committee APPROVED the Secretariat's report

5. ANNUAL REPORTS AND FUTURE PLANS OF IUGS BODIES

5.a. COMMITTEES

5.a.1. Nominating Committee (NC) – Zhang Hongren

The Nominating Committee was appointed at the last IUGS Council Meeting in Oslo. The Committee is to recommend a slate of candidates for officers of the Union for the next term of IUGS Executive Committee.

The members of the Committee are:: Zhang Hongren, (Chairman, China), Ryo Matsumoto (Japan), Elena Centeno-Garcia (Mexico), Peadar Mc Ardle (Ireland), Jonas Satkunas (Lithuania), Felix Toteu (Cameroon) and Marita Bradshaw (Australia). Although Felix Toteu will resign.

As reported at the last EC meeting in Sydney, the Nominating Committee was to start its work after the midway of the current term. Last year, a letter of invitation has been drafted and a form of recommendation has been designed following the tradition of ICSU and IUGS. These two files have been approved by all the members of the Nominating Committee.

Initially, the files were to distribute among the members of IUGS before the end of last year. But, some of our colleagues suggest that it is too early to initiate the process. It would be better to send the invitations immediately after the EC meeting in Paris , as now the Secretariat is quite busy with the organization of the Paris meetings.

It is consideredf that a circular should be sent in March and a deadline could be placed in May or June. Thus, the NC will have the second part of 2011 to discuss the issue, and the list of candidates should be ready for the end of 2011.

The Committee ACCEPTED the Nominating Committee's report

5.a.2. Publication Committee (PC) – Spilhaus

As indicated in Action item #2 from the 61st IUGS Executive Committee Meeting a new Mandate and Terms of Reference for the Publications Committee are proposed

The PC recommends changes as follows that will as sure e that the mandate will adjust to EC needs and the publishing environment through time and encourage continuing improvement in the Union's support of both individual scientists and research activities.

1) An amendment to the Statutes of the Union, as follows:

The Committee for Publications shall maintain high standards through up to date and effective policies and procedures related to all publications of the Union and of its Commissions in all publication outlets and formats. It will also review all applications to the Executive Committee for funds involving publication and report back their recommendations on those proposals. The Committee for Publications will also serve as an adviser on publication standards, methods and techniques in the presentation of earth science results.

2) New Terms of Reference as follows:

The PC shall maintain a continuous review of the publication activities of the Union to assure that the mandate of the IUGS statutes is met. The PC will monitor the performance of IUGS activities, including publication agreements, and other publishing connected in any way with the Union and will

report to the EC at appropriate intervals. The PC shall review proposed IUGS publications not included under routine publication agreements. The PC will, in its discretion, assist with alternative publication means. The PC shall maintain liaison with affiliated and editorial societies internationally in order to promote publications from developing countries and make contact with expertise and programs that may be helpful to IUGS. The PC is available to assist EC and the secretariat by providing review and editorial services on promotional materials meant for wide distribution.

The PC has also:

- Developed new mechanism for working with the Editor to be discussed later in the meeting.
- Move forward with the re-structuring of the Board and stagger regeneration each year.
- IUGS Logo – should assure quality of the material to the PC Committee or another Group before implemented.

Comments:

- Posters for meetings – need to review before moving forward.
- Suggestion made by Peter Bobrowsky to have a Publications meeting to include: cost of publications
- Pat Leahy considered that Episodes should migrate to an electronic version to save money.
- Need to consider commitments to others.
 - Springer poster for the IUGS 50th anniversary gave idea that preferred publisher was Springer.
 - Valued greatly want to look at subsidiary publishing's.
 - IUGS may be over advertised by Springer.

Springer has no arrangement with IUGS. Springer – IYPE series is a different deal. If IUGS logo was used it was not with the concurrence of IUGS.

ProGeo – used the IUGS logo with authorization of the IUGS Secretary General, ICL made a deal with Springer for landslides and used logos of various groups.

In summary:

- It was instructed to all IGCP projects to go through GSL.
- Springer should be informed that they can not use the IUGS logo without authorization.
- For meetings the logo should be used with prior approval.

The Committee ACCEPTED the Publication Committee's report and AGREED on the following actions:

ACTION ITEM #1: The Chair of the Publication Committee (PC) Fred SPILHAUS should organize a physical meeting of the entire committee within the next few months to ensure delivery of outstanding items and obligations.

ACTION ITEM #2: President Alberto RICCARDI will write to Springer and inform them that they should not use the IUGS logo on their publications without written permission from the IUGS PC.

ACTION ITEM #3: The Chair of the Publication Committee (PC) Fred SPILHAUS to provide a written recommendation/strategy to the EC regarding the use of the Union logo for various types of publications, and specifically with regard to those that were accepted by other publishers after being rejected by GSL

5.a.3. Strategic Planning Committee (SPC) - Boriani

In March 2010 Boriani sent the SPC members the **TOR** of the SPC, the **Strategic Plan** of 2000 (in the IUGS

website), and the two documents: **Strategic Action Plan (2002)** and **Mid-Term Vision and Strategic action Plan (2004)**, which was not approved by the IUGS Council. The SPC members were asked to send comments by the end of May 2010, on the 2000 Strategic Plan and its implementation. The discussion developed by E-mail; the responses allowed the preparation of a first draft to be discussed in a meeting of the SP Committee in connection with the IUGS EC Meeting of February, 2011.

The plan is to prepare a second draft in time to allow the IUGS EC to discuss, amend and eventually approve it in its meeting of 2012, in time for its distribution to the Council Members well in advance of the Brisbane Congress.

Strategic Planning Committee: (Chair: Attilio Boriani) Members: Kristine Asch, Jacques Charvet, Peter Cook, Stan Finney, Ochir Gerel, Gary Lewis, Kevin Telmer, and Umberto Cordani.

The Committee ACCEPTED the Strategic Planning Committee's report

5.a.4. Finance Committee (FC) - Brambati

The FC proposed a document indicating possible approaches to its activities.

Different comments are offered:

- Arne Bjorlykke mentioned that attempts to acquire outside funding resulted in that donors do not want to give funding to an organization but are more receptive to special projects.
- Stan Finney noted that it is important that the committee should be the first to donate funds. Those involved in raising funds need to have the first stake.
- It is also suggested the need to establish a donor leaflet document on accomplishments of the organization.
- It is also mentioned that industry sponsorships are not easy to attain -- IUGS and IGCC have not benefited from them.
- Now is a good time to start and build on the 34th IGC.
- No one gives funding without some type of return benefits must be available on both sides.
- Industry lacks of trained workers, a work force must be built over time and it is a long effort.
- Energy companies will work with you if you are willing to listen.
- FC should be considered in the statutes of the IUGS. The Union should have a FC to take care of the things mentioned in the document. . The FC should advise on the auditing of the accounts and have some input on the modification of the statutes. This document is a good start.
- It is important that SPC, FC and statutes committee should communicate. .

The Committee ACCEPTED the Finance Committee's report and AGREED on the following action:

ACTION ITEM #25: President Alberto RICCARDI to ask the Finance Committee, Strategic Planning Committee and Statutes task group to coordinate the documents on which they are working.

5.a.5. Ad hoc Review Committee (ARCs) – Peter Bobrowsky

Report on the Ad hoc Review of the IUGS Commission on Geoscience for Environmental Management (GEM)

Date and Venue of the Review:

2 October 2010 Namibian Geological Survey Building, Windhoek, Namibia.

Ad hoc Review Committee Members:

Colin Simpson – IUGS Councillor (ARC Chair)
Peter Bobrowsky – IUGS Secretary General (ARC Secretary)
Gabi Schneider – Director (Namibian Geological Survey)

GEM Member Participants:

Kevin Telmer; Qingcheng He; Jonas Satkunas; Daniel Stapper; Ben Mapani; Sulemana Al-Hassan; Mihir Deb; Monica Jaramillo; Philipp Schmidt-Thome; Igor Zekster; Hisashi Nirei

1. Rationale for the Review

In the early 1990s the IUGS Commission for Geosciences and Environmental Planning (COGEOENVIRONMENT) was formed under the umbrella of the International Union of Geological Sciences to address geological issues of an environmental nature. After a successful period of operation, this Commission was formally closed on the occasion of the 2004 IGC in Florence, Italy. At the same congress, a new Commission entitled Geoscience for Environmental Management (GEM) modelled on the previous COGEOENVIRONMENT Commission was proposed, approved and ratified by Council. With a revised mandate and different Terms of Reference, a new team of Officers for GEMS was appointed for the timeframe 2004-2008. Subsequently during the 2008 IGC in Oslo, Norway another team of new officers was elected and endorsed by the IUGS-EC and ratified by Council for the period 2008-2012.

As specified in the Statutes and Byelaws of the Union, the IUGS EC is required to undertake a formal review of all Commissions and other bodies funded by the Union on an approximate 4-year cycle. These reports provide accountability for the expenditures incurred by the Union. Consequently, during the Annual Meeting of the IUGS Executive Committee in January 2010 a decision was made that the GEM Commission should be reviewed within the next year. As a result a Review Committee was established comprising two EC members: C. Simpson (as Chair) and P. Bobrowsky (as Secretary), plus two external reviewers: G. Schneider and G. Grantham. The GEM Commission officers were duly notified of the forthcoming review requirement and they were provided with all relevant documentation regarding the review process (e.g. ARC guidelines, and so) prior to the review itself.

The ARC Chair compiled as much background information as possible regarding the past activities of the GEM Commission including copies of recent annual reports for the period 2004-2008, the 4-year report (2004-2007), and further referred the ARC members to the GEM website at <http://www.iugs-gem.org/>. This material proved useful in the evaluation process.

2. Information to be considered

At the start of the review process in Windhoek, the ARC Chair Colin Simpson outlined the Terms of Reference (TOR) of IUGS Ad-Hoc Review Committees (previously sent to the GEM Commission). The ARC Secretary Peter Bobrowsky then presented information as background for the review, the requirements for routine IUGS reviews of Commissions as per the Statutes and Byelaws, the types of issues normally addressed during reviews, and the overall process that would be followed during the GEM review to all participants. He specifically outlined the "Report of IUGS Commission 8 on IUGS Rules for Commissions, Task Groups, and Projects" to all those in attendance.

3. Summary of the interviews with GEM Review participants

The ARC addressed a range of items, topics and issues relevant to all Commissions in general, but also focused on particular items important to the GEM Commission:

- progress relative to the original planned activities over the past 4 years;
- mandate and structure delivery and evolution in both;
- events, products and activities in the Commission during the past 6 years;
- problems, constraints and barriers encountered by the Commission;
- financial situation and history of the Commission;
- GEM Working groups and their progress during the past 6 years;
- relationships with the IUGS and other international bodies; and
- their proposed future and history after 2012.

The GEM participants supplemented their replies primarily by reference to relevant items from their website.

The primary mechanism for the GEM Commission to address science occurs through seven (7) focused Working Groups:

1. Forensic Geology

2. Gold and Mercury
3. Dust
4. Man-made Strata and Geo-pollution
5. Communicating Environmental Geoscience
6. Climate Change Adaptation
7. Land Subsidence and Groundwater

All of the GEM activities listed here have proven to be very relevant, timely, and are attracting global attention, interest and participation.

One significant milestone of the Commission is their new website. Recently updated and restructured their site now provides a site documenting the Commission meetings, courses, events, publications and other activities related to their Working Groups and therefore provides a good historical archive of the Commission achievements. An innovative modification to the website is the ability for members to communicate interactively and in real time via a member secured channel on the web. Materials are easily added, modified and immediately uploaded to the site through this interactive capability.

During the first 4 year term of the Commission, three Working Groups: Geology and Ecosystems, International Cross-Border Geology and Urban Geology successfully reached their objectives and closed. The GEM website clearly summarizes the many activities and outputs (meetings, courses and publications) of these 3 previous Working Groups.

At the moment active members in the Commission comprise 20 individuals from 12 Nations as well as an additional 70 Corresponding Members representing from 43 countries, which is recognized as a reduction in the number of such members supported by the predecessor COGEOENVIRONMENT (see issues). The turn over of officers, ~50% in the last 4 years is both positive (fresh ideas) and negative (loss of corporate knowledge). In the past year the GEM Commission website received 1,237 visits came from 69 countries/territories.

Since 2009 the Commission has modified the structure of the annual general meetings by reducing the time spent on administrative meeting issues (from 2 to 1/2 day) and added the delivery of locally relevant workshops based on the Working Groups. This innovative shift in philosophy provides a number of positive stimuli: encouraging greater participation by Commission members in the AGM, stimulating growth and attention to the aims of the working groups, enhancing the visibility of the earth sciences to those outside of the discipline, and promotion of the Union.

The Commission plays a major role in a global United Nations Environment Program (UNEP) treaty dealing with small scale mining and the problems of mercury. In this regard GEM has given the IUGS visibility and credibility to a new suite of clients within the UN system. The Working Group on Forensic Geology (the application of geological knowledge in assisting forensic investigations) is strongly focused on law enforcement entities and has already developed a significant international network of clients to include groups outside of the traditional geosciences.

Issues

Challenges shared by GEM and other IUGS Commissions are their ability to attract additional people, acquiring general assistance, and obtaining financial support from the outside. In particular, the Commission has had problems keeping a stable Secretary General position and as a result this impacted on their ability to adequately communicate with the IUGS EC and others during the past 1.5 years; a problem which remains unresolved. Similarly, the Commission temporarily addressed the lack of an Information Coordinator, allowing them to modify and update their website, but given that the vacancy remains unresolved, this remains a critical concern relative to the long term sustainability of the site and the functions of the Commission.

Funding for international activities is a problem given that such activities are expensive, but GEM has managed to find a few sponsors. In short, the Commission has managed to leverage about 90% of their operating funds from the outside (~10% of the annual budget comes directly from IUGS). A lack of travel

money means that it is difficult to get people in various countries involved in GEM activities. At a minimum the Commission requests sufficient funds to bring all GEM officers to the annual general meeting.

The Commission officers acknowledged that their greatest weakness is in the communications area. Though they have developed an excellent communications platform, the Commission's significant turnover in members has resulted in a need for a communications strategy and a Communications Officer. They would welcome IUGS EC suggestions as to how the Commission can fill such a new position, and how to better advertise/promote the Commission.

The reduction in Corresponding Members during the past decade, and the lack of a strategic plan to recruit new members, suggests the products and outputs of the Commission are reaching a smaller group of individuals, and the reduced number of Members would also limit the potential for finding new Members to volunteer to undertake active roles in GEM positions.

The ARC notes that in 2009 the Commission helped launch a new activity in Forensic Geology. This sub-discipline of research involves the cooperation of geoscientists with non-geoscientists (primarily law enforcement and forensic officers). It has already established a growing international network which is now receiving requests from various police groups for assistance, or the contact information of experts. Like the previous rise of Medical Geology in the Commission and IUGS, the ARC recognizes that this new multidisciplinary effort provides many exciting opportunities to expand the relevance of geosciences by increasing the number of stakeholders by IUGS promotion of this developing sub-discipline through its worldwide network.

Ad hoc Review Committee On-Site Comments

During the Review the ARC Members made comments/suggestions aimed at improving GEM activities. Below is a list of comments made:

- Shift current reliance on new web technology which inhibits Commission visibility while improving internal communications. Unless individuals are already interested in GEM they would not otherwise access the site and those with limited access to the internet (e.g. many in Africa) have no way to stay abreast, as such, regular effective external communiqués are still very much required.
- Need to clearly identify the advantages of membership in their Commission and distribute this fact sheet extensively as part of a recruitment strategy.
- Consider applying for ICSU grants to obtain additional funds.
- Consider reducing the total number of Working Groups (see Recommendations) to allow available funding to be more effective.
- Expand the network of collaboration for all Working Groups (at the moment a few Working Groups excel in this effort).

4. Conclusions and Recommendations

Since its formal reactivation in 2004 the GEM Commission has made significant advances in their efforts to address key geoenvironmental issues of global relevance on behalf of the IUGS. The ARC recognizes and commends several noteworthy achievements by all members of the Commission including, but not restricted to, the following: sharpening the focus of individual Working Groups; outstanding performance by a number of Working Groups; developing and utilizing web based internal communication platforms; creativity in accessing external funding support; and above average attention in the use of Episodes for publication. (The activities and achievements of the Commission and its Working Groups are outlined on the IUGS-GEM website)

Based on this review the ARC Committee recommends the following:

- 1 The Commission should resolve their interim solutions regarding vacancies in the positions of Secretary General and Information Officer as quickly as possible.
- 2 The Commission needs to develop and implement effective strategies for both Corresponding Membership recruitment, and for Commission communications.
- 3 The Commission must demonstrably improve the regularity and effectiveness of communication with the IUGS EC.
- 4 The GEM ARC recommends the IUGS EC continue to support the Commission until next IGC in 2012.

- 5 The GEM ARC recommends conditional extension of the Commission for one extraordinary additional term of 4 years in 2012 following satisfactory resolution of points 1, 2 and 3 before the end of 2011.
- 6 The Working Group on Forensic Geology warrants immediate elevation to IUGS Initiative status to assist with the development and promotion of this technology.

The ARC members acknowledge the exceptional productivity, and Union support provided by the GEM Commission for the past several years. The ARC members appreciate the local and national financial support, logistical assistance and generosity provided by the Government of Namibia via Dr. Gabi Schneider (Geological Survey of Namibia), and Dr Ben Mapani (University of Namibia) in the implementation of this review process.

The IUGS EC members offer special thanks to Dr. Gabi Schneider and Dr Geoff Grantham for their assistance on the Review Committee.

ILP Review

The International Lithosphere Programme is a joint IUGS-IUGG activity. The ARC is therefore formed by IUGS and IUGG members. As the IUGG did not agree on a personal meeting with ILP officers and preferred a review by electronic means, the IUGS decided to conduct first a review according to its own rules.

IUGS ARC members were Jacques Charvet and William Cavazza.

The President and the Secretary General of ILP easily accepted to meet the IUGS ARC members in Paris, for the interview meeting.

The ARC members acknowledge the exceptional productivity of the ILP and the IUGS support provided to the ILP for the past thirty years.

Based on this review, the ARC Committee recommends the following:

1. An improvement of the report, maybe through a template imposing one page devoted to the scientific results of each Task Force.
2. A better integration between IGCP, especially within the theme “Deep Earth”, and ILP should be pursued.

The IUGS EC members offer special thanks to Dr. Robert Missotten and the entire Division of Ecological and Earth Sciences at UNESCO for hosting the Review Committee.

Now the IUGS-IUGG ARC must agree on a common report and this should be submitted to the IUGS and IUGG with a copy to be forwarded to the group being reviewed. According to IUGS TOR the Group being reviewed has the right to forward comments within six (6) weeks from the date that the Secretariat has distributed the ARC report. The Secretariat will then distribute the report and comments received to the all members of the Executive Committee for consideration and electronic discussion (by e-mail). Once the ARC report is approved by IUGG and the IUGS, this will be informed to the ILP.

The Committee ACCEPTED the ARC's reports

5.a.6. Proposals for new IUGS Committees

There are no proposals.

5.b. COMMISSIONS

The Committee AGREED on the following action:

ACTION ITEM #4: IUGS Secretariat to provide pdf copies of all Commission and Task Group reports to Secretary General Peter BOBROWSKY for immediate uploading to the website.

5.b.1. Geoscience for Environmental Management (GEM) – Peter Bobrowsky

The annual general meeting of IUGS-GEM was held at the Ministry of Mines and Energy, Windhoek, Namibia from 2nd to 8th October 2010. It was supported by the Geological Survey of Namibia and coordinated by Dr Ben Mpani of the University of Namibia, Department of Geology, and the GEM Chair (Dr Kevin Telmer, University of Victoria, Canada). Numerous meetings, presentations and debates took place during the IUGS-GEM annual meeting. Thorough reviews of working group products and activities of 2010 are available in the 15th and 16th newsletters of the IUGS-GEM (August 2010; and January, 2011); below 2010 highlights of the working groups are briefly outlined.

Land Subsidence and Groundwater, led by Dr. Qingcheng He

- Participated in symposium in November in China.
- Next year joining symposium in March in Bangkok with Ground Water Source Contaminants
- WG has numerous close connections with ongoing projects in China and Bangkok
- Is focus on case studies for forthcoming publication with a South-east Asia focus
- Final report is projected to come in 2012 or 2013, depending on funding
- External! Project funding is expiring and WG is in search of ongoing funding and co-funding
- Considering participation at IGC in 2012.

Communicating Geoscience, led Dr. David Liverman

- The working group maintains a network of fifty geoscientists
- No changes to recruitment and management
- Publication is being worked on for Episodes
- Meeting in Calgary was very successful
- Funding has been provided by institutional organizations of administrative members
- 2011 is expected date for episodes publication.

Dust, led by Dr. José Centeno and Dr Brían Marker

- Working group still in early days.
- Initial steps were to seek partnerships with other key international association and unions leading to five encouraging responses for collaborative arrangements.
- Paper on dust from mining operations being prepared in collaboration with new contacts in Namibia and South Africa
- Session on dust and health secured for Medical Geology conference in Bari Italy
- Session on dust secured for IGC2012 in Australia
- Volcanic dust meeting being arranged for 2013
- 2014 is likely date for a publication of a book on dust issues and responses.

Forensic Geology, led by Dr. Lawrence Donnelly

- Progress on the development of the international Geoforensic Network (GIN) has been very successful
- Two publications in two different magazines and numerous presentations to a variety of audiences
- Representation at INTERPOL conference in Europe
- GIN has a steering committee of 15 members external to GEM consisting of geologists, police and

associated forensic scientists

- GIN currently consists of 57 members from about 30 countries
- Significant in-kind contributions will help to produce document to be called 'A Guide to Forensic Geology'
- Funding is being sought for a publication: A draft is aimed to be completed in 2012

Gold and Mercury, led by Dr. Kevin Telmer

- First workshop on Artisanal and Small Scale Gold Mining was in Ghana in October 2010, prior to the GEM AGM: several ASGM sites were visited; the socio-economics of the communities and alternative technologies to mercury use and other environmentally damaging practices were evaluated
- A Ghana ASM document, heavy in graphical content, has been written and will be submitted for publication.
 - Co-funding, including cash expenditures of ~US 6000, acquired for meeting in Ghana through the Artisanal Gold Council! (AGC): the Artisanal! Gold Council is a Canadian Non-profit organization and partner of UGS-GEM. Kevin Telmer is the executive director of the AGC. Both organizations (AGC and IUGS-GEM are members of the UNEP Global Mercury Partnership.
- In 2009, at the Meeting of the Governing Council of the United Nations Environment Programme (UNEP) in Kenya, more than 130 countries came to consensus and agreed to negotiate a globally binding legal instrument on mercury and mercury compounds. In January 2011 at the second meeting of the International Negotiating Committee, it was agreed that the treaty will be named after Minamata, Japan, location of the 20th century's most tragic mercury poisoning occurrence impacting 10s of thousands of people.
- The IUGS-GEM working group is contributing to the UNEP Technical Document on ASGM. This document will go to the 130 country delegations participating in mercury treaty process and be distributed within each country. WG plans to expand the structure of this document to submit a paper to Episodes.
- Anticipate book to be published by end of 2012.

Climate Change Adaptation, led by Dr. Philipp Schmidt-Thome

- Working Group has two books on the way
- Climate vulnerabilities in Europe (Wiley & Blackwell) numerous contributors; methodology for developing and understanding vulnerabilities is a principle theme.
- Climate Change Adaptation - Implementing Strategies in the Baltic Sea Region by Philipp Schmidt-Thomé, Geological Survey of Finland and Jörg Knieling, HafenCity University Hamburg.
- IUGS-GEM logos will be on books.
- Joy Pereira has been confirmed as co-chair for Asia for this working group. She will be responsible for Chapter two of IPCC chapter two reports in 2011. Italian participants are corresponding members and have shared publication. Funding for outputs and publications is secured. Searching for co-funding.

Man Made Strata and Geopollution, led by Dr. Hisashi Nirei

- Publications in various journals have moved forward.
- Have presented at several successful workshops
- Recruitments active in Lithuania, Japan, and Uruguay
- Questionnaire has been circulated and new members may result from this exercise
- Currently funding is secured external to GEM, although Co-funding still required for travel
- Have submitted a proposal to IGC in Australia to present a session in 2012
- Outcomes of TOR should be complete by end of 2012.

The Committee ACCEPTED the GEM's report and AGREED on the following action:

ACTION ITEM #54: President Alberto RICCARDI to inform the Chair of GEM Kevin TELMER that he is not pleased with his lack of response and will request a confirmation of proactive change.

5.b.1.1 New Initiative: Forensic Geology - Donnelly

PROPOSAL FOR NEW IUGS INITIATIVE ON FORENSIC GEOLOGY

Introduction

Forensic Geology has experienced somewhat of a renaissance since 2002. There have been at least 14 international meetings on or including Forensic Geology, 5 books and numerous articles in scientific journals, conference proceedings and magazines. Forensic Geology continues to grow in popularity around the world in both academia and within the geology profession. This document provides a summary of the historical and recent developments in Forensic Geology and it outlines the current and future potential benefits to geoscience and IUGS (this information is based on previous or pending publications and documents produced elsewhere) so that this Working Group can be considered as an INITIATIVE within the IUGS.

Definition

There have been several attempts to define Forensic Geology and given recent advances in the subject there is the need for a formal definition. However, for the purposes of this document Forensic Geology (also known as Geoforensics or Forensic Geoscience) may be regarded as: 'the application of geology to criminal investigations, which may come before a court of law'. In a law enforcement context Forensic Geologists may support the police in two broad fields of geoforensics, these are; 'geological (trace) evidence' and 'search'. Forensic Geology may include for example; domestic incidents, murder, assassinations, rape, theft, international terrorism, humanitarian, environmental, geohazards, mining, geotechnical, civil engineering, materials engineering and fraudulent investigations. Geoforensic specialists may support law enforcement investigations to help determine what happened, where and when it occurred.

History of Development

The application of geology to criminal investigations has been documented since the middle part of the nineteenth century. In 1856, Professor Christian Gottfried Ehrenberg, working in Germany, was able to assist the police by identifying the provenance of sand (using microfossils present in the sand), which had been put into barrels in place of the stolen silver. In fiction, Sir Arthur Conan Doyle, in his Sherlock Holmes stories referred to geology, for example; 'by the colour and consistency of mud splashes on his trousers, Holmes could tell which part of London Dr Watson had been walking'. By the early 1900s, practitioners were using the microscope to identify mineral grains, microfossils, rock fragments or materials derived from rocks and minerals (e.g. brick, glass, slate) on clothing or objects obtained from offenders and suspects; to determine if there was an association. On this basis Hans Goss (1847-1915) and George Popp (1867-1928) were able to help bring some murder cases to successful prosecution. Their investigations were based on the Locard Principal (developed by Edmund Locard in 1929), which states that; 'when two different materials come into contact there is always the transfer of material from one object to the other.

The transfer may be short lived or beyond detection but, nevertheless, has taken place'. Geology continued throughout the 1900s to be used in crime investigations notably by the 'Berkeley Scientists (1914-1940),

Working Group on Forensic Geology and the FBI (since about 1935) the U.S. Drug Enforcement Agency and others have worked in this area. Murray and Tedrow published the first text book on Forensic Geology in 1975.

By the millennium there were a number of geologists working with the police around the world, but they tended to work in relative isolation from other geologists. In 1994, Donnelly began to apply conventional mineral exploration and geotechnical ground investigation methods to search the ground for a murder victim's grave (ongoing). In 2002, he was invited to Westminster Palace, House of Commons, in London to give a presentation on how geology may be used by the police to investigate and solve crime. This helped raise awareness of the value of Forensic Geology to policing. This was followed in 2004, by Geological

Society of London's first 'Forensic Geoscience' conference. In 2006, the Geological Society of London Forensic Geoscience Group was established. In 2009, IUGS-GEM set up a Working Group on Forensic Geology (WGFG).

GEMS Involvement

Prior to GEMs involvement, the Geological Society of America and the Geological Society of London had been making some progress developing Forensic Geology. However, there was still no formal organisation to represent the global interests of Forensic Geologists. Therefore, some of the main benefits which this GEM Working Group has brought to Forensic Geology are as follows:

- Provided an international 'home' and a 'base' for Forensic Geologists.
- United those geologists around the world that currently work with the police/law enforcement or who potentially have the desires, methods and instrumentation that could be potentially applicable to policing and broader aspects of law enforcement.
- Provided an appropriate, professional forum and mechanisms to develop Forensic geology. This has enabled the mutual exchange of ideas and the promotion of discussions and debates. The Working Group has also provided advice to operationally based forensic geologists engaged on active cases.
- Drawn attention to selected cases where geologists that have brought significant benefits to criminal investigations.
- Encouraged and supported publications in Forensic Geology in learned journals, conference proceedings geological and police magazines, and in the media.
- Supported and organised international conferences, workshops, lectures and seminars.
- Law enforcement officers may not necessarily be aware of the potential roles of Forensic Geologists. The Working Group has provided this opportunity for collaboration since the police may not necessarily know 'where to go, who to contact, and what questions to ask'.
- This Working Group has established the Geoforensic International Network (GIN) as part of WGFG. Its aim is to promote and develop Forensic Geology on a global scale. This network includes many of the world's leading Forensic Geologists, including practitioners, consultants; those based in academia, selected police officers and associated related specialists (e.g. archaeologists, anthropologists, ecologists, soil scientists, chemists, fraud specialists, mycologists, and palynologists).

Future Potential

One of the objectives of this Working Group is to produce document called 'A Guide to Forensic Geology'. The objective of 'this guide' is to develop Forensic Geology internationally and promote its applications. This guide is therefore strongly aligned with the mission of the IUGS to promote earth science "geostandards". This will be written and endorsed by geologists, police officers and associated forensic geoscientists who are actively engaged in research and operational cases throughout the world. This 'guide' is aimed at providing information on certain 'best practices' rather than 'protocols' as these latter differ around the world. However, it is envisaged that this document will be of value to those currently working within the field of Forensic Geology and to those who may be considering working within or in association with Forensic Geologists (e.g. other geologists, police officers, barristers, lawyers, judges, military personnel, insurers, mining engineers, geotechnical engineers, environmental scientists and forensic scientists).

Since Forensic Geology is multi-disciplinary there exists the potential for collaboration and cross-fertilisation with the various IUGS Commissions, other GeoUnions and other specialist geological, forensic and associated scientific groups, organisations and affiliations.

Some conventional and innovative methods and techniques in Forensic Geology have the potential to become used by police forces and law enforcement agencies throughout the world but have not previously been considered due to a lack of opportunity. IUGS has the potential to provide those opportunities.

Benefits to Geoscience

Forensic Geology is seen by many as a 'hot new subject' (even though it has been practiced since the

middle part of the 1800s). Increased coverage in recent years of both 'geology' and 'forensics science' in TV, Film documentaries and by the media has probably helped to raise this positive image. Forensic Geology may bring the following benefits to geoscience:

- Forensic Geology appeals to a broad spectrum geologists from the next generation of geology students to those actively engaged within the profession. Forensic Geology therefore brings a positive and high-profile public image to geoscience.
- Forensic Geology also increases the scope and diversity of geosciences by allowing the application of geoscientific methods and techniques into new and high profile areas normally considered to rest beyond conventional geoscience.
- There may be cross fertilisation of related groups and meetings with multidisciplinary groups that may have interests in forensic science, policing and geology.
- Forensic Geologists involved in law enforcement must understand the respective scientific roles and be integrated into a framework, which will allow an understanding of the multi-disciplinary nature of forensic investigations as well as operate in the judicial environment of a police operation; this requires training, which the geoscientific organisations may provide. Similarly, criminal investigations, especially murder inquiries, are often extremely sensitive. Forensic geologists need to be familiar with the strict police protocols for their investigation and the presentation and integrity of evidence at murder and other crime scenes. This suggests that the need for formal training courses continuation of professional development (CPD) in geosciences. Potential training courses may include for example; (a) improving methods of communication between geoscientists and law enforcement officers, (b) formal training and education in forensic geoscience and in particular sample collection, giving evidence in court, and the design and delivery of a search strategy and methodology for buried or concealed graves and other objects, (c) the development of new laboratory and search techniques and their acceptance by law enforcement and courts.
- Given the increase in academia and practising 'Forensic Geologists' regulation and accreditation of forensic geoscientists is extremely important if professional standards are to be maintained. WGFG is already in discussions with the UK Forensics Science Regulator and the UK Home Office with regard to developing these aspects of Forensic Geology.

Benefits to IUGS

Currently, apart from IUGS-GEM, no formal organisation exists in the world today to represent the interests of Forensic Geologists. Forensic Geology may therefore bring the following benefits to IUGS:

- Increase the diversity and scope of IUGS by introducing 'forensics science' and 'forensic geology' into the organisation and scientific repertoire.
- Help maintain the high-profile status of IUGS since Forensic Geology investigations may often be associated with high profile national and international criminal investigations (improved positive visibility).
- Expansion of the potential client base and stake-holders by introducing organizations and individuals who otherwise would not engage with IUGS, such as police officers and forensic scientists (expanded network).
- Provide a formal link between geology, forensic science and the police/law enforcement.
- IUGS would gain recognition as the first international scientific organization responsible for promoting and developing Forensic Geology on a global scale.
- The association of IUGS with Forensic Geology will provide the international credibility which Forensic Geology now requires so that government organizations, police forces and law enforcement agencies can begin to adopt and formalise Forensic Geology as part of their routine or specialist investigations (Union credibility).
- Many of the world's leading practitioners and geoforensic specialists are affiliated to IUGS-GEM, including those who work in universities, consultancies and the police. Association with IUGS-GEM will provide access to a range of experts with the potential for future collaboration.
- Provide an appropriate forum for the exchange, for international linkage and ideas, and to promote discussions and debate in Forensic Geology amongst sister disciplines (GeoUnions).
- Geologists are not routinely used by the police force, yet it is clear that certain types of investigations

could benefit from their expertise, if the police 'knew where to go and who to contact', IUGS may provide this?

- IUGS has the potential to be associated with international conferences, books, papers and other publications in geology, forensic science and policing/law enforcement.

An annual budget of US\$15,000 is requested to allow the INITIATIVE to develop to its full potential "much like the effort on Medical Geology success story in IUGS".

The EC AGREED to have a new IUGS Initiative on Forensic Geology.

5.b.2. History of Geological Sciences (INHIGEO) - Alberto Riccardi

INHIGEO, established by the IUGS and affiliated with the International Union on the History and Philosophy of Science (IUHPS) has 237 members from 47 countries.

Publication productivity in 2010 remained high with the Special INHIGEO volume "De Re Metallica 13(1)" that was issued for the INHIGEO conference held in Madrid-Almaden, Spain in July, and a volume of expanded conference papers is currently in preparation for publication by the Geological Survey of Spain. INHIGEO member's have also contributed to Episodes, and the INHIGEO Vice President! Oceania is a member of Episodes Editorial Board. INHIGEO has gained renewed mandate from Episodes to prepare contributions and historical! reviews of past International Geological Congresses.

The annual INHIGEO Newsletter has continued for 2010 as a substantial publication with 118 pages, including reports on historical research in 28 countries, and was also circulated in pdf format as well as in hard copy. Japanese INHIGEO members also produce their own separate newsletter.

The annual INHIGEO conference for 2010 was held in Almaden, Canada, focusing on history of research and exploitation of metallic ores, energy resources, non-metallic and industrial minerals, ground water and mineral exploration techniques.

For 2011 INHIGEO is organizing Symposium 36 in Toyohashi, Japan (2-10 August) with sessions dedicated to "History of Geological maps and Related Geological Images in the World" and "History of Seismology, Volcanology and Geotectonics". For 2012 INHIGEO is preparing Symposium 37 in coordination with the 34 IGC. A Symposium 38 will be held in Manchester, UK. Draft Symposia topic is "Geology in Art and Literature".

For 2010 INHIGEO's expenses were \$ 7,821, and it received \$ 4500 from IUGS. For 2010 there is a request that the same annual grant be maintained.

Recommendation: This active and productive commission should be supported.

The report is accepted. Funding will be discussed later in meeting.

It is mentioned that Professor Pinto, former Chair of INHIGEO has recently passed away. Abera Mogessie suggested the possibility of publishing a note in Episodes.

The Committee ACCEPTED the INHIGEO's report and AGREED on the following action:

ACTION ITEM #6: President Alberto RICCARDI to publish an acknowledgement about Professor Pinto in relation to INHIGEO for Episodes.

5.b.3. International Commission on Stratigraphy (ICS) - (Finney / Tandon)

Prague 2010 - ICS Workshop held 30 May to 3 June was a major event for ICS in 2010. This workshop allowed chairs of ICS subcommissions, the ICS executive, and additional members of ICS

subcommissions to spend five days in extended discussions regarding the mission and objectives of ICS as well as ICS statutes, policies, and procedures. Most importantly, characterization and correlation of GSSPs, GSSP proposals, success and shortcomings of the GSSP process were discussed at length in order that all subcommission chairs understand the essential elements of GSSP definitions and selection. At the workshop, several long-standing issues were discussed and subject to informal vote, followed by a postal ballot. As a result, ICS approved 1) a recommendation on the use of formal abbreviations for both specific calibrated ages as well as durations of geologic time as proposed by the joint IUGS-IUPAC task group, a recommendation forwarded to the IUGS EC; 2) a decision to maintain the dual system of stratigraphic nomenclature (chronostratigraphic and geochronologic units for time-rock and time concepts, respectively; 3) a decision to revise the International Stratigraphic Guide such that chronostratigraphic nomenclature will be restricted to stratified rocks and that geochronologic nomenclature will be applied to both stratified and non-stratified rocks; 4) a decision that the term Stage be used exclusively as a chronostratigraphic unit and that the term Age will be retained for the equivalent geochronologic unit; 5) and decisions that ICS voting should be carried out, normally, through e-mail ballots and completed within 30 days.

Other items mentioned were:

- Ratification by the IUGS EC of the GSSP proposal for the base of the Hettangian Stage (Triassic-Jurassic boundary).
- Approval by ICS of the GSSP for the base of the Lutetian Stage (Eocene Series) and forward of the recommendation to the IUGS EC for ratification.
- Ratification by the IUGS EC of the GSSP for the base of the Lutetian Stage (Eocene Series) and forward of the recommendation to the IUGS EC for ratification.
- Approval by the Subcommission on Cretaceous System of the GSSP proposal for the base of the Santonian Stage and its consideration by ICS (vote in progress).
- Approval by the Subcommission on the Cambrian System of the GSSP proposal and name of the Jiangshanian Stage and its consideration by ICS (vote in progress).
- ICS Chair presented the ICS position on the validity of GSSPs as global standards and the history and justification of the ICS decision on formal definition of the Quaternary System/Period and redefinition of the Pleistocene Series/Epoch at meetings of the Italian Geological Survey, the INQUA executive committee, the North American Commission on Stratigraphic Nomenclature, the Geological Society of America, the IUGS Commission on Geoscience Information, and the 4th (French) Congress on Stratigraphy.
- The ICS Chair participated in an exceptional dedication ceremony of the GSSPs for the Selandian and Thanetian stages at Zumaia, Spain.

The Committee ACCEPTED the report of the International Commission on Stratigraphy

5.b.4. Education, Training and Technology Transfer (COGE) - Martínez Frías/Christine Hill

Member activities in 2010 consisted of involvement and support of the IGEO GeoSciEdVI conference in Johannesburg, South Africa and the 4th International Earth Science Olympiad in Indonesia. Previous support to the IGEO was an initiative to gather data from various countries on geoscience education. The Commission was informed on UNESCO involvement in the African Earth Science Education Initiative.

The Commission agreed:

- A. To support and strengthen the main objectives of the Commission:
 - 1) Identify gaps in education, training and technology transfer conceptually and geographically.
 - 2) With relevant bodies in or outside IUGS, develop strategies for the coordination of existing and the development of new programmes in geoscience education, training and technology transfer based on identified gaps.
 - 3) Produce a 5-year Action Plan together with an annual plan of action including budget.
 - 4) Organise meetings, conferences and workshops for geoscience educators and to disseminate information on new trends and topics in the field of geosciences.

- 5) Develop specific programmes on the continuation and coordination of training courses.
 - 6) Encourage publications of handbooks or textbooks at an international level to help bridge recognised gaps in the training of and education for geoscientists.
 - 7) Facilitate the harmonisation of geoscience presentation with different cultures in order to enhance the development of ethics in geoscience education.
 - 8) Assist in distribution of geoscience teaching materials, books, videos, equipment, etc.
- B. Examine their own interests and redefine goals, emphasizing the significance of involvement of Geosciences-related companies in the framework of training and technology transfer issues.
- C. Establish new collaborations between COGE and the Association of Geoscientists for International Development (AGID) and the International Center for Training and Exchanges in the Geosciences (CIFEG), in the context of existing and possible joint activities of IUGS and UNESCO. An active relationship with AGID is in progress on Geoethics, which will be represented at IGC, Brisbane.
- D. Update the content of the COGE website with change in design.:
http://www.geood.com.au/IUGS_COGE/index.html
- E. It was agreed to hold a COGE meeting at IGC in Brisbane.

There was no request for IUGS funding for 2011 (or in 2010.)

Reviewer Observations: The Commission reported on similar activities from 2009, mainly promotion and involvement in IGEO GeoSciEd conferences and International Earth Science Olympiad. In view of the request from the IUGS President in 2010 to examine Commission goals and those are similar to the IGEO goals. Request information on progress with an updated Action Plan (2005-2009) and an annual work plan regarding core objective progress, and future support/involvement in the African Earth Science Education Initiative. The 2009 and 2010 strategic information is to be posted on the Commission webpage.

The Committee ACCEPTED the COGE's report and AGREED on the following action:

ACTION ITEM #53: President Alberto RICCARDI to request a spending plan from COGE with pending approval to fund by IUGS.

5.b.5. Management and Application of Geoscience Information (CGI) - Colin Simpson

The CGI continues to be a very active and progressive commission which is rapidly expanding knowledge of standardises digital geoscience mapping technology around the world which is very commendable. The CGI Annual Report for 2011 made no mention of IUGS funding. I contacted the CGI Chairperson Dr. Kristine Asch for clarification. She advised that the CGI is requesting US\$10,000 support from the IUGS.

The commission is eight years old and run by a council of global geoscientists. Currently has 243 members in 66 countries. Its objective: transfer of knowledge of GeoScience; Dissemination of good practice; Develop Standards; and to Represent IUGS.

CGI receives funding from the IUGS but no direct regular financial support from other bodies. It receives considerable indirect support in terms of staff-time and meetings and infrastructure facilities from the parent organisations of its Council members and organisations such as Commission for the Geological Map of the World (CGMW).

The BGR and the German government covered the cost of the CGI Geoscience Language workshop without requiring funds from the CGI. The hosting maintenance of the website was done by BGS which only charged a part of its cost to CGI.

The CGI council decided to fund three main activities in 2011 to maximize the outreach of the work of its working groups:

- A) an Asian Outreach workshop (estimated cost to be covered by CGI: 12.000 USD)
- B) Interoperability and GeoSciML publication (estimated cost to be covered by CGI: 12.000 USD)
- C) GIRAF 2011 - African outreach (estimated cost to be covered by CGI: 11.000 Euro)

The CGI accounts Balance at December 2010 was US\$ 43 364.83 plus Euro 1 866.00.

Comments from EC:

- Good job this year
- Include museums in CGI.
- Work with and promote geosciences through students. Ezzoura would like to work with students to connect and share information. With the workshop in Berlin – the participants have impressive technological skills. She suggests having the students to migrate into different areas and share information among commissions.
- Congratulations to CGI on work in this area. Geostandards, geoinformation, and geoeducation should be maintained forever and should continue.

The Committee ACCEPTED the CGI's report

5.b.6. Tectonics and Structural Geology (TecTask) – Passchier/Charvet

The highlight of 2010 was the elevation of TecTask to an IUGS commission on Structural Geology and Tectonics

Main achievements in 2010 include the following:

- Extension of focus areas from Africa into Asia, with support of the formation of national groups and regional meetings.
- A major effort was focused on the Outcropedia initiative, and investment in knowledge sharing events.
- Increased numbers of registered members to more than 1200 (850 last year) and focused on activities to develop a world database on significant outcrops (Outcropedia).

The completion of the Commission board is on the way: In addition to the Executive Committee, 8 officers are appointed; 7 candidates are considered for appointment, which should be achieved in the first quarter of 2011. Two candidates for the Junior Officer position are being considered.

- The newly created Structural Geology & Tectonic Study Group of India (SGTSGI) has a field forum on Himalaya on the agenda.
- A new initiative: Glacier Watch has the aim of checking new outcrops formed by retreating glaciers, firstly in the Alps.
- After Oviedo (Spain) in 2008, TecTask is leading the preparation of a second International Meeting of Young Researchers in Structural Geology and Tectonics, taking place at the end of 2011, with 2 options: India or Greece.
- For the 34th IGC in Brisbane, Australia 3 specific sessions are proposed. TecTask provides logistic and scientific support to the organization of GSA Penrose Conference, scheduled in 2011 at Cadaqués, Spain, near the outcrops of Cap de Creus.

It is worth noting the great success of the website and the Outcropedia database, a recollection of most significant outcrops in the world. A new initiative is the development of a Geoheritage network dedicated to preservation of sites significant for structural geology; the first target is Cap de Creus.

TecTask is developing standards and databases: the Glossary of Tectonics, launched in 2006, will be transformed into a Wikipedia-like glossary of terminology; aimed to be a future major Internet project; three commission officers with significant expertise and track record in this field are appointed for that. Activities are published in the Journal of Structural Geology. Besides the Internet exposure, TecTask was presented to the Public in 3 Conferences within USA. TecTask is collaborating with several groups or

societies; as it seeks collaboration with World Heritage and GeoPark program. It should have contact with the GeoHeritage Task Group.

Two short courses were planned: one in the field, one in the lab.

2011 will be a continuation of the efforts by maintaining TecTask's Internet presence and sponsoring knowledge sharing events, such as: the Geological Conference in South Africa, a Structural Geology forum in India and a Penrose conference in Spain as well as field fori in Switzerland and elsewhere.

For the activities scheduled for 2011: website, workshops, 4 international meetings, etc., the funding request is: \$7 000 USD.

Jacques Charvet described the report as a perfect summary. The session at the next IGC is moving from Africa to Asia.

The Committee ACCEPTED the TecTask's report and AGREED on the following action:

ACTION ITEM #7: Secretariat to obtain ratification from the IUGS EC for the proposed new members to TECTASK and then obtain formal Council approval.

5.b.7. Proposals for new IUGS Commissions

5.b.7.1. Global Geoheritage Stone - Cooper

The aim of this Commission is to advance a proposal that advocates high-level international recognition of natural stone resources that have achieved widespread use in human culture through designation of a "Global Heritage Stone Resource", herein labeled GHSR.

Via such a designation this proposal seeks to gain prominence for stone varieties that have been utilised in artistic and architectural masterpieces, and/or heritage construction, as well as routine stone applications. It will also allow formal specification of geological features and terminology associated with the designated stone.

Background

The GHSR proposal was first discussed in a public forum at the 33rd International Geological Congress in Oslo in August 2008.

At the same meeting a committee to advance the GHSR proposal was formed under the auspices of "Commission C-10 Building Stones and Ornamental Rocks" of the "International Association for Engineering Geology and the Environment" (IAEG).

Subsequently posters have been presented at the "Global Stone Congress" in Alicante, Spain in March 2010 and at the IAEG conference in Auckland, New Zealand in September 2010. At these conferences it was also reviewed at IAEG C-10 Business Meetings.

Scope

The GHSR proposal addresses the cross-over realm between the geological sciences and human culture. It focuses on natural stone that has been removed, quarried or mined for use in sculpture, ornamentation, building, landscaping, decoration or similar construction/ decorative/ utilitarian applications, specifically where such a resource occupies a significant place in human history.

The proposal focuses uniquely both on the place of natural stone extraction as well as on the utilisation of the stone resources.

The GHSR proposal is not intended to supersede or conflict with any other regional, national or international standard or scheme of nomenclature or terminology that applies to natural stone or other

building material, or any manufactured product. Ideally a GHSR will complement existing standards.

Progress Achieved

- Initial public presentation of GHSR proposal and Establishment of Implementation Committee at the 33rd IGC. (August 2008).
- Initial establishment of Network Register of interested people with 18 people from 14 countries. (October 2008)

Following establishment of the proposed “International Commission for Heritage Stone Designation” as envisaged by the Draft Rules, it is anticipated that formal approval of the first GHSR nominations will take place.

Comments

Establishment of the GHSR designation is currently in the development phase.

Ongoing support from “Commission C-10 Building Stones and Ornamental Rocks” of the “International Association for Engineering Geology and the Environment” (IAEG) and the “International Union of Geological Sciences” (IUGS) is necessary and appropriate when the GHSR designation is formally established via a permanent international commission.

Articles, such as that which was published in *Episodes* in March 2010, are essential not only to promote the GHSR designation, but also to facilitate discussion and ongoing research into the creation of this new, international geological standard. *Episodes* and the new Journal *Geoheritage* offer an ideal venue to publish GHSR nominations.

Additional interested stone professionals on the GHSR network are needed especially where there is little or no current representation eg Africa and Asia.

The Committee AGREED to have a new IUGS Task Group on Global Geoheritage Stone and on the following action:

ACTION ITEM #49: President Alberto RICCARDI to inform Barry COOPER that the Building Stone proposal has been accepted as an IUGS Task Group.

5.c. TASK GROUPS

5.c.1. Global Geochemical Baselines (TGGGB) – Wesley Hill

The mission of the Task Group is to prepare a global geochemical database map to document the concentration/distribution of chemical elements and species in the Earth's near-surface environment. The database is used by environmental managers. The project is funded directly by IUGS & IAGC. Additional support is from national Geological Surveys and other institutions as in-kind and staff time support. A current high profile project is the *Geochemical Atlas of Europe*.

The main issue is lack of funding required to achieve the objectives of the project at the global scale. The geochemical baseline project in Europe has been completed with funding by the European Geological Surveys. The geochemical mapping project by the CCOP member countries has been delayed due to lack of funding by countries.

The 2011 priority will be the 2nd Arthur Darnley Symposium “*Global Geochemical Mapping: Understanding Chemical Earth*” at IGC 2012. The Task Group will also pursue opportunities within Africa and CCOP countries as funding permits. The revision of the FOREGS Geochemical Mapping Field Manual will be completed in 2011. The website is key to disseminate information. TG will continue participation in

symposia/conferences.

Financial Information and Request:

Example Costs:

EuroGeoSurveys Programme	\$45,000 US (annual)
FOREGS/EGS activities	\$10M US (past decade)
U.S. Soil Sampling	\$1M US (\$1M still to be spent)

Funding from IUGS has been \$1500 US per year 2003-2008 and \$4000 US 2009-2010. The Task Group states the current level of funding is the bare minimum to function as a viable entity within IUGS and IAGC. The IUGS *ad-hoc* review committee, led by Prof. Ryo Matsumoto recommended in their 2008 report that funding from IUGS be increased to \$5000 US per year. This review committee also recommended that IUGS provide an occasional influx of approximately \$25,000 US to hold workshops in African and Asian countries (which is a major component of their plans in 2011-2012.).

The Task Group is officially requesting from IUGS \$30,000 US for 2011.

The Committee ACCEPTED the report of the Task Group on Global Geochemical Baselines and AGREED on the following action:

ACTION ITEM #8: Councillor Wesley HILL to determine the exact structure and type of relationship that exists between the IUGS TGGGB and the new Tier 2 UNESCO Geochemical Institute in China.

5.c.2. Geoheritage - de Wever/ Bobrowsky

The Geoheritage Task Group was approved in 2010 and the proposed Chair received the information in November.

- During 2010 besides some action on Geoheritage properly, there were several actions to reinforce links to other organisation dealing with Geoheritage at international level. That is why there was participation in relation to:
 - Meeting in Agadir (Morocco, May), on palaeontology conservation.
 - Meeting in Caravaca (Spain, September) setting up a good connection with ProGEO : being the French representative I took part of the creation of SW ProGEO group. This group will meet for the 2nd time with the first assembly of Geoheritage TG, in Lille next year.
 - Meeting in Rabat (Morocco, December) on Geoheritage and education.
- New contacts for Geoheritage were established:

1- in Kenya to prospect the possibility of including geology in touristic tours of wild animal parks (Marsabit and Samburu, North Kenya) and explore the possibilities of making geological reserves (Patrick de Wever & JYves Reynaud).

2- with ICOMOS (International Council on Monuments and Sites): explaining their monuments and sites are primarily due to geology. A discovery for them. Visit in meeting and field (La Rochelle, France, JYves Reynaud)

3- with "Grands sites network, which were created in 2000 and today brings together Grands Sites that include exceptional, fragile, protected and listed cultural landscapes that are both well-known and emblematic.

For 2011 GeoHeritage requires a wide scope of interests from the geoscientific community. It must deal with research, education, outreach and history of science. Moreover, the processes differ between individuals and national cultures as well as the ability for influencing regulation (national or international laws) even if

terrenes and terrains cross national boundaries.

The IUGS GeoHeritage Task Group will have to address a number of key issues; the most pressing involves dealing with a number of different regulations which occur in different countries on the one hand, and to help other countries to develop their own regulations where none exist. This question is therefore acute both in developed and developing nations. A data base will be set up.

The Task Group will provide a much needed umbrella for coordination on Geoheritage issues included in different responsibilities in which IUGS is currently involved. There are global networks for some related concepts, such as the Global Geoparks or the World Heritage List of UNESCO. It is at work in some parts of the world, as it is case of the ProGEO network dealing with geosites, but nothing exists for the majority of unrecognized geosites around the world. The ability to address the issue remains elusive for most nations and organizations. Through the leadership of individuals and organizations with background in this particular issue, the IUGS Task Group on GeoHeritage will try to facilitate the development of national and international awareness and understanding of the underlying concepts.

Three main objectives will be addressed:

1- To develop an inventory of geoheritage sites. The large majority of these sites are isolated (a quarry, a single outcrop) and probably will never belong to any kind of geopark but they are valuable for education and for testimony of the history of the earth. Several organizations (national, disciplinary i. e. paleontologists) are working or have the will to work on them. Their list and content should be available from any computer

2- To compile the regulations on trade of ex-situ objects (fossils, mineral, meteorites) existing in different countries, which are usually difficult to obtain. The availability of this information on a website would be of a great help to geologist and other kind of people who have to deal with that matter (customs)

3- To provide a single point of reference and coordination for the current diverse and disparate activities in geoheritage being undertaken by the Union.

This first full year we will set up new activities and establish our "road book" for the future. We will therefore fix the comity, and try to find a common agreement on the priorities. This should be written during our first general meeting in October, in Lille (common meeting with the SW part of ProGEO).

The budget proposed for 2011 amounts to E 5700.-Budget

The Committee ACCEPTED the report of the Geoheritage TG

5.c.3. Proposals for new Task Groups - There are no proposals.

5.d. ADHERING ORGANIZATIONS

5.d.1. Application for Membership.

There are no new applications.

5.d.2. Reports of Adhering Organizations

1. Argentina – Riccardi

The IUGS National Committee is the Executive Board of the Argentinean Geological Society, which consists of 12 members. During 2010 the Committee had ten meetings.

Main activities in the year 2010 were: 1) updating of the website, 2) Creation and uploading of information in a facebook and twitter site; 3) Diffusion of Geological Topics through public conferences, 4) Lecture on a pioneer of Argentinean geology in a public seminar organized by the Government of the City of Buenos Aires, 5) Lecture in the National University of Córdoba, about the role of geologist in XXI century, 6) short course on Earthquakes and volcanism (Epuen, following earthquake of 27/2/2010) required by local, regional and provincial governments; 7) Lecture on Shale Gas; 8) Several postgraduate courses, 9) publication of symposia of the last Argentinean Geological Congress and 4 issues of the journal of the Argentinean Geological Society; 10) Initiate talks with the Argentinean Geological Survey and other stakeholders in order to organize an Argentinean National Committee for Geoparks.

During 2011 the Argentinean Geological Congress will be held which is sponsored by the NC.

The Committee ACCEPTED the report of Argentina NC

2. Australia – Bobrowsky

The National Committee for Earth Sciences under the Australian Academy of Science is the adhering body for both IUGS and IUGG. Committee has 9 members from universities, research centres and Geoscience Australia. Chair is Prof. Brian Kennett, Committee met once after the Australian Earth Sciences Convention (where they followed the themes of the IYPE) but maintains business through email. Committee influenced the teaching curricula/syllabus for those in year 11 and 12. Australia will host the 25th IUGG General Assembly of IUGG in 2011 and the 34th IGC in 2012. Three individuals have contributed directly to the IUGS (Colin Simpson IUGS EC; Marita Bradshaw IUGS Nominating Committee and David Oldroyd INHIGEO).

The Committee ACCEPTED the report of Australia NC

3. Belgium – Bobrowsky

The adhering body is the National Committee for Geological Sciences which is a subcommittee under the Academy of Sciences; Committee has 16 members and held a total of three meetings in 2010. This committee coordinates a variety of geological activities between academic and scientific institutions through such commissions as their National Commission on Stratigraphy and working groups including one on Structural Geology. The committee is responsible with communication with the general public and dealing with the IGCP program. Past major activity was the nodal group for IYPE. In 2010 almost half of the country was affected by flooding. Earth science literacy is an issue in Belgium and is constantly being addressed by geologists in the country,

The Committee ACCEPTED the report of Belgium NC

4. Bosnia & Herzegovina – Cavazza

The BSH Geological Society is the IUGS adhering organization. It has about 600 members from both BSH entities, i.e. Federation of Bosnia and Herzegovina and Republic of Serbia. Members are from academies, universities, research institutes, geological surveys, and the industry.

The governing body of the BSH Geological Society is the Board of Officers which doubles as BSH IUGS National Committee. The National Committee consists of five members as Administrative Board with President and two vice-presidents which are rotated every eight months (Bosnia, Croat, Serb), Secretary General and Technical-Administrative Secretary. Also, there is Supervisory Board (three elected members) and Treasurer. The National Committee leads and coordinates the activities of the Society and communicates with domestic institutions and public, as well as, with international geoscience community.

Budget for 2009 was 2000 EUR donated by the Ministry of Public Society plus membership duties, eventual

donations, participations and contribution to certain projects. The BSH Geological Society "expect(s) the understanding and support from IUGS Community and other National Committees".

The Committee ACCEPTED the report of Bosnia & Herzegovina NC

5. Bulgaria Bobrowsky

National Committee of Geology is the Adhering Body under the auspices of the Science Council/Academy. New committee members elected in June 2009 comprises 15 individuals, 8 of which are ex-officio. President is Prof. (van Zagorchev, Geological Institute in the Bulgarian Academy of Sciences. One meeting is held per year. Financial difficulties so that the membership fee to IUGS cannot be paid. There are plans to change the Bylaws of the Carpathian Balkan Geological Association. Significant activity was the 19th Congress in Thessaloniki, Greece. The funding situation is actual catastrophic, there is no money for basic mapping, research, etc. for the Geological Survey and others. Salaries were cut by 25 percent in 2010 and will likely be cut again in 2011.

Bulgaria is having financial difficulties however, they are scientifically active. IUGS sent a letter of support to the Bulgarian government – see report.

The Committee ACCEPTED the report of the Bulgaria NC

6. Canada – Bobrowsky

The Canadian National Committee for IUGS is a subcommittee under the Canadian Federation of Earth Sciences (which meets twice a year and holds 10 other teleconferences), the latter is an umbrella group of 13 societies, all universities and government institutions representing some 25,000 geologists. There are 6 committee members and one ex-officio member, the Chair is Dr. Bryan Schriener Saskatchewan Research Council. Membership to IUGS on behalf of CFES is paid by the National Research Council. Direct funding for IGCP was terminated in 2009 although Canadian scientists are active in IGCP. Canada was extremely active in IYPE and several legacy issues are still being supported by CFES. Financial support for the Intercontinental Drilling Program was also terminated. Canada launched the first North American committee for GeoParks and has the first accredited site in the Global Geopark Network (Stonehammer).

The Committee ACCEPTED the report of Canada NC

7. China – Tandon

The Geological Society of China organised 46 meetings/seminars in many areas of geosciences including those in the areas of mineral exploration, energy and mineral resources, hydrogeology, environmental and engineering geology. Meetings were also held for the promotion of emerging geoscience disciplines such as Earthscience and Geopark construction. The 41 st World Earth Day was well publicised and half a million people across the country participated in the activities that were centered around the theme "Cherish the earth resources, transform the mode of development and advocacy of low- carbon lifestyle". The 2010 National Teenager Geological summer camp was held in Chifeng, Inner Mongolia during 10-14, August, 2010, and was attended by 220 participants that included students, teachers, and workers. This camp was favored by young students. Other activities of the GSC in 2010 included the sponsorship of the first National Undergraduate Geological Skill test. Besides these activities, the GSC has been involved in journal publishing, making TV serials on early geological explorers and recognition of high achievers through the "DoubleTen Achievements."

China is one of the most active countries in geological sciences. Their progress in GEOPARKS far exceeds other countries. China promotes many things in the geological science field. China is one of the most active countries in regards to IUGS. Tandon will express this sentiment in a formal letter.

The Committee ACCEPTED the report of China NC

8. Costa Rica – Bobrowsky

The adhering body is the Colegio de Geólogos de Costa Rica (CGCR) which is an independent entity. Committee comprises 4 individuals and meets once per year. They realize they have to improve their visibility within IUGS and are trying to promote the IUGS mission. CGCR was active in the 10th Geological Congress of Central America held in Guatemala last November. The country has experienced earthquakes, landslides and volcanic unrest in the last few years. CGCR cooperates with the Bureau of Geology and Mines, Central American School of Geology and others. Since 1984 they have published the open access Journal Geological Journal of Central America. Scientists were very active in IYPE, are still active in INHIGEO, ILP and CGMW. Only 1 person participated in the 33rd IGC.

Peter Bobrowsky reported that the Costa Rican group is small but interesting. They want to promote IUGS visibility within Costa Rica. The group is aware of multi-activities within IUGS. This is a good group. Alberto commented that the group is very active. He met the Director of the Geological Survey at the Lisbon event and they promote INHIGEO.

The Committee ACCEPTED the report of the Costa Rica NC

9. Cyprus – Bobrowsky

Adhering body is the Geological Survey Department of Cyprus under the Ministry of Agriculture Natural Resources. Committee comprises 5 to 7 people with the GSD Director as President. Main issues in 2010 was abandoned mine restoration, water resources and natural resources. Past accomplishment was an active contribution to IYPE (Lisbon and national stamp). Major activities include EuroGeoSurveys, Terrafirma project, work with GFZ and others. Landslide mapping in 2010 was the only hazard related activity.

The Committee ACCEPTED the report of Cyprus NC

10. Czech Republic – Riccardi

The IUGS National Committee is the Czech National Geological Committee (CNGC) and includes 10 members. The Chairman is from the Czech Geological Survey and the Secretary from the Geological Institute of the Czech Academy of Science. During 2010 the Committee had one meeting.

The main activities in relation to IUGS and UNESCO were participation in the IYPE meeting during the EGU conference in Vienna, distribution of IUGS e-Newsletter and of the IUGS essay contest "Future of the Geosciences" to the Czech scientific community.

Other activity related to IYPE was the participation of the travelling exhibition "The Planet Earth Powerful and Vulnerable" in two geoscientific exhibitions. The painting exhibition "Gaia, my piece of land" continued by its fourth repetition and the final award ceremony became a flag ship of the Czech Ministry of Environment PR department.

The CNGC took an active role in a revival of the Czech Commission for Stratigraphy, and in 2010 hosted a working meeting of the Int. Stratigraphic Commission IUGS in Prague.

In 2010, the Science and Technology Week organized by the Academy of Sciences of the Czech Republic, was officially focused on the "Diversity of the Universe and Life". It included public lectures with on-line outside broadcast and subsequent media contributions partly under a direct management of the CNGC members. In addition field excursions for secondary-schools, an interactive game in the "Geologic Park", a geologic pathway in the Botanic Garden in Praha-Troja, and contacts in TV, radio, magazines and newspapers enabled the CNGC to publish numerous geoscience news and features in the form acknowledged by a broad public.

Czech geoscientists participated (4) /coordinated (1) five IGCP projects (IGCP 510, 540 555, 575, 580). Generous donations, which enabled to offer several grants in the total amount of 170 000, - CZK were kindly provided by several sponsors of the Czech IGCP National Committee in 2010.

The geopark concept became widely accepted throughout the Czech territory. Thus, the National Geopark Council organized two important meetings, one geopark in western Bohemia was accepted as the second official national GP (The Egeria GP), and several new proposals for geoparks were submitted to the council for the acceptance to the national GP family. Other regions are also starting to develop their own policy to meet with general geotouristic and management principles of the geopark concept. The Czech UNESCO category geopark Czech Paradise has proven its management and geotouristic quality and achieved the positive re-evaluation for another three years.

The Czech Geological Survey (CGS) participated in the Antarctic Programme, in projects of aid for developing countries like Costa Rica, Mongolia, Iran, Bourkina Fasso and Peru. A new project under the GEOSS framework was started by the CGS, focused above all on social consequences of mining in African and Central European countries. The CGS successfully closed its part in the "One Geology" project of the BGS in 2010.

The two major magazines - the Bulletin of Geosciences and the Journal of Geosciences substantially improved their quality and in 2010 reached an IF appreciation in the international scientific WOS system.

The Committee ACCEPTED the report of Czech Republic NC

11. Denmark – Bobrowsky

The Nationalkomiteet for Geologi under the auspices of the Science Council is the adhering body to IUGS. Committee has 5 members who meet twice a year and the main objective is outreach. A major accomplishment was the maintenance of an informative website with thematic pages on oil and gas and a number of meetings and events. Committee ensured geologists were on the boards of "parks". Here is funding in place to publish a book on geosites. There are active and completed contributions to IYPE and OneGeology. The IUGG national committee has submitted a bid to host the IUGG general assembly in 2015. About 20 people participated in the last IGC. Bobrowsky reported that the Denmark National Committee is average in size and their primary focus is outreach.

The Committee ACCEPTED the report of Denmark NC

12. Estonia -- Bobrowsky

Estonian National Committee for Geology (EstNCG) is the adhering body to IUGS and IGCP and is under the auspices of the Estonian Academy of Sciences. There are nine members on the committee representing universities, geological survey, geological society and academy of sciences. The Chair for the committee is Dimitri Kaljo. The committee normally meets twice per year but most work is done electronically. One major issue is the diminishing role and significance of the EstNCG in the country. The major output is the Estonian Journal of Earth Sciences. Major activities included the 1st workshop of the PAGES varves working group and the 5th annual meeting of the Nordic Mineralogical Network. Scientists involved in IGCP scientific panel, Dr. Peep Mannik is Vice Chair of Silurian Subcommission and other members are members of INHIGEO and ProGEO. Usually 7-8 people attend the IGC. EstNCG is pleased with current activities of the IUGS EC.

The Committee ACCEPTED the report of Estonia NC

13. Finland – Bobrowsky

The Finnish National Committee for Geology under the auspices of the Finnish Academies of Science and Letters is the Adhering body. There are 12 members from the Geological Survey (2), universities (5), societies (4) and the Academy (1). They met four times during the past year. Main issues include Day of Geology (attracted 1000 people), finishing two stratigraphical guidelines (Precambrian and Quaternary) and stabilizing their web based geo portal. On a monthly basis their are approximately 7,000 hits to their website. They were active in IYPE, INQUA, SCAR, and ILP. Some 2 to 3 people attend the IGC.

The Committee ACCEPTED the report of Finland NC

14 France – Charvet

The French National Committee of Geology includes 120 members. Two General Assemblies were held in 2010: The Ordinary one, on May 20; An Extraordinary one on June 9, with in the agenda the vote for dissolution of the CNFG and merging with the Société Géologique de France. The Bureau met on two occasions.

The IUGS and CNFG also met twice in February: during the EC meeting (CNFG observer) and during a dinner. The CNFG sponsored the two-day excursion of IUGS EC in Paris Basin.

The CNFG delivered exceptionally two PhD awards. The president and secretary general attended the General Assembly of the French Committee of International Scientific Unions (COFUSI, Academy of Sciences - French representative of ICSU on January 12th, 2010. The new board of the COFUSI has been presented to the French committees.

CNFG participated in the Board of the "French Federation of Geology" (FFG) of which he is a founding member.

The main event consisted of the following activities:

- Approaches and discussions between the three French geological societies have been successful as were the Extraordinary General Assemblies in favor of the merger of the three societies. The name of the new association is "Société Géologique de France" (French Geological Society). The statutes are now written; they are based on those of the Geological Society of France modified to integrate the objectives of UFG and CNFG, notably for all dealing with trades of the professional geologists and the international actions.
- An agreement has been found for the treaty of merging of the three associations.
- Among the main points, it is worth noting that the property of the CNFG will be gathered in the "Fond Aubouin-Sangnier" and will be devoted to both the activities of the National Committee and the international actions of the society.

Charvet asked if an organization has to re-apply for application to the IUGS when there are organizational changes.

The Committee ACCEPTED the report of France NC

15. Germany – Tandon

A joint meeting of the National Committee with the German National Board for IGCP took place in November, 2010. The NC supports the efforts to increase the attention to geosciences topics both in political and public spheres. The NC has made special mention of the efforts of the German Stratigraphic Commission to prepare a number of regional stratigraphic monographs.

The Committee ACCEPTED the report of Germany NC

16. Iraq – Errami

The main scientific activities focused on the following:

1. Discussion of the regulations of the High Education and Scientific Research Ministry about the foundation and construction of civil universities and colleges for different specializations in the central plan of colleges and universities plan. A contract will be established to build these facilities and to ensure that it will be financially beneficial to the Geologists Union.
2. Accepted an invitation from the Intenation Institute for Applied Science in Iraq, this will be held in the Iraqui Airways building in the trade tower.
3. Prepare a primary study about the projects fulfilled on the consultant bureau of our union to pass to the higher levels.
4. Discussion on the international conference on remote sensing in Tunis.
5. Discussion on the International 10th Congress of Jordanian Geology.
6. Discussion on international 7th Congress of the Geology of the Middle East in the Jordanian University.
7. Joined the Conference on Gas and Oil which was held at the Baghdad University from 23-24/4/2010.
8. Participated in the Conference of Quarries which was held at the Baghdad University from 3-4/5/2011.

Professional activities focused onthe following:

1. Supported the Foundation of New Branch in the Kirkuk City Province.
2. Received an invitation of the delegations coming from Iraq counties to collaborate on how to accelerate the union work in their respective countries.
3. Supervised the democratic election of Ninavah City Branch of the Union.
4. Supervised the democratic election of Tikrit City Branch of the Union.
5. Fulfilled the agreement of the Union Committee to attend the IUGS Congress celebrating the 50th Anniversary of the IUGS in Paris, France in February 2011.

The Committee ACCEPTED the report of Iraq NC

17. Italy – Cavazza

The report which consists of a summary report of the IGCP Italian National Committee, the ongoing and the new IGCP projects and a summary report of the IUGS Italian National Committee.

In 2010, Italian geoscientists leaded four IGCP projects (Projects N°526, 540, 543, 565) and participated actively in at least seven other IGCP projects. The report provided a list of the new IGCP projects which started in 2010, the complete list of 31 IGCP projects active in 2010 with contact addresses of leaders and Italian coordinators and a list of the ICGP project proposals received in 2010. The report provided also a summary of the minutes draft of the 38th session of the IGCP Scientific Board held at UNESCO Headquarters (Paris, France) from the 17th to 19th February 2010

The IUGS Italian National Committee represented by the "Commissione CNR-IUGS" was set up by the National Research Council of Italy (CNR) in 2001 which is the Italian National Agency representing Italy within the IUGS since its foundation. The committee consists of 11 members. The renovation of the IUGS Italian National Committee is under discussion within CNR, so no meeting was held during the year.

The Committee ACCEPTED the report of Italy NC

18. Japan – Hongren

In Japan, 2010 was a year of very busy activities of geological sciences. San'in Kaigan Geopark has been authorized as Global Geopark in October. There are large numbers of geo-scientific conferences, symposiums, lectures held in Japan.

Major activities in 2010 were:

- January 17-21, Hokudan International Symposium on Active Faulting held at Hokudan
- January 22, Symposium on Re-definition of Quaternary System and the Pleistocene Series held under the auspices of the Japanese National Committees for IUGS and for INQUA, Science Council

of Japan, Tokyo.

- October 14, Symposium on Progress in 3D geological modelling promoted by the Japan Society of Geoinformatics.
- November 15-17, International Symposium on Methane Hydrate Resources-from Mallik to Nankai Trough, promoted by JOGMEC, held at National Olympics Memorial Youth Centre, Yoyogi, Tokyo.
- November 16, Symposium on Geological Maps, promoted by Geological Survey of Japan, held at Akihabara Convention Hall, Tokyo.
- November 20-21, Symposium on Structural Growth of the Kanto Tectonic Basin, promoted by the Geological Society of Japan and the Japan Association for Quaternary Research, at Nihon University in Setagaya, Tokyo.
- Suggestions for improvement of IUGS activities: IYPE was successful as an outreach event but the scientific impact was limited. IUGS is strongly expected to take an initiative from the international scientific cooperation to send clear message concerning the current environmental issues, resource problems in terms of sustainability, at any social and political occasions.

The Committee ACCEPTED the report of Japan NC

19. Lithuania – Simpson

Colin SIMPSON reported that the IUGS National Committee is the Lithuanian National Committee of Geologists (LNCG) which is composed of 12 members and the past-Chairman. During 2010 the Committee had two meetings. The major issues of the current committee include presentation of information for the media, general public, and in schools on geology, hazards, and IUGS activities. An LNCG member was a member of the Board of the Lithuanian National Committee for the IYPE and also participated as the national representative for IUGS in Vienna. A major achievement during 2010 was the compilation and publication of the Petroleum Geological Atlas of the Southern Permian Basin Area (SPBA) of Lithuania. This was a joint project of the Geological Surveys of Belgium, Denmark, Germany, the Netherlands, Poland and the United Kingdom. The aim of the Atlas was to present a comprehensive and systematic overview of the results of over 150 years of petroleum exploration and research in the SPBA. Lithuanian geoscientists continued their activities in IUGS commissions and programs, IGCP projects and INQUA commissions. They participated in 7th Annual Meeting of IUGS-GEM; in the OneGeology project by providing the digital data of the geological map of Lithuania, and providing the vocabulary with Lithuanian translations. They are also involved in providing data for the eContentPlus project OneGeology-Europe, an offshoot of the global OneGeology initiative and involves a consortium of European geological surveys and representatives from the user community. They contributed information to the new online book "One Europe One Geology - Applying Geoscience for Society" a product of OneGeology-Europe. Other activities included: presentations at the European Geosciences Union (EGU) General Assembly in Austria; presentation of the major results of the GASH (Shale gas in Europe) project in the International Conference Baltic-Petrol 2010 in Poland; involvement in the 53rd Scientific Conference for Young Students of Physics and Natural Sciences, in Lithuania; participation in the Short Course on Microstructure 2010: Microstructures and Physico-Chemical Properties of Earth and Planetary Materials, Italy; and the 29th Nordic Geological Winter Meeting, Oslo.

The Committee ACCEPTED the report of Lithuania NC

20. Mongolia – Gerel

Mongolian Geological Society (MGS) held business meetings every two months and continued cooperation with the Geological Society of Japan, and Russian Geological Association. Members of Executive Committee were invited by Geological Society of Japan. Preparing schoolchildren to attend the International Olympiad in Tomsk organized by Russian Geological Association. MGS co-sponsored number of meetings: Geological Education-50, Discover Mongolia 2010, Round-up, and Workshop on CIDA project SGA sponsored reconstruction of Museum of Geology and Mineral Resources. MGS initiated discussion of International stratigraphic chart together with Mongolian Stratigraphic Commission. Members of MGS participated in IGCP 503, 507 and 516 projects, One Geology project, edited long-term project "Geomap-200. Series of lectures for industrial geologists and mining companies done by members of MGS, MGS participated in discussion of "Mongolia's Mining Law", and MGS decision was submitted to Ministry of Mining and Energy. MGS is an active member of Mongolian Geology and Mining. MGS published Journal "Mongolian Geoscientist". MGS together with "Zorig Fund" sponsored 50 university students scholarship.

The Committee ACCEPTED the report of Mongolia NC

21. Russia – Riccardi

The IUGS National Committee is the Russian National Committee of Geologists (Russian NCG), who works under the aegis of the Russian Academy of Sciences and includes thirty members from the Russian Academy of Sciences and industrial and educational organizations. During 2010 the Committee had four meetings.

Main activities of the Russian NCG were focused as usual on major policy and operational issues pertinent to IUGS bodies and affiliated organizations.

Thus members of the Russian NCG participated in activities of the IUGS Commission on Geoscience for Environmental Management (GEM), INHIGEO, and the International Commission on Stratigraphy (ICS). With regard to IUGS affiliate organizations, members of the Russian NCG were involved in activities carried out by the International Association of Hydrogeologists (IAH), the International Association of Engineering Geology and the Environment (IAEG), the International Mineralogical association (IMA), the Commission for the Geological Map of the World (CGMW), the International Association on the Genesis of Ore Deposits (IAGOD), and the International Federation of Palynological Societies.

Russia was very active in relation to the history of Geological Sciences, publishing four volumes of the International magazine "History of Earth Sciences", working in a project of the Russian Academy of Sciences entitled "Virtual Library Scientific Heritage of Russia", and participating in national and international conferences. In relation to ICS Russian geologists have been active in the Subcommissions on Ordovician (work on national and regional schemes), Triassic (Induan-Olenekian boundary), Jurassic (Hettangian, Kimmeridgian, Jurassic-Cretaceous boundaries), Paleogene. (two national conferences), and Neogene Stratigraphy. In addition Russian representatives have also participated in ICS discussions on different stratigraphic problems, such as development of national stratigraphic codes, reconstruction of the International Stratigraphic scale, compilation of regional stratigraphic scales of new generation, assessment of modern techniques to work up stratigraphic schemes, temporal and spatial correlations of different geological events, reconstruction of paleogeographic setting, etc.

Russia was especially active in relation to the IAH, where one Russian became Vice President, organizing and participating in several conferences and initiatives related to groundwater. The Russian group of IAEG organized a conference (Moscow, March) and is preparing the International Conference "Environmental Geosciences and Engineering Survey for Territory Protection and Population Safety" to be held in Moscow on September 6-8, 2011. Members of the Russian Mineralogical Society participated in IMA and in the celebration of its 20th Anniversary General Meeting. Russian geologists lead 3 subcommissions of the CGMW (Northern Russia, Antarctica, Tectonic maps), which are actively preparing a number of maps. In relation to IAGOD 47 Russian geologists from 17 institutes participated in the XIII IAGOD Symposium held in Adelaide, and two international conferences were organized in Novosibirsk. The Russian Palynological Commission is active in relation to IFPS work. It published an electronic newsletter and has organized and participated in several national and international conferences.

In addition members of the Russian NCG were active in INQUA's commissions, subcommissions, and committees, attending conferences in Russia, France and Japan.

An especial item of the report is the promotion of Geoparks in Russia. Thus far there are no Geoparks but the Ministry of Natural Resources and Ecology of the Russian Federation has been approached to establish Geoparks in at least 8 areas (Murmansk, Sverdlovsk, Krasnodar, Irkutsk, Kamchatka, Krasnoyarsk, Tatarstan, and the Northern Caucasus).

Based in part of the information received from IUGS and its bodies the Committee has compiled an information Bulletin, which was circulated among c. 100 academic, industrial, geoscientific institutions and universities throughout Russia.

It is expected that 500 Russian geologists will attend the next IGC. In spite of a difficult financial situation, the Russian NCG has managed to arrange the 2008 EPISODES subscription (57 copies) for individuals and organizations (all free of charge).

The inability of the Russian Academy of Sciences to pay in time the annual membership dues to IUGS and its Affiliates considerably influenced the Committee's activity. Although this year due to the Russian NCG efforts the Russian Academy of Sciences has transferred its fees to the International Union of Geological Sciences, the Commission for the Geological Map of the World, the International Union for Quaternary Research.

The Committee ACCEPTED the report of Russia NC

22. Slovakia – Errammi

Slovakia is represented within IUGS through the National Geological Committee of Slovakia “NGCS” which is working under the umbrella of the Science Council. The composition of the NGCS executive board is given in the annual report which I find a very important step to strengthen the communication with the IUGS adhering bodies. During 2010, two meetings were held but no report is provided.

The national Geological Committee of Slovakia participated in organizing international events such as the 2nd International Congress of Applied Geology (Iran), the international meeting 8th Central European Tectonic Studies Group (Poland), the meeting of organizing committee of the IYPE (Vienna), the ICS Conference (Prague), the 8th International Jurassic Congress (China), the 20th general meeting of the International Mineralogical Association (Budapest), the IGCP/UNESCO Conference (Spain), the 19th congress of Carpathian-Balkan Geological Association (Thessaloniki), the workshop of the ICS Jurassic/Cretaceous Boundary Group (Paris).

In the report, they listed the most important international events organized during 2010 in Slovakia and where representatives of the Slovak Geological society or the NGCS participated. They give also a summary of the national events organized in 2010 in Slovakia (the 15th Slovak Hydrogeological Conference (Banská Štiavnica), the celebration of the 70th anniversary of Dionýz Štúr State Institute of Geology and the 9th Christmas Seminary of the Slovak Geological Society (Bratislava)).

No suggestions are given to improve the IUGS activities and no website address is provided.

The Committee ACCEPTED the report of Slovakia NC

23. Slovenia - Trajanova

A representative of Slovenia NC, Mirka Trajanova, present at the EC meeting reported on various activities developed in Slovenia by the IUGS NC.

The Committee ACCEPTED the report of Slovenia NC

24. Sweden – Gerel -

The report was submitted by the Swedish National Committee for Geology. It has 20 members and relation to Royal Academy of Science, and close co-operation with the Geological Society of Sweden and Geological Survey of Sweden. Two businesses meeting of Committee were held in 2010: February 10, and November 26, 2010. A major issue has been to introduce geology as a separate subject at school that will help to increase the number of geology students at the universities. The Committee initiated a broad debate to strengthening geology at school and in society. This discussion resulted in a strategy for future work. During 2010, the committee proposed a number of changes in the school course outlines that were to be revised. The committee suggested a specified content in Earth Science to be included in Natural Sciences courses. The Committee also made common efforts with the Committee for Science and School of the Royal Swedish Academy of Sciences with respect to the future content of the Natural Science Program at school. This theme was discussed at a conference organized in April 2010 by the Geological Society of Sweden and the Committee of the annual Day of Geology in outreach and school questions.

The November meeting included invited guests from the Swedish Environmental Protection Agency, IGCP representatives at the meeting were constructive strategic discussions on outreach activities, presentation of IGCP's work and planned activities in Sweden, works and planning of the Swedish Environmental Protection Agency. This meeting also discussed the initiative and progress by the Geological Survey to establish geoparks in Sweden. The committee strongly supports this initiative. No special website of the Committee, only short description of the activity. Established in 1871, the Geological Society of Sweden has a website regularly updated.

The Committee ACCEPTED the report of Sweden NC

25. Switzerland – Hill

The activities of the Swiss National Committee were fewer in 2010 compared to 2009 as a result of the end of IYPE and a reduction in their 2010 budget.

Summary of 2010 Committee activities:

- Provided support for the invitation of keynote speaker, Paul Hoffman University of Harvard, at the Swiss Geoscience Meeting in Fribourg.
- With an expected financial contribution in 2011, will assist in updating the Swiss Stratigraphic Committee website.
Providing partial support for the symposium in honor of Albert Matter and Daniel Bernoulli held in conjunction with the Swiss Geoscience Meeting in Zürich 2011.
- Is currently discussing the possibility of installing a central register in order to optimize use of acquired drilling project data and materials.

The Swiss National Committee has been very active in promoting and surveying IGCP projects with many national academic institutions such as: University of Neuchâtel, University of Berne, University of Lausanne, University of Geneva and University of Zürich.

The Committee ACCEPTED the report of Switzerland NC

26. Taiwan – Simpson

During 2010 the IUGS NC for Taiwan developed various activities in relation to organization/participation in a large number of national and international scientific meetings, publication of the journal Western Pacific Earth Sciences (WPES), and specifically in promoting a Law of Geology

The Committee ACCEPTED the report of Taiwan NC

27. Tajikistan – Riccardi

The IUGS National Committee is the Geology Department of the Government of Tajikistan and includes 24 members. During 2010 the Committee met once a week. Contacts with IUGS are maintained through the secretariat of IUGS and by e-mail.

Activities were focused in promoting investments. About thirty reports were reviewed and submitted to the State Commission on mineral deposits (1 on gold, 1 on iron, 1 on coal, 3 on gypsum, 1 on granite, 12 on loam, and 13 on sand-gravel).

Major meetings were: an Intergovernmental Council on prospecting, use and protection of subsoil and a Mining Forum «China Mining»;

Other activities included those of the State Institution «Centre for education, preparation and retraining of the specialists of the Head Department of Geology under the Government of Tajikistan" and the International

conference «International Decade of actions "Water for Life"»

Several agreements were signed: 1) Cooperation Agreement between the Head Department of Geology under the Government of Tajikistan and Geological services of the Mining Ministry of Iran on establishment of the Centre of New Technologies; 2) Cooperation Agreement between the Head Department of Geology under the Government of Tajikistan and the Geological Services of China on execution of works on geological survey of the near-boundary territories; 3) Memorandum of Understanding between the Head Department of Geology under the Government of Tajikistan and Geological Services of Finland on preparation phase of the project on «Development and improvement of the information systems in Geological sector of Central Asian Countries».

Five persons will be attending the IGC meeting. They are interested in obtaining information on grants available on capacity building for young scientists and modernization of equipment.

The Committee ACCEPTED the report of Tajikistan NC

28. Thailand -- Tandon

- Major issues under consideration include Geoconservation (Geoparks, Geotourism, Geodiversity)
- Technical conference on Geology and Mineral resources was held on 7-8 September 2010 at Bangkok.
- A pilot project has been launched for selecting an area of Geopark at Tarutao National Park in 2010. Subsequently the Geoconservation initiatives will be linked in with the Global Geoparks Network (GGN).

Attention is also being given to the heavy rain- triggered landslides and mudslides in Thailand's southern provinces.

The Committee ACCEPTED the report of Thailand NC

28. United States -- Hill

The U.S. National Committee for the Geological Sciences (USNC) promotes the advancement of geological sciences in the United States and globally, and effects participation by the U.S. scientific community in the activities of IUGS. The USNC serves as a focal point for U.S. discussions on how to¹ best maintain the viability and relevance of the geological sciences internationally. The committee provides guidance and input to IUGS on these issues, and plans U.S. participation in furthering the goals of IUGS. Since January 2010, the United States began hosting the IUGS Executive Secretariat hosted by the U.S. Geological Survey which is financially supported by the U.S. Government and IUGS.

There is excellent collaboration among the four (4) Earth science Union U.S. National Committees - International Union of Geodesy and Geophysics, International Union of Soil Sciences, International Union for Quaternary Research, and International Union of Geological Sciences. The four national committees have developed several activities jointly facilitated by a standing committee of the four chairs. The four national committees co-sponsored symposia at the 2009, 2010 and 2011 American Association for the Advancement of Science (AAAS) meetings - 2009 Global Sea Level Rise: Observations, Causes, and Prediction; 2010 Dust in the Earth System (which resulted in 22 articles in Spanish, German, and English published in the U.S. and abroad); and 2011 the Practice of Science Diplomacy in the Earth Sciences which intends to define the breadth of this topic, describe interactions between U.S. scientists and their counterparts abroad, and analyze experiences for a set of best practices. Scientists in the 2011 panel are from academia, government,

and non-governmental organizations. The USNC has identified three main pillars for activities in the current triennium:

- Science diplomacy through Earth Sciences
- Strategic and Critical Mineral Resources
- Earth Science Education.

Strategic and Critical Mineral Resources is an issue the committee is exploring. The USNC is exploring ways to work with The American Geological Institute (AGI) to improve both the education and placement of young geoscientists in the U.S. workforce. The USNC is currently involved in facilitating information regarding a future U.S. Geoparks program. Members of the national committee serve on the scientific review board for IGCP. In 2010, the subcommittee endorsed five (5) IGCP proposals from the U.S.

Wesley noted excellent collaboration by the US. Riccardi commented that the Science Diplomacy was a very important program. The correlation between science and diplomacy is bigger than the USNC even the U.S.State Department is using science in diplomacy. The Embassy Science Fellows Program sends Science Officers to various Embassies on a rotating schedule for a 2 – 4 month assignment.

The Committee ACCEPTED the report of USA NC and AGREED on the following action:

ACTION ITEM #38: President Alberto RICCARDI to write a letter of confirmation and response to each individual Adhering Body in response to their annual reports.

5.e. Affiliated Organizations

5.e.1. Criteria for admission- Riccardi

Alberto Riccardi discussed the definitions and guidelines which had been distributed in advance.

According to IUGS Statutes "Affiliated organizations are international, non-governmental, scientific, autonomous organizations which have obtained affiliation with the Union for the representation of scientific interests and, through the Union in the International Council for Science, for collaboration in arranging scientific meetings, and for planning and undertaking activities of mutual interest" (Definitions # h) and "Active international or multinational scientific organizations may apply for affiliated status, if they are willing to support the aims and objectives of the Union. Applications are considered by the Executive Committee. Approval of an application is subject to ratification by the Council" (Statutes # 53).

Despite these statements and due to changes produced in the World in the last decades, especially with regard to improvement in communication and related social, political and economical integration at international level, it has become difficult in some cases to determine if an organization, beyond its traditional name, can be qualified as "national", "international" or "multinational". Thus the IUGS traditionally have had affiliated organizations that have names, statutes, goals and a membership, clearly international. In the last ten years however the IUGS has incorporated and rejected as affiliated members several organizations whose "national", "international" or "multinational" character was not clearly defined and were subject to extensive discussions by the IUGS Executive Committee.

It is time therefore to clarify this important matter and to propose some guidelines which clearly state criteria both used or that could be used in the future.

A long discussion followed on guidelines. The outcome was a vote on leaving the guidelines as they are only use two requirements instead of just one. Motion to accept was made by Wesley Hill and accepted unanimously. The text reads as follows:

"Any organization applying for Affiliated status to the IUGS membership could be accepted if, totally or in one of its constituent's parts, it complies with at least two of the following requirements:

- 1) It has formal relationships (e.g., alliances, agreements, MoU's) with one or more organizations of at least another country.
- 2) It has a membership that includes individuals or organizations of at least two countries.
- 3) It develops activities (e.g., courses, research, and outreach) in at least two countries.

- 4) It is known and recognized (for instance through its publications, courses, outreach, website) by the geoscientific community beyond the boundaries of a single country.
- 5) It has a wide range or effect in its activities (for instance through its publications, courses, outreach, website) beyond a single country.
- 6) In its constitution involves more than two countries.
- 7) It has a formal representation in more than two countries.”

The Committee AGREED on the guidelines proposed to define the international character of any organization applying for IUGS affiliated membership, and on the following action:

ACTION ITEM #55: President Alberto RICCARDI to produce policy guidelines to deal with inactive Affiliated Organizations.

5.e.2. Applications for Affiliation

5.e.2.1. Canadian Federation of Earth Sciences (CFES) - Riccardi & Bobrowsky

The EC voted unanimously to make CFES an affiliate member. This is now is an Action to the Council.

The Committee AGREED in accepting the Canadian Federation of Earth Sciences as Affiliate Organization, and AGREED on the following action:

ACTION ITEM #40: Secretariat to obtain Council ratification for IUGS Affiliate Membership of the Canadian Federation of Earth Sciences.

5.e.3. Reports from Affiliated Organizations

1) Association of Applied Geochemists (AAG) – Ochir

Gerel reported that AAG provided a report and they have a good website which is up-to-date.

The Committee ACCEPTED the AAG report

2) American Association of Petroleum Geologists (AAPG) – Simpson

No report received

3) Association of African Women Geoscientists (AAWG) – Errami

Errami reported that during 2010, the number of countries represented in the AAWG increased from 26 to 32 countries including non African countries. The AAWG published the second issue of its newsletter entitled “Women & Geosciences News”.

During 2010, the AAWG organized its Fifth biannual conference entitled “Women and Geosciences for Peace” at Grand Bassam (Côte d’Ivoire). Adding to the scientific sessions, three roundtables were organized during that conference. The first roundtable entitled “*Women & Geosciences for Peace*” was ended by an appeal of Peace which was read during the official opening ceremony of the conference and was communicated to the president of Côte d’Ivoire. The second roundtable entitled “*Geosciences, education and employment*” was ended by the creation of a task group on geo-education in Africa. The third roundtable entitled “Geological patrimony and geotourism” during which the decision to make the Fresco Escarpment the first geopark in Côte d’Ivoire was taken and endorsed by the government of the country. The post conference field trip was attended by 110 participants most of them were young earth scientists who were totally sponsored. The visited geological sites were the sedimentary Fresco escarpment of Maastrichtian to Eocene age and Grand-Béréby Archean rocks, situated in the south of Côte d’Ivoire.

During the conference, a new scientific cooperation was born between the Geology Department of the University of Tunis El Manar (Tunisia) and the University of Cocody (Côte d'Ivoire).

In order to promote the African Geoparks Network "AGN" which is being established by AAWG several activities are in progress. The AAWG and the AGN are organizing in collaboration with UNESCO Cairo Office the First International Conference on African and Arabian Geoparks which will be held in 2011 in Morocco. The conference also aims to launch the Arabian Geoparks Network. AAWG is also participating to the conference organized by the student of the Royal Agricultural College (UK) on the 7th March 2011 entitled "*Geotourism: An Opportunity for Sustainable Development*". The AAWG and the AGN are also organizing a panel discussion session entitled "Role of geoparks in promoting Earth Sciences and their importance in the society" during the 6th Science Centre World Congress, in Cape Town, South Africa in September 2011.

The AAWG is organizing a workshop in April-May 2011 in Cameroon entitled "*Géosciences au service de l'Afrique*". During that workshop, the AAWG Cameroon Chapter will be launched officially. The 6th AAWG conference entitled "Women & Geosciences in the service of the society" will be organized in 2012 in Cameroon. The organizing committee is already established and the first circular is under preparation.

The AAWG received for the first time funding from IUGS on the 2nd November 2010 which it couldn't be used during 2010, but that money will be used in the organization of the Cameroon. AAWG is requesting the IUGS to continue a regular funding to the association for the next years.

The Committee ACCEPTED the AAWG report

4) Association of European Geological Sciences (AEGS) – Charvet

No report received

5) Arab Geologist Association (AGA) - Riccardi

The report, signed by Sarmad shaker Mahmaood, AGA's Secretary and President of the Iraqi Geologists Union, deals with different issues, some of them directly related to AGA whilst others appear to be more related to the Iraqi Geologists Union.

Those related to AGA include: 1) A meeting between the AGA Secretary and the AGA President (which is also President of the Jordanian Geologists Union) on 9/2/ 2009, where they discussed cooperation issues between the two unions and participation in a conference to be held in Cairo, Egypt. 2) Invitations received from the Jordanian Geologists Union to attend: a meeting of AGA in May 2009, during a conference on the environment, and a Global conference on Meteors in Amman, Jordan, to be held on November 2009. As a result Delegates of the Iraqi Union attended a meeting of AGA on 23-24/5/2009, in Jordan, which was attended by delegates of Iraq, Jordan, Yemen, Libya, Egypt, Sudan, and Syria. The Council of the Iraqi Geologists Union agreed to pay USD 500 annually to the Secretary General of AGA. 3) A conference of Syrian geologists was held on 26-28/10/2009 in relation to AGA and under the patronage of the Ministry of Oil and Mineral Resources. Participation of Iraqi geologists was discussed in a meeting of the Presidents of the Iraqi Geologists Union and the President of the Syrian geologist's society Mr. Adel Al-Zaghby in the headquarters of the Ministry of Oil in Damascus, Syria. 4) On 23-25/2/2010 will be an international meeting in Egypt where it will be discussed the admission of new members, supposedly of AGA.

Sarmad Shakir Mahomoud (AGA), present at the meeting presented an overview of AGA's main activities.-

Alberto Riccardi was appreciative of the report and said this was a good explanation of how things work in that group. Alberto thanked Sarmad Shakir Mahomoud (AGA) for attending the EC meeting and for sending the report both for last year and for presenting this year's report.

The Committee ACCEPTED the AGA report and AGREED on the following actions:

ACTION ITEM #41: IUGS EC to study the Arab Geological Association proposal for an International Year of

Geology.

ACTION ITEM #42: IUGS to study a proposal of the Arab Geological Association to eliminate the statutory difference between Active and Inactive countries.

6) American Geological Institute (AGI) – Simpson

Simpson reported that AGI is a very active organization which continues to expand its activities especially in education, and in making relevant geoscience information available to researchers, the public, and government decision-makers. It provides a major service to its associated organisations and to geoscience on the internet.

The AGI website lists all of the geoscientific and professional associations it has however there is no mention that it is an affiliate of the IUGS. While a search within the AGI website came up with a lot of references to the IUGS (from within its information storage), a direct reference to, or link to the IUGS from any part of the AGI website could not be found. This organization represents 120 geologists.

The Committee ACCEPTED the AGI report

7) Association of Geoscientists for International Development (AGID) – Hill

Hill reported that AGID operates as a decentralized organization with autonomous national groups in countries such as Bangladesh and Nigeria. AGID's central administrative costs are negligible with no office and all work performed by volunteers. Administrative costs of national groups are supported by the groups who collect membership fees. Central funds are available for AGID's official projects (IUGS grants).

The 'Earth is Mine' **TEAM Project** originated as an AGID IYPE proposal which did not receive IYPE funding. AGID went ahead with two pilot projects in Nigeria and Bangladesh. The TEAM project is designed to spread practical knowledge about geosciences and its relevance to daily life amongst schoolchildren in low-income countries and it now in its second year and making good progress toward goals. TEAM Nigeria received \$600 from AGID (IUGS grant) and raised \$2000 locally to target students from 40 schools in 6 regions as well as support the transportation of students to museums. TEAM Bangladesh established a training centre at the Geological Survey of Bangladesh named the Geoscience Awareness and Training Centre with a goal to create an awareness of the importance of geoscience knowledge and its application in everyday life.

Through the **William Greenwood Scholarships** program for Postgraduate Students, several modest scholarships of \$100 are awarded each year to support research fieldwork of postgraduate students in developing countries. 2010 number of scholarships was not listed in report.

AGID continues to lead the Working Group on Geoethics. The next meeting is scheduled for October 2011 to discuss preparations for the geoethics symposium at 2012 IGC. AGID is providing the Theme Coordinators for Theme 2: Geoscience in Low-Income Countries for IGC.

The scientific proceedings of the Geoscience for Global Development (GeoDev) Conference Bangladesh 2009 are in the final stage of preparation and should be published shortly.

AGID received an IUGS grant for \$1,000 in 2010 for the TEAM projects and William Greenwood Student Grants. AGID is asking IUGS for \$1,000 for project support in 2011.

AGID has been successful in keeping their overhead costs low, maintaining a volunteer work force, building partnerships to leverage activities and funding, being active in the IGC program, supporting student grants, and continued focus on developing countries. Continued support for AGID at \$1,000 is recommended.

The Committee ACCEPTED the AGID report

8) American Geophysical Union (AGU) – Simpson

No report received

9) Association Internationale Pour l'Etude des Argiles (AIPEA) - Cavazza

Cavazza reported that AIPEA is an international association consisting of all of the national clay societies in the world, acting as an umbrella organization to coordinate and facilitate international activities and collaborations. The aim of AIPEA is the worldwide promotion of, and cooperation in, clay research and technology. The tools to achieve these goals are: 1) international clay conferences held every four years; 2) stimulation of excellent young clay scientists through grants and awards; 3) rewarding active clay scientists with a brilliant career in clay research; 4) stimulation of communication among clay researchers and technologists.

AIPEA's efforts in 2010 were directed towards (i) attracting new clay societies to become affiliated to AIPEA (negotiations underway with the Tunisian Clay Society and the Chinese Clay Minerals Group) and (ii) the publication of the 1st monograph in the AIPEA Educational Series entitled Interstratified Clay Minerals – Origin, Characterisation and Geochemical Significance.

The AIPEA website mentions its affiliation with IUGS and IUGS logo. They are not requesting IUGS support.

The Committee ACCEPTED the AIPEA report

10) Balkan Geophysical Society (BGS) – Tandon

No report received.

11) Carpathian Balkan Geological Association (CBGA) – Tandon

No report received.

12) Coastal Committee for Offshore and Geoscience in East and South East Asia (CCOP) – Zhang Hongren

No report received.

13) Commission for the Geologic Map of the World (CGMW) – Charvet

Charvet commented that this is a very active organization and reported on the main achievements in 2010 concern:

- Digital data of the 3rd edition of the Geological Map of the World, now presented in a DVD containing the GIS and complete databank of the map,
- Explanatory notes for the 3rd edition of the Geological Map of the World in three languages: French, English and Spanish. French and English versions can be downloaded at the CGMW website,
- The second edition of the Tectonic Map of Africa, at the scale of 1:10M, presented at the Congress on African Geology (CAG23) in Johannesburg in January 2011,
- Publication of the Magnetic and Gravimetric anomaly map of the Arctic, result of a cooperative work between the geological surveys of Russia, the United States, Canada, Norway, Sweden, Denmark, and Germany as well as, scientific institutions.
- Participation in seven meetings
- Active marketing policy in several media including Episodes.

The selling revenues increased a little bit in 2010, compared with 2009: 39 000 € instead of 35 000 €. They are expected to increase next years thanks to the publication of the latest flag maps (Geological map of the world, 3rd edition and the Tectonic Map of Africa).

The chief problems encountered in 2010 are financial:

- The difficulty to maintain the affiliation of some European geological surveys. Italy, Poland, the Netherlands and Belgium withdraw from CGMW, notwithstanding the very low level (600 €!) of their contribution.
- The promotion of maps at various exhibitions is made with a minimum of expenses and with a strong personal implication from the President and the Secretary General.

Unfortunately, the costs of this activity are far from being compensated by the sales and constitute an increasing line of expenses.

The plan for next year includes:

- workshop on the Tectonic Map of the Arctic (Paris, April 2011)
- publication of the World Gravity Anomaly Map for the next EGU in Vienna (April 2011) and the World Map of the magnetic declination,
- The 5th and last workshop, Beijing April 2011, on the International Geological Map of Asia at 1:5 M (IGMA), planned to be printed for Brisbane IGC.
- Maintain a sound financial situation, with a search of new sponsors and the help of UNESCO and different organizations for the mapping program.
- the printing of the next scheduled maps : the International Tectonic Map of Asia, the World Gravity Anomaly map, the Tectonic map of the Alps, the Geological map of the Middle-East.

For the period 2010-2012, 23 projects of maps are identified, and the participation to the main scientific meetings.

The activity of the Commission is obvious. The financial request is at the level of last year allocation

The Committee ACCEPTED the CGMW report

14) International Center for Training and Exchanges in the Geosciences (CIFEG) – Hill

No report received

15) Circum-Pacific Council for Energy and Mineral Resources (CPC) - Zhang Hongren

Zhang Hongren reported that The Circum-Pacific Council for Energy and Mineral Resources (CPC) has been established and for decades supported by famous American petroleum geologist Michel T. Halbouty. Founded in 1972, CPC is a non-profit international organization of Earth Scientists and Engineers. The Council develops and promotes research and cooperation among industry, government and academia for the sustainable utilization of earth resources in the Pacific Region.

The Council's goals include: improving knowledge of earth resources and damaging geologic hazards in the Pacific Region; increasing collaboration among geologists, hydrologists, biologists, oceanographers and related scientists; and disseminating earth-science information through maps, publications, symposia and workshops.

The CPC activities last year have been concentrated on seafloor and coastal mapping within and around the Pacific Basin for the evaluation of resources and benthic habitat characterization. These activities included a GeoHab/CPC co-sponsored GeoHab Conference held in Wellington, New Zealand May 2010 and a Applied South Pacific Geoscience Commission's (SOPAC), Science, Technology and Resources (STAR) groups SOPAC/STAR/CPC special session on "Map Once, Use Many Ways" that took place in October 2010 during the last SOPAC Annual Session in Nadi, Fiji.

At the Fiji meeting new officers were elected. The new Chairman is Ed Saade of Fugro Earthdata and the President is H. Gary Greene of Tombolo, Secretary is Erick Mack, and Acting Treasurer is Gary Greene. The coming events in 2011 are the GeoHab Annual Meeting in Helsinki, Finland to take place May 3-6 where the CPC will convene a workshop on "Mapping the Seafloor for Energy Development" and at the first Heads of Geosciences Organization meeting of the Applied Geoscience and Technology Division's (SOPAC), now a new division of the Secretariat of the Pacific Community (SPC), STAR session in Rarotonga, Cook Islands

will convene a workshop on deep-sea minerals, which will take place in early October. Selected Directors' and Officers of the CPC will meet in conjunction with these meetings. No financial requirement is requested from IUGS.

The Committee ACCEPTED the CPC report

16) Drilling, Observation and Sampling of the Earth's Continental Crust (DOSECC) – Charvet

No report received

17) European Association of Science Editors (EASE) - Riccardi

The aims of EASE are in promoting improved communication in science. EASE is a not-for-profit organization, registered in England and Wales.

EASE is affiliated to both IUGS and the International Union of Biological Sciences and is an international non-governmental organization in relationship with UNESCO and the International Organization for Standardization. EASE also co-operates with editors' associations around the World, and is represented at meetings of ISO and BSI.

In September 2009 the EASE triennial conference was held in Pisa in September on Integrity in Science Communication, centered on three themes: Physical integrity, including plagiarism and data preservation; Moral integrity, covering bias in peer review, authorship and conflict of interest; Editorial Responsibility, examining intellectual property and how to detect image manipulation. During the conference a new Council was elected for a three-year term with Joan Marsh as the incoming President. During 2009 four issues of the journal *European Science Editing* (ESE) were published and the EASE web site was expanded and an EASEditors Twitter account was launched.

EASE main funding is from membership subscription, advertising, sales of the SEH, subscriptions to ESE, and from the triennial conference. No money is requested from IUGS.

The Committee ACCEPTED the EASE report

18) The European Federation of Geologists (EFG) - Charvet

Charvet reported that The European Federation of Geologists was established in 2009, and includes 20 country members. The regulations were checked and adopted in 2010 by the Council.

The other main activities in 2010 were devoted to the following 4 main items.

Implementation and management of EFG European Projects.

EFG has been active in three European projects, one as coordinator: GEOTRAINET project, and two as a partner.

The project GEOTRAINET, "Geo-Education for a sustainable geothermal heating and cooling market", is a European initiative for training and education of designers and drillers of geothermal heat pumps: a 2,5 years project (2009-2011) with a budget of 952 000 € (EU contribution: 75%). The EFG activity was dealing with: management (2 management meetings); establishment of curricula: one on Geosciences and design, one for drillers and other professionals, with contents and programmes of training courses; teaching tools; certification framework; direct training; and dissemination. Five training courses were delivered in 2010. The final conference was held on January 27th, 2011, in Brussels.

EFG is partner of the project EURO-AGES, "European Accredited Geological Study Programmes", for the development of Europe-wide quality standards and criteria for the assessment of higher education programmes in geology, a 2 years (2009-2011) programme with a budget around 265 000 € (EU contribution: 75%). The objectives of the work are to increase transparency of Earth Sciences qualifications across Europe and improve mobility; it has the support of the European Commission. After two meetings in the year, the final conference was held in October in Budapest, Hungary. It produced a final report:

Qualification framework and accreditation criteria for geology study-programmes in Europe.

The project TerraFirma is a Pan-European ground motion information service on several thematic areas: tectonics, flood, hydrogeology, using satellite radar data. It is elaborated by ESA within the GMES Programme (Global Monitoring for Environment and Security) and started in 2003. The last three-year stage will end in 2012. A follow-on project involving the EFG: PanGeo, starts in February 2011 for 3 years.

Maintenance and promotion of the EurGeol Title.

The Council approved the criteria for award of the title of European Geologist and the corresponding regulations and procedures. The number of European Geologists was 663 at the end of 2009.

Panel of expert's activity.

EFG is involved in the activity of panels of experts on: Geothermal Energy, Engineering Geology, Natural Hazards & Climate Change, Resources and reserves minerals and their sustainable use, Environmental Impact, Hydrogeology, CO2 Geological Storage. There are problems with the coordination of some PE, such as PE on Environmental Impact and on Hydrogeology. All the panels have received an invitation for reporting to EFG Council in April 2010. Only the one dealing with CO2 storage answered.

EFG communication.

It was made through the website, regular issue of the newsletter - GeoNews, publication of European Geologist Magazine, and e-mails to members.

Without any doubt, the EFG has an important activity, significant at the European Review.

The Committee ACCEPTED the EFG report

19) European Geoparks Network (EGN) – Charvet

No report received

20) European Mineralogical Union (EMU) - Cavazza

Cavazza reported that EMU is an international scientific organization. Its objective is to further European cooperation in the Mineralogical Sciences (mineralogy, petrology, geochemistry). The activities include the (co-) organization of meetings and Schools, and publishing of the book series '*Notes in mineralogy*'. The members of EMU are national scientific societies representing mineral scientists from European countries. There is no individual membership.

During 2010 EMU organized a Schools on '*Ion partitioning in low temperature aqueous systems: from fundamentals to applications in climate proxies and environmental geochemistry*'; organizers: Manuel Prieto and Heather Stoll (University of Oviedo; June 27 to 30, 2010). Scope of the School: understanding solid solution and aqueous solution processes (*i.e.*, ion partitioning in mineral-water interactions) which is of fundamental importance to geochemical studies.

EMU helped 56 institutional libraries facing serious financial difficulties (mainly in Eastern Europe and Latin America) by donating them free subscription of European Journal of Mineralogy.

Two volumes of the EMU Notes in Mineralogy were print in 2010: (i) '*Nanoscopic approaches in Earth and planetary sciences*' (F. Brenker & G. Jordan, eds.) (ii) '*Ion partitioning in low temperature aqueous systems: from fundamentals to applications in climate proxies and environmental geochemistry*' is in preparation (Manuel Prieto and Heather Stoll, eds.). The next volume is expected being ready for distribution end of January 2011: '*Industrial Mineralogy*' (G. Christidis, ed.).

The EMU website mentions its affiliation with IUGS but does not bear the IUGS logo.

No request for IUGS support.

The Committee ACCEPTED the EMU report

21) Italian Federation of Earth Scientists (FIST) – Cavazza

No report received.

22) Geochemical Society (GS) – Gerel

No report received.

23) Geological Society of America (GSA) – Hill

Wesley Hill reported that GSA is a well rounded organization that is linked to 53 societies globally. The next GSA meeting will be held in Minneapolis, Minnesota in mid-October. Wesley Hill is a council member of the GSA.

The Committee ACCEPTED the GSA report

24) Geological Society of Africa (GSAf) - Errami

Errami reported that during 2010, the Geological Society of Africa “GSAf” committee executive members and ordinary members participated in activities organized by international organizations on the African continent. They are taking part in the Seismotectonic map of Africa working group. The 23rd Colloquium of the African Geology “CAG23” which was supposed to be organized in 2010 was held on January 2011. The GSAf partially sponsored 10 young Earth Scientists to attend the YES conference organized jointly with the CAG23. The CAG24 will be organized in 2013 in Ethiopia.

The GSAf compiled a list of higher education institutions in Africa dealing with Earth Sciences and interested in receiving copies from the Journal of African Earth Sciences free of charge and submitted it to United Nations Economic Commission for Africa. It has published 12 regional e-bulletins. The GSAf will be responsible of the scientific aspect of the African-European Georesources Observation System during its final stage.

The GSAf are presenting a financial report and are asking for regular funds from IUGS.

Website: www.geologicalsocietyofafrica.org

The Committee ACCEPTED the GSAf report

25) Geological Society of India (GSI) - Riccardi

The Geological Society of India (GSI) was founded in 1958 with the main objectives of promoting the cause of advancement in all branches of Earth Sciences in India by co-operating with other institutions with similar objectives. The GSI has 1497 Life Members, 755 Annual Members, 10 Honorary Fellows and 11 Corporate Members. The report submitted by the GSI is for the year 2009-2010 which ended 31 March 2010.

During the reported period GSI published a monthly journal, including a Special Issue on Structural Geology, three text-books, and a popular book on Climate Change, organized a two international conferences, and five national seminars/conferences. An electronic version of the journal is being published under an agreement with Springer (India) Pvt. Ltd. A number of other activities were also developed by the GSI Chapters of Northern and Northeastern India, at Delhi and Imphal.

The GSI continued with an important programme of monthly meetings and lectures to provide a platform to young scientists, researchers, professionals and academicians to present their results of research.

The GSI website, which is linked to the IUGS website, underwent significant improvements with a continuous updating of its database. Author and/or Subject specific retrieval of data from the Society’s Journal since

1970 is easily obtained. The database is being developed through a project with funding from the Department of Science and Technology which has been extended to 2011.

The GSI continued to expand its Library, which at present is receiving 56 journals from different National and International Earth Science Organizations.

The GSI is concerned with conservation and scientific exploitation of mineral and water resources of India without degrading the environment. In this context it conducted two National Conferences, one local seminar and actively participated in a National meeting.

Relationship with the IUGS has been steadily improving thanks to the affiliation of the GSI to IUGS and through the MOU between GSI and IUGS formalizing the GSI editorial and production support to publish IUGS journal Episodes. In the period reported all the four issues of Episodes have been published within the scheduled time frame namely Vol. 32, No. 2 (June 2009), No. 3 (September 2009), No. 4 (December 2009) and Vol. 33, No. 1 (March 2010). All back issues of Episodes have been uploaded in the GSI website.

Income and Expenditures for 2009-2010 amounted to 8,992,909.00 (~ USD 204,384.00). The Balance Sheet for 2009-2010 indicated Liabilities and Assets for 19,037,818 (~ USD 432,678.00). The GSI received a grant from the Ministry of Earth Science of 2,500,000.00 (~ USD 56,818.00).

The Committee ACCEPTED the GSI report

26) Geologische Vereinigung (GV) – Errami

Errami reported that the Geologische Vereinigung which has more than 1600 members in over 60 countries celebrated its 100-year anniversary on October 10, 2010. In 2010 the annual meeting “Geosciences Secure the Future” took place in Darmstadt as a joint meeting together with the Deutsche Gesellschaft für Geowissenschaften, the 8th European Coal Conference and many geo-societies and scientific institutions. Special support was provided to students to attend the meetings and the courses. In 2009 the ranking of the International Journal of Earth Sciences “Geologische Rundschau” improved as reflected by the journals citation index. The GV section “Sedimentology” and the optional combined membership with the *Deutsche Mineralogische Gesellschaft* have been established successfully. The society is publishing the *Geowissenschaftliche Mitteilungen*, a quarterly journal jointly edited with the other earth-science societies of Germany. The GV publishes new series entitled “Frontiers in Earth Sciences”. In the report, no financial report is given and also no money required. Website: <http://www.g-v.de/>

The Committee ACCEPTED the GV report

27) International Association of Engineering Geology and the Environment (IAEG) – Bobrowsky

Bobrowsky reported that the IAEG holds a council meeting every two years. The last meeting held was in New Zealand in September of 2010, and where IAEG elected and appointed a new executive. They are now working to improve their website considerably. IAEG includes a total number of national groups of 55, there are 24 associated members and the total number of individual members is 3543. The annual budget is about 115k Euro, with total assets near 300k Euro. IAEG publishes a successful journal called the IAEG Bulletin with Springer and is now planning to move to a digital online version. Their E-Newsletter is not regularly published. IAEG supports 22 Commissions which work on a variety of subjects one of which is now Building Stones (which is relevant to IUGS). Virtually every member country organized some sort of national conference on engineering geology in 2010. Although one issue of the IUGS E Bulletin was mentioned in their Annual Report where there is no other mention of a relationship between IUGS and IAEG.

The Committee ACCEPTED the IAEG report

28) International Association of Geomorphologists (IAG) – Bobrowsky

No report received.

29) International Association of GeoChemistry (IAGC) - Ochir

Ochir reported that there are many students involved in the organization and the newsletter is provided semi-annually. The IAGC is a pre-eminent international geochemical organisation whose prime objective is to foster co-operation in, and advancement of, geochemistry in its broadest sense. We sponsor meetings and publications organised by our Working Groups to study problems that benefit from international cooperation. The Association's journal, *Applied Geochemistry*, is issued 12 times a year and periodically publishes special issues on topics of current importance. In addition, a Newsletter is published twice a year and made available to its members (about 350) either electronically or by regular mail for those that prefer a printed copy.

The IAGC has been very active in 2010, with the involvement of all Council Members and ordinary members in making a number of important changes to the IAGC and its method of operation. These changes include:

1. New Council members: In August during the IAGC business meeting held in Guanajuato, Mexico, Russell Harmon (USA) concluded his term as IAGC President and Vice President Clemens Riemann (Norway) assumed the position of IAGC President for a term that runs mid-2010 to mid-2012. Based upon nominations brought forward by the IAGC Nominations Committee, the IAGC Board selected Richard Wanty (USA) as its new Vice President for the next two years and elected six new Council Members (Ian Cartwright - Australia, Janet Herman - USA, Thomas Kretschmar - Mexico, Philippe Negrel - France, Martine Savard - Canada, and Teodora Szocs - Hungary), all of whom assumed their duties at the conclusion of the IAGC Business Meeting held in Guanajuato, Mexico during the Water-Rock XIII Symposium.
2. Business Office: In August 2010, the Business Office relocated from Pinawa, Manitoba, Canada to Columbus, OH, USA where it now operates in the same physical location as the Treasurer. Major changes are being made within the Business office and the association is working to modernize its operation and develop ways to better communicate with membership. Additionally, the IAGC Business Office is now responsible for collecting membership dues and subscription fees for the Association's journal, *Applied Geochemistry*.
3. Website: The IAGC has a new website (www.iagc-society.org) designed by the Business Office Manager and run through the IAGC Business Office and a server in Columbus Ohio. The website allows new users to join IAGC online and both new and renewing members to pay their membership dues, and subscribe to the society journal *Applied Geochemistry* online. Soon, the website will feature secure areas for working groups to share information and photos.
4. Statutes: During the Guanajuato business meeting, the IAGC Board approved minor changes to the IAGC Statutes & Bylaws. A copy of the current Statutes & Bylaws is available on the IAGC website.
5. "Elements": In 2005, IAGC joined with six other geochemical societies (the Mineralogical Society of America, the Mineralogical Society of Great Britain and Ireland, the Mineralogical Association of Canada, the Geochemical Society, the Clay Minerals Society and the European Association for Geochemistry) to establish the international community magazine of mineralogy, geochemistry and petrology "Elements" as a benefit to all society members. As of 2010, the number of participating societies is up to 16. The IAGC continues to make bimonthly contributions to Elements and to make announcements about Association highlights and the IAGC Working Group meetings.
6. Awards: Each year IAGC bestows a set of awards and PhD student research grants. The recipients of the 2010 awards were: (i) IAGC Vernadsky Medal for a distinguished record of scientific accomplishment in geochemistry over the course of a career to Mike Edmunds (UK), (ii) IAGC Ebelmen Award to a geochemist of particular merit and outstanding promise less than 35 years old to Quinghai Gua (China), IAGC Fellows to Brian Hitchon (Canada) and Miriam Kastner (USA). IAGC Certificates of Recognition: Sigurdur Gislason (Iceland), Simcha Stroes-Gascoyne (Canada), and Richard Wanty (USA). The Hitchon Award for a significant paper in the IAGC journal *Applied Geochemistry* went to Laurlet Charlet (France), Sudipta Chakraborty (India), C.A.J. Appelo (The Netherlands), Gabriela Roman-Ross (Spain), Bibhash. Nath (India). G. Ansari (France). N. Lanson (France) D. Chatterjee (India), and S. Basu-Mallik (India) for the 2007 paper "Chemodynamics of an Arsenic 'Hotspot' in a West Bengal Aquifer: A Field and

Reactive Transport Modeling Study.” *Applied Geochemistry*, 22: 1273-1292. For 2010, PhD student research grants were awarded to: Kristina Puskas of the University of South Florida (USA), Lindsay MacKenzie of the University of Montana (USA) and G. P. Gurusamy of the Mainipal Institute of Technology (India). Darrel Kirk Nordstrom, this year’s IAGC International Ingerson Lecturer, was invited to Europe by the Norwegian Geological Survey (NGU) to present the International Ingerson Lecture in NGU’s Goldschmidt-lecture series in September 2010. Dr. Nordstrom was then invited to give multiple talks in Europe, including at the French Geological Survey (BRGM) and the Technical University in Freiberg, Germany.

7. Conference support and sponsorship: Conference support and sponsorship during 2010 included the 13th International Symposium on Water-Rock Interaction (WRI-13), held from 16-20 August 2010 in Guanajuato, Mexico. The IAGC also continued its presence and involvement in the Geological Society of America Annual Meeting, in Denver, CO (USA). For the 15th straight year, the IAGC has presided over the technical session entitled “Sources, Transport, Fate, and Toxicology of Trace Elements in the Environment” at the annual conference. The IAGC also sponsored five technical theme sessions at this international conference. Future plans include sponsoring of the 9th International Symposium on the Geochemistry of the Earth’s Surface (GES-9) which will be held from 3-7 June 2011 at the University of Colorado in Boulder, CO (USA) and the 9th International Symposium on Applied Isotope Geochemistry (AIG-9) that will be held in Tarragona, Spain, from 19-23 September 2011.
8. Applied Geochemistry: The IAGC’s journal, *Applied Geochemistry*, continues its excellent progress under its Executive Editor, Dr. Ron Fuge. The journal is in a very good state, its international recognition is continuously improving, pages numbers continue to increase and its impact factor has increased for the sixth year running.

The Committee ACCEPTED the IAGC report

30) International Association on the Genesis of Ore Deposits (IAGOD) - Ochir

No report received

31) International Association of Hydrogeologists (IAH) – Errami

Errami reported that IAH is a charitable, incorporated organization registered in the United Kingdom. Its objectives are to advance public education of groundwater science and to promote hydrogeological research.

The Association seeks to meet its objectives by publications, promoting international co-operation, education and technology transfer programmes, sponsoring international meetings, and cooperating with other scientific organizations

ORGANIZATION

IAH has 3750 individual members in over 135 countries. There are currently 44 National Chapters. The present Association’s Council will serve until 2012. The administration of IAH is carried out by the International Secretariat which is located in the United Kingdom.

MAIN ACTIVITIES IN 2010

Meetings and Conferences

The major IAH event of the year was the 38th Congress which was held in Krakow, Poland in September. The congress was attended by 520 participants from 70 countries. Within the overall congress theme of “Groundwater Quality Sustainability”

The congress programme also provided for meetings of the Council and the General Assembly of the Association and for the IAH Commissions on Managing Aquifer Recharge, Urban Groundwater, Hydrogeology of Hard Rocks, Climate and Groundwater Change, Coastal Aquifer Dynamics, Thermal and Mineral Waters and Groundwater Protection.

In addition to this major event, IAH, through its Commissions and Chapters, organized and co-sponsored nearly 20 groundwater related meetings around the world.

IAH Scientific Commissions

During 2010, the IAH Council has undertaken a process of review and reform with the intention of significantly improving the Association's scientific activities. A new structure of commissions, networks and working groups will be established from mid 2011 with stronger reporting requirements.

PUBLICATIONS

Hydrogeology Journal, published by Springer, has become one of the major cited international journals dealing with groundwater issues. It is now completing its 18th volume and has 8 issues per year with a target of 2050 pages annually.

FORWARD LOOK TO 2020

- Improved delivery of services and up to date information to the membership via the IAH website;
- Greater professionalism in the organisation of IAH conferences and a higher standard of technical presentation;
- Attracting more younger groundwater specialists to join IAH and to become involved in its commissions, national groups, conferences and publications;
- Greater efforts in advocating for the importance of groundwater and the need for more investment in its understanding, management.
- Expanding membership further beyond present earth science roots;
- Greater efforts to fulfil out stated educational objectives and support to members in developing countries.

Subsequent congresses are planned for Canada in 2012 and Australia in 2013. No financial requirement.

The Committee ACCEPTED the IAH report

32) International Association for Mathematical Geosciences (IAMG) – Simpson

Simpson reported that though relatively small the IAMG is quite an active organisation. The first link shown among the many links on their website "Miscellaneous Links & Information" page is to the IUGS web. The First Circular for the IGC 2012 can also be accessed from the home page of their web (<http://www.iamg.org/>).

In the cover letter included with their 2010 Annual report they request a grant of \$5,000 from the IUGS to support travel expenses of scientists from various countries to attend IAMG sponsored conferences in 2011. The IUGS grant "...kindly provided to the IAMG in 2010 was used to support student travel expenses and student research...".

The Committee ACCEPTED the IAMG report

33) International Association of Sedimentology (IAS) – Cavazza

No report received. William Cavazza suggested that Ochir Gerel's Task Group contact the IAS for the report.

34) International Consortium on Landslides (ICL) – Bobrowsky

No report received.

35) International Federation of Palynological Societies (IFPS) - Tandon

No report received.

36) International Geoscience Education Organization (IGEO) - Hill

No report received.

37) International Mineralogical Association (IMA) – Cavazza

No review provided.

38) International Medical Geology Association (IMGA) - Zhang Hongren

Zhang Hongren reported that last year the IMGA had formalized the Association by developing and adopting a Constitution and By-laws. Several new Chapters have been developed in many parts of the world to include membership, dues, and finances

As of December 2010, IMGA had about 300 paying members and 100 members who are in the process of paying. IMGA membership is worldwide, representing more than 55 countries.

Chief accomplishments:

Newsletter

In 2010, two newsletters and 3 e-newsletters by e-mail were published. From newsletter 2-2010 the newsletters will only be distributed as pdf files to all members.

Website

The website is updated at least every second week and expanded.

Regional Divisions

IMGA has at present following active Divisions : South America, Central America, Russia and NIS

Short courses

The following courses have been held this past year: Ireland, Turkey and Portugal. Courses are planned in e.g. China and Italy in 2011.

Conferences

Several national and international meetings have been attended during 2010, including: The First International Symposium in Iran on Medical Geology, Medical geology at SEGH 2010 in Ireland, The XIII Congress of Toxicology and Chemical Security, Bogotá, Colombia in March 2010, GEOCANADA 2010 Conference: Medical Geology Poster Display Calgary, Canada, May 2010

Education activities

A one-credit Medical Geology class held at the University of Texas at Dallas (65 students). Karolinska Institute in Sweden is now preparing for regular courses in medical geology for medical students. A web based course in medical geology is in preparation and will be tested in 2011. Special Journal Publications to be included on Medical Geology.

IMGA has been deeply involved in Encyclopedia of Environmental Health, EEA, to be published by Elsevier. This will be published 2010. In addition, IMGA had published papers on medical geology in a large variety of journals during 2010.

There is no financial requirement

The Committee ACCEPTED the IMGA report

39) International Paleontological Association (IPA) - Tandon

Tandon reported on the highlights of the report:

- Third International Paleontological Congress was held in London from June 28- July 3rd and was attended by over 800 scientists.
- The ordinary meeting of the General Assembly of the IPA was convened at the Congress on July 1, 2010
- Significant developments include the initiation of the Lethaia Foundation Public lecture and the establishment of the Palaeoparks project. The Palaeoparks project of the IPA aims to support local and international organizations that aim to conserve sites of significant paleontological interest. The Palaeo parks project also calls for the designation of country representatives as well as the establishment of an IPA Committee to assess proposals for inclusion of sites in this program.
- IPA joined a consortium under the aegis of ProGEO in sponsoring a new journal titled Geo Heritage.

The Committee ACCEPTED the IPA report

40) International Permafrost Association (IPA) - Zhang Hongren

A bulletin was received in lieu of a report – no review provided by Zhang Hongren.

41) International Society for Rock Mechanics (ISRM) – Errami

No report received.

42) International Society of Soil Mechanics & Geotechnical Engineering (ISSME) - Errami

No report received.

43) Meteoritical Society (MS) - Ochir

No report received.

44) National Groundwater Association (NGWA) – Zhang Hongren

Zhang Hongren reported that the National Ground Water Association is the organization for anyone affiliated with the groundwater industry. NGWA is composed of more than 12,000 U.S. and international groundwater professionals — contractors, scientists and engineers, equipment manufacturers, and suppliers. NGWA is actively working with the 100 largest North American university groundwater programs.

Professional Development

The Petroleum Hydrocarbons and Organic Chemicals in Ground Water® Forum were presented by NGWA in Las Vegas, Nevada, December 9. NGWA offered its first virtual conference on Groundwater and Fractured Rock October 27. The conference included presentations related to the Marcellus Shale of the United States, hydraulics, and characterization and remediation.

Publications

NGWA's two technical publications, Ground Water and Ground Water Monitoring & Remediation, saw their impact factors increase. The IF for Ground Water is 1.831, an increase of more than 40 percent. The journal also improved its ranking among the 60 publications in the water resources category. The IF for Ground Water Monitoring & Remediation is 1.033, a slight increase over its previous IF (0.957). Ground Water Monitoring and Remediation is celebrating its 30th year of publication.

Ground Water Science and Engineering

Drafts of several NGWA best suggested practices are in various stages of development. Included are efforts toward aquifer storage and recovery, sustained yield in a hydrofractured well, managing brackish groundwater, inspection of water supply wells, and dealing with perchlorate in groundwater.

Public Awareness

- In response to January's devastating earthquake in Haiti, NGWA advised the news media of NGWA informational resources related to earthquakes and groundwater/wells. Several news services, such as the New York Times, used NGWA information.
- NGWA's efforts related to Haiti were among 34 recognized on the 2010 Association Advance America Awards Honor Roll of the American Society of Association Executives.
- NGWA was a major sponsor of the 2010 Canon Envirothon, North America's largest high school environmental education competition.
- NGWA organized its first annual "Protect Your Ground Water Day" for Tuesday, September 14, to help meet a major organizational goal to "further water knowledge and protection through education and outreach."
- As with National Ground Water Awareness Week each March, many partners were enlisted to promote messages of groundwater contamination prevention and groundwater conservation.
- As part of Earth Sciences Week NGWA offered a Webinar focusing on women in the geosciences October 14. The Webinar is intended to encourage others, especially women, to pursue a career in the groundwater industry.

No financial requirement

The Committee ACCEPTED the NGWA report

45) The European Association for the Conservation of the Geological Heritage (ProGeo) – Bobrowsky

Bobrowsky reported that this affiliated group was very active in 2010 holding one central European meeting and three regional working group meetings. ProGEO's 6th International Symposium was held in cooperation with the 14th Annual Meeting of the Geoheritage Section of the German Society for Geosciences in Hagen, Germany (May 29-2 June, 2010). New ProGEO committee will be elected in 2012. A new regional working group was formed in southwest Europe (leader is E. Diaz-Martinez) and their first meeting will be tied into the role of IGCP (scheduled for 18 September 2011 in Caravaca de la Cruz, Spain). The regional group of southeastern Europe held a meeting in Elazig, Turkey on 16 September 2010, where a new leader from Romania was elected. Finally the regional group for northern Europe also met in Gdansk, Poland. Three issues of the ProGEO news was produced in 2010 and the first volume with two issues (1/2 and 3/4) was published for the journal GeoHeritage. ProGEO has applied for membership in the IUCN this year. UNESCO has been collaborating with ProGEO through GARS.

The Committee ACCEPTED the ProGEO report

46) Society for Economic Geologists, Inc. (SEG) – Ochir

No report received.

47) Society for Sedimentary Geology (SEPM) – Cavazza

Cavazza reported that this is a very active geosociety; SEPM held its Annual Meeting in New Orleans, LA jointly with A.A.P.G. This is a major congress attended by several thousands geoscientists every year. Both SEPM technical journals continued having excellent years. The Impact Factors for both journals increased again. With online science journal access being the preferred mode by many scientists and students, SEPM and its journals continued to play an important role, as a founder and current board member of the geoscience online journal aggregate, GeoScienceWorld GSW), which continues to thrive. JSR is part of the GSW and AAPG-Datapages, while PALAIOS is part of GSW, BioOne and JSTOR online aggregates. The

Special Publications of SEPM continue to produce top of the line products. In 2010, a total of four new books were published.

One of the biggest accomplishments this year was the final digitization and CD production of essentially all of SEPM past book publications, which includes some 150 books. This project, begun in 2007, was funded by contributions by the SEPM Foundation, Marta Weeks, Chevron, Shell and ConocoPhillips.

In 2010, SEPM held two research conferences, both of which were very successful (Denver and Petrified Forest National Park). The schedule for 2011 is projected to include two to three conferences with potential meetings in London (with GSL), California and Nova Scotia. A 2011 planned meeting in Mexico was postponed due to travel issues.

SEPM is working on digitization of the entire production of the society which will be available in the next three years. The SEPM website does not mention its affiliation with IUGS and does not bear the IUGS logo.

No request for IUGS support.

The Committee ACCEPTED the SEPM report

48) Society for Geology Applied to Mineral Deposits (SGA) –

Report and proposal were received from SGA, no review received from Ochir Gerel.

Alberto Riccardi informed that a request to have some courses in Africa has been received including a request for some financial support. The matter will be discussed when considering the 2011 budget.

The Committee ACCEPTED the SGA report and agreed on the following action:

ACTION ITEM #57: President Alberto RICCARDI to circulate the proposal by the SGA to the EC.

49) Geological Society of France (SGF) – Charvet

The report is included in these Minutes as a report of France (Item 5.d.2.14)

The Committee ACCEPTED the SGF report and agreed on the following action:

ACTION ITEM #27: President Alberto RICCARDI to contact AGI, SEPM and EMU and request that they provide a logo and link to the IUGS website.

6. INTERNATIONAL GEOLOGICAL CONGRESS (IGC)

6.a. 34th IGC in 2012 (Brisbane) - Ian Lambert, Secretary General IGC

Australia is hosting the 34th International Geological Congress (IGC) on behalf of the Oceania region. The opening ceremony will be 5 August 2012, and the closing ceremony will be in the evening of 10 August. The decision to make it 2-4 days shorter than previous IGCs was taken following a recommendation of the International Geological Congress Committee (IGCC), which met at the venue in June 2010. In making its recommendation, the IGCC noted the large capacity of the Brisbane Convention and Exhibition Centre, the high daily costs of renting the venue, and the time pressures on many delegates.

In addition to the scientific sponsorship of IUGS, the 34th IGC will benefit from the patronage of UNESCO and will celebrate the 40th anniversary of the IGCP.

The legal entity responsible for the 34th IGC is the Australian Geoscience Council (AGC), the peak body for Australia's geoscience societies and professional institutes. The primary responsibility for organizing the event rests with the core Organizing Committee (OC), which includes a representative of each of the larger

member societies of the AGC. The AGC societies are also investing in the event and contributing to the organization of range of Symposia within the IGC.

Geoscience Australia, the national geological survey and geospatial information agency, is playing a substantial role in the day-to-day organization of this large and prestigious event: it has committed to provide the Secretary General (Ian Lambert) and Deputy Secretary General (Paul Kay). Neil Williams, who retired as Chief Executive Officer of Geoscience Australia early in 2010, will continue as President of the 34th IGC. Also Lynton Jaques, who retired from his role as Chief Scientist late in 2010, will continue to the Chair of the Scientific Program Committee.

Geoscience Australia is also contributing financially, promoting AUSTRALIA 2012 nationally and internationally, preparing a book on “A Geology of Australia, and supporting several of the major activities during the Congress.

Australian State and Northern Territory Geological Surveys and GNS Science (New Zealand) are also strongly supporting the IGC. In particular, they are organizing field trips, contributing financial support, contributing to the scientific program and producing updated geological maps and overviews. Finances are an ongoing issue. The registration fees are likely to cover roughly half of the total cost of the event. Sponsorship efforts are ramping up. Resources and Energy companies have been the focus, but there are prospects from universities and others. Vale, the world's second largest mining company, is the first major sponsor of the Congress, based on its interest in the GeoHost program (below). Several other companies have committed to lower sponsorship packages.

The first Circular, which was distributed electronically in early October 2010, provides an outline of the scientific program and the 41 proposed field trips, as well as key dates and other information. This information and updates can be accessed through the congress web site: www.34igc.org.

The Second Circular, which is due in late April/early May 2011, will provide more information on the scientific program, including the titles and convenors of General Symposia, which are being developed under 35 Themes covering the whole of the geosciences. There will also be a program of Specialist Sessions, which will cater for IUGS-related groups and others wishing to organise sessions to present their scientific results; these will be organised by the groups concerned and the IGC will accommodate them in the final program. It is important that the 34th IGC receives formal notification of proposed Specialist Symposia by mid March 2011 as we may not be able to find suitable rooms for groups who leave it too long to register.

In addition, the Second Circular will provide information on, and application details for, the Geohost support program. This will be available on a competitive basis to young geoscientists and those from low income nations. Geohost will have two components:

- (1) Delegate support program, offering free registration, or free registration plus \$1000 toward living expenses.
- (2) Effectively fully supported participation for appropriate delegates from low income nations to participate in Training Workshops (Sustainable Mining, Geohazards and Groundwater, Geological Carbon Sequestration are being planned).

Registration details will be announced in the Third Circular, due in August 2011. In relation to a special 34th IGC Edition of *Episodes*, we are proposing that there be a major overview paper on the framework of the Australian continent, drawing on a lot of systematic geophysical and geological studies over the past decade, followed by a series of papers on the geological settings of the regions where field trips are to be held. This needs to be discussed further at this meeting.

The 34th IGC will incorporate the second Young Earth Scientists congress.

The contract between the Australian Geoscience Council and for the venue has been completed. At this stage we are only committing to the venue costs, which were negotiated at a 20% discount for the whole of venue. Catering costs will be negotiated closer to the event.

The Committee thanked Ian Lambert, the IGC Secretary General, for submitting a progress report on the IGC in Brisbane.

6.b. 35th IGC in 2016 (Cape Town) - Riccardi

During 2010, the Local Organizing Committee (LOC) for the 35th IGC in Cape Town, South Africa met three times to discuss progress with the preparations for the 2016 IGC meeting in Cape Town.

After the meeting of the IGCC in Brisbane in June of 2010, the date for IGC 35 was changed from early in August 2016 to the period 27 August 2016 to 4 September 2016.

Approval to enter into a Section 21 Company to host the 35th IGC was obtained and the process to register this company is under way. Lawyers to assist with the registration process have been appointed and currently the founding members for the company are being assembled. It is expected that this company will be in place in the very near future.

The first circular for the 35th IGC was completed and this brochure is now used to advertise the event at various venues. The first of these was the Colloquium for African Geology, which was held during January 2011 in Johannesburg and the second was the South African Mining Indaba during early February 2011 in Cape Town.

The website for the 35th IGC was registered and launched and is available at: <http://www.35igc.org/>. A link to this site is prominently displayed on the home page of the main Council for Geoscience website.

Issues that will receive urgent attention in the near future include the signing of the MOU with the IUGS, which is dependent on the formation of the Article 21 Company mentioned above; continued updating of the preliminary Conference Budget; initiation of sponsorship/funding negotiations and involvement of other African countries in the LOC. The next meeting of the LOC is scheduled for 22 March 2011, at which all these issues will be discussed.

The report includes some considerations on the relationships between the IGC and the IGCC, specifically on possible dates (September, November 2011) of the next IGCC to be held in Cape Town, and on the way of financing the meeting. In the last case two alternatives are considered: LOC pays expenses which are later deducted from the capitation fee payable to IUGS or costs paid now by IUGS who receives full capitation fee. The South African LOC prefers the second alternative.

The Committee thanked Danie Barnardo, the IGC Secretary General, for submitting a progress report on the IGC in Cape Town.

6.c. IUGS participation at 34th IGC - Cavazza – Riccardi

Looking at IUGS participation

- Poll the bodies of IUGS on what will happen at the next IGC conference.
- Know what all groups are involved in moving forward.
- Expect the IGCP to participate in the next IGC. This is a matter of standards for geosciences information.
- IUGS should have a more important role and symposium at the next IGC. The Congress will have more than 50 themes and one is on geological standards.
- Look at current proposed geostandars and add the stratigraphic proposal as well.
- Hutchison fund -- former IUGS Chair from Canada - this is for students in the IGC -- \$50K. A portion will go to the students attending IGC.
-
- Science award to be given at the conference. Commissions will provide candidates. Awarded to the candidate who published the best article printed in in *Episodes*.

- Stratigraphy prizes awards suggest that these evolve in IUGS awards and possibly be given at the beginning of the Congress. Alberto Riccardi agreed the decision will be delegated to the international commissions whether it would be IUGS award.
- Expect a strong showing from IUGS at the IGC Congress.

The Committee AGREED on the following action:

ACTION ITEM #5: ICS Chair Stan FINNEY to propose to the IUGS EC a solution regarding the relationship/transition of existing ICS Awards into new IUGS Awards.

6.d. IGC Statutes - Leahy

A Task Group was formed to streamline the statutes of the IGC and the Statutes and By-Laws of the IUGS. The Task Group members consist of: Patrick Leahy, Ian Lambert, Jacques Charvet, Bjorlykke and Eldridge Moores.

Issue:

The Florence review of council meetings resulted in the recommendation to gather current and former versions of the IUGS and IGC statutes and by-laws. This proved to be a difficult task since there were multiple copies and various editions of IUGS and IGC statutes.

First actual meeting was held February 18 & 19, 2011, at UNESCO in Paris. The Task Group will produce two items by summer 2011: a) IUGS – Statutes & By-Laws and b) IGC Statutes.

Proposed Timeline:

- The Task Group will make final review by early summer and distribute to IGC and IUGS for review. It is important to have the internal houses of IUGS and IGCC before moving forward to approval from outside groups.
- August 2012 – Next step is to have Council approve these two documents.
- August 2016 – Envision that by the IGC Meeting in Capetown, that the two documents will have been condensed into a single document.

Pat Leahy noted that the mandate of the commission is simple and straightforward and opinions are welcome.

Alberto Riccardi attended the review and was impressed with what had been accomplished in very short time. William Cavazza commended Pat Leahy on the new and objective approach being taken.

The Committee ACCEPTED the report and commended Pat Leahy and the Task Group for work being done.

6.e. International Geological Congress Committee (IGCC) Riccardi - Bjorlykke

The IGCC is in charge of looking after the permanent interest of the Congress in close collaboration with the incoming Organizing Committee (IGC Statutes 5.1).

The IGCC consists of: a) the President and the Secretary General of the ongoing Organizing Committee, b) the President of the immediate past Session; c) the President, the Secretary General and the Treasurer of IUGS; d) the Secretaries General of the three immediate past Sessions (IGC Statutes 5.6).

During 2011 the IGCC met in Brisbane on June 24-25, 2010. As a result of the meeting the IGCC:

1) Met approval for the minutes of the last IGCC meeting held in Oslo, Norway, on August 2008;

2) Congratulated the 33rd IGC for the final report included in the General Proceedings of the 33rd IGC (www.33igc.org);

- 3) Was very satisfied with progress for the 34th IGC. IGC Secretary General was requested to feed information and posters to universities, surveys, etc. and contact IUGS Commissions, Executive members and others to formally invite their participation in the 34th IGC, and suggest ways in which they could be involved. 34th IGC to be promoted at major geoscience meetings in North America, Europe, and Asia;
- 4) Was impressed by the standard and the flexibility of the Brisbane Convention and Exhibition Centre venue;
- 5) Agreed on 34 IGC Secretary General to correspond with UNESCO about patronage and support for attendance by developing nation delegates under the UN umbrella, and on IUGS and UNESCO to write to IGCP convenors/project leaders to invite them to participate in the 34th IGC;
- 6) Agreed that consideration will be given by 35th IGC Organising Committee to dates later in August for the 35th IGC;
- 7) Agreed that a letter, signed by the Chairs of the IGCC, will be forwarded to all national committees seeking indications of bids for the 2020 IGC by mid 2011. Bids to be considered for a decision by IUGS-IGC Council at the 34th IGC in Brisbane, Australia in 2012;
- 8) Agreed to have a common website for earlier IGC home pages, and that after completion of an IGC's proceedings, the web hosting responsibility will shift to the IUGS;
- 9) Agreed that IUGS President will contact the IUGG regarding the establishment of a working group to consider coordination of IGC and IUGG Congresses and cooperation on Congress activities;
- 10) Agreed that a new IUGS/IGCC task force will be established to consider the current separate Statutes and Bylaws of the IGC and IUGS. The taskforce will comprise 2 persons from the IGCC, two persons from the IUGS and one independent chair, appointed by agreement of the IGCC and IUGS EC. The starting point should be the existing Statutes. Once revised, the new versions will be submitted for approval respectively by the IGCC and IUGS EC, and subsequently to the IUGS/IGC Council for ratification;
- 11) Agreed that an IGCC meeting will be hosted by South Africa at the Cape Town 35th IGC venue with financing matters to be negotiated between the IUGS, IGCC and the local organising committee;
- 12) Agreed that an IUGS EC meeting and IGCC meeting will be held the day before and the day after the Congress proper. Council meetings at the 34th IGC will be held during the session days of the event, at times to be finalized.

Outcomes of this meeting were:

- 1) An IUGS/IGCC task force was established to consider the current separate Statutes and Bylaws of the IGC and IUGS. The task force comprises 2 persons from the IGCC (Arne Bjorlykke and Ian Lambert), two persons from the IUGS (Eldridge Moores and Jacques Charvet) and one independent chair (Pat Leahy). The task force is moving forwards with its task.
- 2) An IGCC-IUGG working group was created for coordination of International Geological Congresses (IGC) and IUGG General Assemblies. Members of the WG are Dr. Abel Hansen, Dr. Alik Ismail-Zadeh and Dr. David Jackson (alternative member), representing IUGG, and Dr. Ernesto Abbate, Dr. Peter Bobrowsky, and Dr. Anders Solheim (alternative member) representing IGCC-IUGS. A TOR for the working group is now being prepared.

The next IGCC meeting will be held in South Africa, at the CTICC (Cape Town International Conference Centre) later in 2011. Suggested dates include: 1) September 2011 (this is very close to the date booked for IGC in 2016 and would give delegates an idea of the Cape Town weather during this time of the year); 2) November 2011.

The matter of the financing of the event also needs clarification. In the case of the Australian IGC, the Australian LOC stood in for all expenses and the amount was deducted from the capitation fee payable to the IUGS. In the case of South Africa, we would prefer it if the cost could be borne by the IUGS, which would mean that the full capitation fee will be paid to the IUGS in the case of South Africa, the reason being that Australia already had sponsorship funding when they hosted the IGCC meeting in 2010, but South Africa is not in that position yet.

The Committee THANKED the IGCC Co-Chairs for the report on IGCC activities.

7. UNESCO

7.a. Earth Sciences at UNESCO - Missotten

Robert Missotten exclaimed that he was happy that the venue for the 50th Anniversary event was held in Paris and that the IUGS returned to its birthplace. This has provided a great opportunity to interact with the Executive Committee members.

UNESCO has a new Director General and a new Assistant Director General Gretchen Kolangi who performed research in MIT and UC produced first draft for activities and programs for 2012 & 2013. Gretchen has placed great emphasis on earth science and highlighted a number of programs including IUGS. 2012 - International year of Astronomy. Listed below are some UNESCO highlights:

- UNESCO is celebrating the International Year of Chemistry
- Common interest with IUGS in Sustainable Development
- Man & Biosphere
- Climate
- UNESCO Earth Science sector combined with IOC and Engineering for the first ever United Nations session on Geoengineering.
- Hazards Mitigation
- Transboundary Aquifers – UN is using UNESCO as an expert and there is a need of advise.
- Carbon sequestration
- Special mining program -- UNESCO held the first meeting
- Evolution of Glaciers – volume of water in flood zone
- Karst studies
- Rio + 20 in 2012 – Sustainable Development and Green Economy
- Next year will be the 40th Anniversary of IGCP

UNESCO is active in the global science initiative and looks forward to further discussions during this IUGS meeting.

There is interest in the UN system – major conference Rio+20 which is focused on sustainable development and the Economy. Coordination of efforts was discussed and Robert suggested working with UNESCO Nairobi Office which would provide a natural cooperative effort. Need to work with Africa as a whole and not just south of the Sahara.

Comments by EC:

- Science Sector is being restructured and UNESCO will contact the IUGS when the structure is set to move forward.
- The Committee THANKED Robert Missotten for the report on Earth Sciences at UNESCO and AGREED on the following actions:

ACTION ITEM #12: President Alberto RICCARDI will approach the GeoUnions encouraging our collective participation in the pending Green Energy Meeting in Rio.

ACTION ITEM #43: President Alberto RICCARDI to approach Robert MISSOTTEN to find out what they want to do for engineering geology in IGCP and then the President will approach IAEG to see if they can become involved.

7.b. IUGS-UNESCO International Geoscience Programme (IGCP)

7.b.1. Report on IGCP - Patzak – Bobrowsky

During the period 2010/11 the International Geoscience Programme continued to operate under the recently defined focus of five thematic funding targets: 1) Resources; 2) Global Change and Evolution of Life; 3) Geohazards; 4) Water; and 5) Deep Earth. Each theme comprised between 6 and 9 virtual specialists including one “theme leader” charged with evaluating existing and new in-coming research proposals.

In 2010 there were a total of 31 active IGCP projects (21 of these obtained funding and the remaining 10 projects with no funding but on extended term status). Average support per project was about \$8600 USD. This compares favourably to the highest number of projects supported in the previous 20 years when 56 projects were considered active in 1993. Similarly the highest level of average funding prior to 2010 occurred in 2002 when projects received an average \$8000 USD each. At the moment the IGCP is working under the conditions recommended by IUGS that is maintaining about 30 active projects per year.

With respect to financial support, last year UNESCO provided \$76,500 USD compared to \$84,000 USD from IUGS and extraordinary funding contribution of \$20,000 USD from the Government of China. Total support for the projects was therefore on the order of \$180,500 USD. In 2011 and for the next few years additional extraordinary funding of \$ 100 K will be received from the Government of Sweden.

A total of 18 new project proposals were received in late 2010 by the IGCP Scientific Board for evaluation as potential project additions starting in 2011. Results of the IGCP Scientific Board deliberations were not yet available at the time of this report submission so no report is available on the number of projects to be supported for the period 2011-12.

The IGCP Bureau will meet on Friday 18 February to assign funding according to the recommendations of the IGCP Scientific Board deliberations.

All 31 active projects are currently listed on the IUGS website under "LINKS" with the appropriate hyperlinks to the individual project websites were available.

IGCP proposes to fund 6 proposals this year and hopes that a few more countries become involved including Africa and Bolivia. The stimulation and revitalization of the IGCP committee is on going. IGCP is seeking additional corresponding board members.

The work on guidelines for reviewers will be provided by Ian Stewart. The website – has hyperlinks to all new projects and this is being updated.

The Committee ACCEPTED the IGCP report and AGREED on the following actions:

ACTION ITEM #13: All IUGS EC members should recommend potential new members as scientific specialists to the virtual scientific board of IGCP sending details of candidates to the Secretary General before 1 July 2011.

ACTION ITEM #56: The EC to review the content of the brochure IGCP and see if there is something to add and/or change.

7.c. Geoparks and Geoheritage

7.c.1. Global Geopark Network (GGN) - Patzak - Simpson

The Global Geopark Network was created seven years ago. All proposal submissions will be evaluated at the Global Geoparks Conference in Norway in September 2011. Colin expressed sincere appreciation to the IUGS for supporting this effort and seeing that it continues, it is off to a good start.

The Committee THANKED Margarete Patzak and Colin Simpson for the report on GGN

7.c.1.a. Geoparks in Africa – Ezzoura Errami

Ezzoura provided the group with a power point presentation.

The African Geopark Network was launched in May of 2009, for the preservation of Geoheritage. Ezzoura provided an AGN logo and noted there are currently 32 participant countries. J.M. Frias commented that

AGN is important in the context. Eldridge Moores had met with the AAWG group and was very impressed with their work and accomplishments.

The Committee THANKED Ezzoura Errami for the report on Geoparks in Africa

7.c.2. Geoheritage - Bobrowsky

Peter summarized the report and major accomplishments of the IUGS Geological Heritage Beijing Office:

- Comparative study of the Grand Canyon National Park and the China Yuntaishan Geopark.
- Promotion of Geotourism in Beijing
- Performed Periodic Reviews of Chinese World Geoparks
- Assisted in the maintenance of the GEOPARK Network

Peter Bobrowsky suggested that this group now be moved under Task Group on Geoheritage..

The Committee ACCEPTED the report of the Geological Heritage Beijing Office and AGREED on the following action:

ACTION ITEM #50: President Alberto RICCARDI to contact Zhao XUN regarding the relationship between the Beijing Geoheritage Office and the new GeoHeritage Task Group.

7.d. IUGS-UNESCO Programme on Geological Application on Remote sensing (GARS) - Hill

The GARS Programme contributes to advancement of geological research and developing understanding of the earth system in relevance to population welfare. Since 2005, the focus has been on geohazards and groundwater issues. GARS continues to enhance the visibility of earth science amongst the space agencies, inter-governmental UN organizations and world research programmes that sponsor the Integrated Global Observing Strategy (IGOS) and are GEO members. GARS is sponsored and funded jointly by IUGS and the UNESCO. Programme membership includes 40 institutes from 28 countries, mostly from the developing world.

The GARS Programme focuses on 3 strategic issues identified by IUGS:

1. Reducing vulnerability of communities at risk to natural hazards (GEO Geohazard Theme)
2. Managing resources in a sustainable and environmentally sound way (Groundwater Initiative)
3. Contributing to understanding of global environmental change (Both programme elements)

Summary of 2010 Activities and Accomplishments:

- On the Geohazards Theme, a workshop was held January 2010 at UNESCO to develop a Roadmap for the Group on Earth Observation's (GEO) Geohazard Community of Practice (GHCP)
- Contribution to Tasks under the Disasters Societal Benefit Area (SBA), toward Roadmap implementation.
- ICSU attended the GHCP Roadmap Workshop in Paris 2010 and IUGS attend the GEO Plenary meeting in China November 2010 as a Participating Organisation.
- Interactions with the Global Earthquake Model at the Roadmap Workshop in Paris in January 2010 and in London on September 2010.
- The IGOS Geohazards Super-Sites initiative on natural hazards laboratories (operational in 2010) provided data for the Haiti and Chile earthquakes and developed an ongoing relationship with the GEO Secretariat.
- On Groundwater Theme, the Deltares-led proposal on groundwater observations in Africa was selected for final proposal stage at GEO and is expected to be funded in 2011.
- Many presentations including: several GEO meetings, SBSM, ISPRS, and Geological Remote Sensing Group Annual Conference
- Project Proposal to GEO in May 2010 accepted for Financial Matching: *Groundwater.net for Africa: A regional Groundwater Monitoring Network in Africa*
- Proposal to fund GHCP submitted to the European COST Programme but was not funded

Continued problems to progression:

1. IUGS funding for the GARS Programme was again received late due to a communication problems between IUGS and the British Geological Survey (BGS).
2. The Groundwater Theme remained less active than Geohazards due to lack of funding.
3. The closure of the IGOS Geohazard Executive Bureau in 2008 has reduced the support for the GEO Geohazards Community of Practice (GHCP). IUGS/UNESCO funds enabled some efforts during 2010 but not at a full time office. GHCP is looking at other funding options.

Summary brief of 2010 expenditures:

- GHCP Roadmap Workshop, UNESCO, Paris, January 2010
- GEO Science & Technology Committee Disasters SBA Review, Turkey March 2010
- GHCP COST Proposal Preparation Workshop, London, September 2010
- GARS Participation in various GEO Meetings

2011 Work Plan and Goals:

- Implementation of the GHCP Roadmap and implementation of the GARS GEO Groundwater project.
- GHCP Workshop in Antalya, Turkey
- Revision of the GEO Work Plan for 2012-15 via the GEO European Projects Workshop in London February 2011, and GEO Work Plan Symposium in Geneva May 2011.
- Secure funding to support GHCP activities and networking
- With GEO, identify funding agencies for the approved project proposal *Groundwater.net for Africa: A regional Groundwater Monitoring Network in Africa*
- GARS has also outlined its work plan for the next 5 years

2011 Budget

Activity	Purpose	Amount
GARS Meetings	Support for the members of GARS-IGOS Joint Committee	US \$2000
GEO	Attendance at 2011 GEO Committees/Plenary	US \$2000
Working Groups	Support for international expert Workshop participation	US \$2000
Total		US\$6000

GARS is asking for \$6,000 US from IUGS for 2011.

Note: The report was excellent. GARS is steered by 45 participating agencies. The power point slides are available at: www.geohazcop.org

The Committee ACCEPTED the GARS report and AGREED on the following action:

ACTION ITEM #52: President Alberto RICCARDI to request clarification (statutes, terms of reference, membership list, website, publications, etc.) from GARS with pending approval to fund by IUGS.

7.e. IUGS-UNESCO Task Group on Global Workforce (TGGW) - presented by Leahy for Keane

The Taskforce met approximately four (4) times in 2010 with the American Geological Institute (AGI) leading the discussions. A challenge has been limited participation and information from invited members from Russia, Latin America and SE Asia. AGI has continued to engage the broader community into discussions regarding the global flow of geoscientists and common issues. Efforts were made to engage participation at conferences such as EGU, GeoSciEdIV, and AGU through presentations and sponsored sessions, and by directly engaging the Young Earth Scientists Network (YES). YES has greatly expanded the scope and information base, and been a major contributor towards evaluating the supply-side of global geoscience talent.

General Conclusions:

- 1) The definition of geosciences is extremely varied globally and analyses need to be rectified with this in mind.
- 2) Major producers of geosciences talent such as: United States, China, Europe, Russia, have local demand overtaking local supply so cannot be seen as near-term suppliers of global talent.
- 3) Nationality of a geoscientist is a problem.
- 4) Primary and secondary geoscience education is at levels of risk globally and is being downscaled in most primary and secondary education institutions.
- 5) Low enrollments and high demand for graduates is leading to critical capacity building problems for the long-term. In most countries, the faculty staff is retiring rapidly and replacement is very difficult, leading to some global shortages in an academic capacity, especially in the minerals/mining fields. Likewise, in countries like the United States where geoscience enrollment is growing, but academia has little capacity to train substantial additional students.

Next steps are to proactively engage Latin America, SE Asia, and Russia. An expansion of the documentation to reflect material received from Europe and Canada. The information will be combined, reviewed to establish key conclusions, critique of the data, a formal document regarding the state of the global workforce, and recommended forward actions.

IUGS provided \$1,000 to AGI for the taskforce program. To date, AGI has charged \$250 to support the YES review of the global database of geosciences academic units. Other expenses to-date have been supported by AGI and taskforce members. The remaining grant funds are expected to support engagement of individuals in the regions identified as lacking information. No additional IUGS funds are being requested in 2011.

Next steps are to proactively engage Latin America, SE Asia, and Russia. An expansion of the documentation to reflect material received from Europe and Canada. The information will be combined, reviewed to establish key conclusions, critique of the data, a formal document regarding the state of the global workforce, and recommended forward actions.

Note: Abera Mogessie (GSAf) will join AGI's effort. Suggestion was made to form a membership with YES and to have Sarah Gaines and Lela Gonzalez serve as representatives. Pat Leahy will follow through on that suggestion.

The Committee ACCEPTED the report of the Task Group on Global Workforce and AGREED on the following actions:

ACTION ITEM #14: All of the IUGS EC to ask their national representatives to provide formal contacts and consider participation in the Task Group on Global Geoscience Workforce (TGGGW).

ACTION ITEM #15: The Task Group on Global Geoscience Workforce Chair Chris KEENE to develop and promote a simple website for this activity.

7.f. Earth Sciences Education Initiative on Africa - Gaines

A power point presentation was given by Sarah Gaines.

Major points covered:

- Mining Initiatives at meeting in Nairobi
- Working closely with colleagues in Nairobi and Cairo UNESCO Offices.
- Idea evolved from IYPE and launched in 2008.
- Initially scoping workshops were held to determine the issues and the role that UNESCO would play.
- Regional representation and language representatives attended workshops and included: Egypt, Angola, South Africa, and The Congo
- Geology as in Earth science system
- Website with reports

Common recommendations:

- Multidisciplinary approach
- Education at Secondary level
- Connection to industry and academia
- Exchange of information between teacher student

Outreach:

- 2011 will hopefully be the year that GEOPARKS to blooms
- YES important player in Africa
- Sharing information importance

Working well:

- IGCP-470
- IGCP – NC, IYPE NC, ESEAF
- GEOPARKS in Africa most important part of the picture

Highlights:

- Network of African ES Institutions
- Geological Map Training
- Early Education in ES-Teaching early goes to the community – secondary level may not go home and reach the entire community.

Aberra – commented that this has been discussed before and thanks all for it. There is a need for encouragement and more coordination. Invite scholars representing schools in areas to keep informed and promote and improve their knowledge. Provide planned excursions and increase the awareness in ES and involve ES in the industries of Africa.

Riccardi – UNESCO and IUGS are partners in this initiative and so more feedback and coordination was expected in providing formal support with UNESCO. It is needed better response and support from UNESCO. IUGS receives requests to do things in Africa and wants to coordinate with UNESCO to initiate projects; however, not much coordination has been established. Things are moving well and we now need to do things in Africa. To do this, coordination is essential; it is necessary to acquire facts and move forward.

Other comments pointed to: A planned meeting is scheduled in October to bring partners together and to raise funds – coordination is two-party. Need to move forward – welcome suggestions on collaboration. Need to know the role that GSAf takes in communicating with colleagues. ORGS need to accept GSAF as a society. Work on roles and opportunities to participate – as partners participate with funding – to have common program and work on funding issues during that program. People from Africa need to benefit from this effort. More collaboration in the following areas: 1. Standards, 2 GeoEducation, and 3. Museums.

The Committee THANKED Sarah Gaines for the report on the Earth Sciences Education Initiative on Africa

8. REPORTS ON OTHER PROGRAMMES

8.a. IUGS-IUCN (World Conservation Union) geological World Heritage - Badman/Bobrowsky

Partnership on World Heritage Site Evaluation

This report summarizes the fourth year of cooperation between the IUGS and the IUCN on the topic of evaluating candidate applications for World Heritage status. In 2006 the IUGS formally accepted (dated 13 June 2006 - letter on file with the Secretariat) an agreement for cooperation (dated 6 June 2006 – on file with the Secretariat) between The World Conservation Union (IUCN) and the International Union of Geological Sciences (IUGS) The primary element for this partnership involved the technical collaboration of geoscientists, through the auspices of IUGS, to provide volunteer services (desk top evaluation of

applications proposed for World Heritage site designation) to the IUCN. This effort between IUGS and IUCN complements a similar agreement and working arrangement also in existence between IUCN and the IAG (International Association of Geomorphologists).

Working Principles

Starting in 2007 the IUGS invited individuals within its community to participate in an exercise involving desk-top evaluation of the “natural” component of various candidate sites that have been submitted to IUCN for World Heritage site designation by various nations. The IUGS invitation to participate is open to all individuals through the IUGS E-Bulletin distribution list. The “call for volunteers” was issued annually for 3 years in the period June-July-August. A number of individuals subsequently responded directly to the IUGS Secretary General with their expression of interest. As a result a database of “volunteers” was constructed (now on file with the Secretariat) and is accessed in the process.

Normally, the IUCN provides the IUGS Secretary General with a list of candidate World Heritage sites that warrant geosciences evaluation in the fall. At the same time, the IUCN requests the IUGS to table the names of 10 individual evaluators per nominated candidate site. In 2010 the IUCN submitted their request to IUGS on 1 October. The Secretary General assessed the database and proposed 10 potential volunteers per site for the six sites for a total of 60 individuals. The names and contacts were forwarded directly to IUCN who subsequently managed the entire evaluation process internally and under strict confidentiality.

The identity of the evaluators and the evaluation reports (deadline for reports was 19 November 2010) are treated under strict confidence. IUCN internally processed all the reports received from IUGS evaluators collectively with all the remaining candidate submissions and provided their own recommendations for World Heritage site designation to the WH Committee. IUCN provided acknowledgement of the inputs of IUGS in its report presented to the World Heritage Committee, including display of the logo of IUGS in its presentation, and has expressed its appreciation for the continued collaboration with IUGS. IUCN provided a confidential assessment of the review process to the IUGS Secretary General late in 2010 following their assessment of the responses.

This mutual association benefits the IUGS considerably in terms of visibility and relevancy to the scientific community. The efforts and collaborative involvement of the IUGS are duly acknowledged and referenced by IUCN in all of their formal reporting. The IUGS receives considerable visibility and gratitude for its role in the World Heritage site designation process.

Summary of Results

The IUGS Secretary General relies on a current database of about 1000 individuals as a pool to draw names for IUCN evaluation. The database resides with the Secretariat.

For comments on previous evaluation periods please refer to the IUGS-IUCN report in the Minutes of the 61st Executive Committee meeting (Paris, France), February 2010.

For the 2010-2011 review period the IUCN received 13 applications (cultural, natural and mixed sites) for which they requested help from IUGS with six proposals. IUGS provided the names of 60 individuals of which 24 provided a useful response. The results of the candidate site evaluations will not be known until mid 2011 when the WH committee results are made public. The actual response details remain confidential.

IUCN have noted that in 2011 they could facilitate the process further through earlier distribution of requests for reviewers, and will also seek to provide news of the results of the inscriptions when they are available, noting that the responsibility for posting news on inscriptions is the responsibility of UNESCO, as the secretariat to the World Heritage Convention.

For the next period of evaluation IUCN has been informed that the IUGS Task Group on GeoHeritage should be consulted instead of the Secretary General.

The IUGS Secretary General gratefully acknowledges the efforts and exceptional collaboration of IUCN staff Tim Badman and Remco van Merm.

Special Requests

As reported last year IUCN requested additional services from IUGS in 2009 for an assessment of a policy document on volcanoes and volcanic landscapes (see IUGS Minutes of the 61st EC meeting). There were no special requests in 2010.

The Committee ACCEPTED the report on the IUGS-IUCN partnership on World Heritage Site Evaluation and AGREED on the following actions:

ACTION ITEM #9: Councillor Wesley HILL to act as IUGS EC official liaison for IUCN related activities and with the Task Group on Geoheritage.

ACTION ITEM #10: Secretary General Peter BOBROWSKY to inform the IUCN that IUGS EC requires that the IUCN acknowledges and responds past evaluation to IUGS reviewers.

8.b. IUGS-IUPAC Task Group on Isotopic Geology (TGIG) - Tandon

The IUGS-IUPAC Task Group on Isotopic Geology continued its work and two recommendations on specific topics it submitted were approved by both organizations.

Since the last report on the year 2009, one meeting (Brussels, 28-29 July 2010) and intensive e-mail communications among various members were held to discuss various technical details of the project. The IUPAC-IUGS joint Task Group "Isotopes in Geosciences", TGIG, has evaluated the published measurement results for decay constants (i.e. half-lives) of ^{238}U , ^{235}U and ^{234}U . A measurement result is generally expressed as a single measured quantity value and a measurement uncertainty (VIM, 2008, entry 2.9). A significant part of the present evaluation was the assessment, following strict metrological criteria (GUM, 2008), of the measurement uncertainties.

The Task Group recommends:

1. To re-evaluate the uncertainty budget (VIM, 2008, entry 2.33) of the ^{238}U half-life, which includes uncertainty components associated with measurements of isotope number ratios and evaluations of systematic effects in these measurements, to $4.468 \pm 0.005 \text{ Ga}$ (Jaffey et al., 1971; Schön et al., 2004; Mattinson, 2010).
2. That new measurements of the ^{238}U half-life be performed by $\pm$ -counting with a target measurement uncertainty of $\frac{3}{4}$ 0.1 % relative. Because uncertainty contributions from secular ^{234}U (dis)equilibrium of natural samples are, at the time of writing, substantially higher (see item 6 below), the most promising strategy appears to be counting of synthesized samples having an isotope abundance $N(^{238}\text{U})/N(\text{U})$ with a sufficiently small associated measurement uncertainty (GUM, 2008).
3. That the value of 4.4683 Ga be defined as a provisional reference value for the ^{238}U half-life (i.e., $t_{238} = 0.155125 \text{ Ga}^{-1}$) for comparative purposes with other isotopic geochronometers (the number of digits quoted here is not to be interpreted as an endorsement of any uncertainty).
4. That any half-life value obtained by calculation which includes the normalization against the ^{238}U half-life as reference value should be called " ^{238}U half-life-normalized".
5. That every ^{238}U half-life-normalized half-life value should be accompanied by an uncertainty component associated with the normalization. In particular, a ^{238}U half-life-normalized value for the ^{235}U half-life based on geological sample intercomparisons must include uncertainty contributions as detailed in Appendix 1.
6. To accept as provisional ^{238}U half-life-normalized value for the ^{235}U half-life $(703.20 \pm 0.41) \text{ Ma}$ (2 s error), corresponding to $t_{235} = (0.98571 \pm 0.00057) \text{ Ga}^{-1}$.
7. to accept the ^{238}U half-life-normalized value for the ^{234}U half-life proposed by Cheng et al. (2000),

namely (245.25 ± 1.20) ka (2 s uncertainty), as their work follows strict traceability protocols, had the explicit goal of ensuring the radioactive equilibrium of natural samples, and was independent from any assumption on the natural $N(235\text{U})/N(238\text{U})$ number-ratio.

Formal publication of the U half-lives recommendation is ripe and the official journals of the IUGS and IUPAC are being considered.

Additional recommendation dealing with the ^{40}K and ^{87}Rb half-lives were considered, but more work was found to be needed before an official endorsement was possible.

It has been suggested that a continuation of the inter-Union Task Group to deal with the additional long-lived nuclide half-lives be proposed to IUPAC and IUGS to complete the originally proposed work effort.

IUPAC members and IUGS members will both submit a proposal for a two-year prolongation, seeking a financial support of 4950 US\$ each from IUGS and IUPAC.

The Committee ACCEPTED the report on the Task Group on Isotopic Geology and AGREED on the following action:

ACTION ITEM #11: Councillor Sampat Kumar TANDON to write the Task Group on Isotopic Geology (TGIG) requesting that they submit a formal request to the IUGS EC to approve any recommendation and change before publishing them.

8.c. OneGeology - Riccardi

The IUGS has been formally involved with OneGeology since October 2009, when its President was kindly invited to become an ex-officio member on the OneGeology Steering Group.

Since then IUGS main goal in relation to OneGeology has been to support not only its interaction with the IUGS Commission on the Management & Application of Geoscience Information (CGI), but also with other IUGS bodies and with the 34th International Geological Congress (Brisbane 2012).

As one of the main contributions IUGS could provide to OneGeology is in the field of standards in the geosciences it has been considered a priority to establish a close interaction of OneGeology with the IUGS Commission on Stratigraphy (ICS) – a body working in stratigraphic standards which are basic to geological mapping. Here it is expected an OneGeology-ICS interaction similar to the one existing between ICS and the Commission of the Geological Map of the World (CGMW).

At the same time the IUGS has become involved in a larger initiative on geological standards that has a direct bearing on OneGeology. Thus IUGS has identified as priority tasks (1) to make an inventory of all geostandards sponsored by IUGS in the past; (2) to identify existing geostandards which could be endorsed by IUGS; and 3) to propose new geostandards for future development. All these tasks are well underway. It is expected that all these developments will result in one or several sessions on geostandards to be organized for the 34th International Geological Congress (Brisbane 2012), with an active participation of OneGeology.

During the last year the OneGeology Steering Group met at the Geological and Nuclear Sciences (GNS), Lower Hutt, Wellington, New Zealand, on 15-16 April 2010 and held a teleconference on 6 July 2010. The IUGS President sent a written report to the first meeting and participated in the second.

There it was confirmed that BGS and BRGM will continue to provide supporting funding (secretariat and portal maintenance/development) until at least the next milestone for OneGeology, the International Geological Congress (IGC) to be held in Brisbane, Australia in 2012. In an update on the technical aspects of progress it has been reported that the exchange of know-how and skills has, and continues to be hugely successful, new Cookbooks have been published and open technical meetings and seminars have been held, the 'buddy system' has been used by eight nations to date by assisting to serve data, and routes of contact for help and support are via the web, email helpdesk and telephone.

The OneGeology portal has been tested to cope with new data content. BGS has provided nationwide coverage of 1:50,000 scale map data which has proven that all data scales can be integrated from a technical point of view. The new 1:50M scale CGMW map of structural elements has been added. Work is also progressing on options to select by 'region' rather than country.

In an update on the global profile and awareness of OneGeology it has been reported that huge media interest was generated at the IGC in 2008 and current communications and publicity uses the web, newsletters, presentations, abstracts, articles, twitter and blogs, and the release of the 1Gkids web pages.

It must be noticed that OneGeology has established strong linkages with over ten regional and global organizations who have pledged their support. OneGeology has become more closely involved with GEO/GEOSS (Global Earth Observations), having been officially recognized as a 'subtask' and represented at a number of GEO/GEOSS meetings. It is regarded by GEO/GEOSS as the provider of the geological map data later for them. It is also providing inputs to a variety of GEO/GEOSS Committees and Tasks and is considered as an example of good practice in data access.

OneGeology and Geoparks were to set up a MoU and a series of new web links and pages. It is considered that that Geoparks is clearly linked to OneGeology outreach and that the role for information on geological maps could be an important part of the development of the OneGeology portal. It is recognized that this will move OneGeology away from the 'only geology map data' role but it has been agreed that this is an appropriate outreach activity and beneficial to OneGeology and Geoparks.

Additionally, closer links with Geoparks and the YES Network (Young Earth Scientist) have been established.

Finally, the OneGeology Steering Group, with the participation of the IUGS President, has recently approved: 1) to adopt a 7 continent model for OneGeology Steering Group representation, in which the 7 "continents" are renamed "Classes" (the continents the 7 classes equate to are: Class I – Africa, Class II – Eurasia; Class III – Asia, Class IV – Oceania, Class V – North America, Class VI – South America, and Class VII – Europe); 2) that OneGeology will become a non-for-profit legal entity, "OneGeology Limited" (UK Charity Company Limited by Guarantee); the first Board of Directors will consist of a minimum of 12 and will include the Steering Group, and the whole transitional process will last approximately 20 months, i.e. until the next IGC.

The next meeting of the OneGeology Steering Group will be held at the Geological Survey of Japan, on 6-7 April 2011.

In review the inventory of geological standards is at the heart of One-Geology with language that allows for standardization of maps. IUGS developed standards and is looking at existing geologic standards to be endorsed by IUGS. Also identified are new potential geostandards and IUGS is positioned in a way that could fill a gap.

The Committee ACCEPTED the report on OneGeology

8.d. Group on Earth Observations (GEO) –GEOSS - Riccardi

The IUGS was recognized as a GEO Participating Organization at the GEO-VI Plenary session in Washington DC, on 17 November 2009. IUGS representatives, i.e. GEO Principal and GEO Principal Alternate are, respectively, IUGS President, Alberto C. Riccardi, and IUGS Councilor, Wesley Hill.

The GEO is a voluntary partnership of governments and international organizations. Membership in GEO is open to all member States of the United Nations and to the European Commission. GEO Members currently include 80 Governments, the European Commission, and an additional 58 intergovernmental, international, and regional organizations, with a mandate in Earth observation or related issues. Participating Organizations include, among others, ICSU and UNESCO (including the UNESCO-IUGS joint program GARS), as well as some ICSU GeoUnions. The GEO is coordinating international efforts to build a Global Observation System of Systems (GEOSS), with the aim of constructing a global public infrastructure for

Earth observations that, like the Internet, will consist of a flexible and distributed network that connects users to existing data bases and portals and provides reliable, up-to-date and user friendly information. GEOSS is simultaneously addressing nine areas of critical importance to people and society: Disasters, Health, Energy, Climate, and Biodiversity.

During 2010 IUGS has participated in a number of activities in order to support GEO's work:

1) As decided during the IUGS EC held in Paris on February 22-25 2010, all) all IUGS Commissions (CGI, GEM, COGE,) and Affiliated members were informed on the general goals of GEO/GEOSS and on the 9 Societal Benefit Areas that is addressing (Disasters, Health, Energy, Climate, Biodiversity, Agriculture, Ecosystems, Water, and Weather) through its four permanent committees on Architecture and Data, Science and Technology, User Interface and Capacity Building, and on GEO's request to identify and nominate candidates to various GEO committees, and to inform in which way they could contribute to the tasks of the 2009-2011 GEO Work Plan.

2) A GEOSS Data Sharing Task Force Draft Action Plan (as submitted to the 18th GEO Executive Committee) and Supporting Documents was reviewed and supported by the IUGS in the belief that it will be very beneficial for geosciences around the world.

3) The IUGS agreed with the GEO 2009-2011 Work Plan version submitted for review.

4) IUGS reviewed and supported the draft "GEOSS Data Sharing Action Plan for the implementation of the GEOSS Data Sharing Principles", mentioning specifically OneGeology as an outstanding working example of those principles.

5) The IUGS EC asked the CGI to propose a candidate to be nominated by IUGS to a new Evaluation Team to assess the progress of GEOSS implementation in the areas of Architecture and Data Management, to be carried out between November 2010 and May 2011.

6) The IUGS participated in the Seventh Plenary session of the Group on Earth Observations (GEO-VII), and in the Ministerial Summit, which took place on 3-5 November 2010 at the China National Convention Centre (CNCC), Beijing, with was attended by representatives of 51 countries and 34 Participating Organizations. The Beijing Ministerial Summit offered an opportunity to engage with other global leaders and to shape the international strategy for Earth observation over the next five years.

The Ministerial Summit assessed the GEO's progress over the past five years, evaluated past and future GEOSS implementation, agreed on a Data Sharing Action Plan, and adopted the Beijing Declaration prepared by the GEO 2010 Ministerial Task Force under the guidance of the Executive Committee and in full coordination with the Government of China. There it was agreed to encourage the provision of data and information to emerging GEOSS initiatives, including (i) a global carbon observation and analysis system [, including the Global Forest Observation Initiative,] for addressing mitigation and adaptation to climate change; (ii) the GEO Biodiversity Observation Network for monitoring and preserving biodiversity; and (iii) a global land cover initiative for understanding land use, land-use change and urbanization

At the closing session of the Ministerial Summit the IUGS Past President, Zhang Hongren, on behalf of IUGS President Alberto Riccardi, read a Statement stressing IUGS connection and involvement with the Purposes and activities of GEO and GEOSS. It was also stated that the IUGS is fully supportive of the important efforts being done by the Group on Earth Observations (GEO) to access and apply Earth observations, and fully endorses the GEOSS Data Sharing Principles. Finally it was remarked that the access and application of Earth observations worldwide, and the need to promote education, capacity building, and transference and sharing of scientific knowledge, in order to help reduce the gap between developed and developing countries, and, therefore, to have a more prosperous and equalitarian society.

The Committee ACCEPTED the report on the Group on Earth Observations (GEO)

8.e. IUGS-IUGG International Lithosphere Programme (ILP) - Charvet

ILP is an IUGS and IUGG initiative established by ICSU (International Council of Scientific Unions) in 1980; it is a body of IUGS and IUGG, which are represented in the ILP Bureau. The International Lithosphere Program seeks to elucidate the nature, dynamics, origin and evolution of the lithosphere through international, multidisciplinary geoscience research projects and coordinating committees. It was leading the IYPE theme Deep Earth, published the related special brochure, and supported financially IYPE.

The Bureau met in Vienna, on March 3rd. He supported the proposal, made by Alan Green, Honorary President, of a new mandate for Sierd Cloetingh as President. This proposal has been transferred to IUGS and IUGG. Hans Thybo was elected as a new member. An informal Bureau meeting was held on October 8th, during the Potsdam Conference.

ILP is financed by IUGS and IUGG (each 15,000 USD up to 2008, 5,000 USD from IUGS in 2009, and 10,000 USD in 2010). The ILP Bureau is also raising funds via the national committees and other bodies from the participating countries (e.g. National Science Foundations, Academies). The income in 2010 was: 41,800 US \$ and 12,000 €. The expenditures reached 40,063.83 € and 7,955.20 US \$. A deposit of around 60,000 € is available. The Bureau supports the various Task Forces and Coordinating Committees with an allocation of about 4,000 €. This seed money is mainly used for meetings.

The different Task Forces and Coordinating Committees participated in a lot of scientific events, among others: EGU General Assembly, AGU meetings, Goldschmidt Conference, several workshops, and the 2nd ILP Potsdam Conference.

An important change occurred in the scientific organization; 3 Task Forces ended in 2010. 5 continue, often with a broadened aim; and 5 are new. Also, 2 Coordinating Committees closed, 4 continue, a new one is created on northern Africa, and 2 more are planned.

ILP is without any doubt a very successful program, producing a lot of scientific results, though the Task Forces and Coordinating Committees are unequally active.

The work plan for 2011 includes: Publications in EOS, Episodes and in Earth Science Reviews in preparation, advertising for new support by national science foundations and industry, several sessions at EGU-meeting Vienna, 3 – 8 April 2011, ILP Bureau meeting and ILP-session at EGU in Vienna, joint meeting of TOPO-EUROPE and TOPO-CENTRAL-ASIA in Bishkek, Kyrgyzstan (Central Asian Institute for Applied Geosciences), 7th workshop of Task Force “Sedimentary Basins” in Capetown, South Africa.

The report does not mention any precise funding request.

The Committee ACCEPTED the report on the IUGS-IUGG International Lithosphere Programme (ILP).

9. INTERNATIONAL COUNCIL FOR SCIENCE (ICSU)

9.a. Relations with ICSU - Riccardi

During 2010 IUGS had important interactions with ICSU on topics covering a broad spectrum of scientific and organizational topics:

- 1) Participation in a foresight analysis ICSU conducted on key drivers that may influence international science over the next 20 years.
- 2) Participation in ICSU's survey on activities and experiences in science education
- 3) Participation in a review of the ICSU Regional Office for Asia and the Pacific.
- 4) Participation in a review of the ICSU Regional Office for Latin America and the Caribbean.
- 5) Participation in the Fifth Electronic General Assembly on ICSU's accounts
- 6) Support to the Report by the Ad Hoc Group on Weighted Voting
- 7) Response to the survey “ICSU consultation on Energy”, informing on recent activities of IUGS Commissions and affiliate members, with special reference to activities being developed by AAPG and CPC, and supporting ICSU's potential role in energy.
- 8) Comments on a proposed revision to ICSU statute 5 – the Principle of Universality.
- 9) Participation in a Meeting of ICSU International Scientific Unions held in Paris on 7-8 April 2010. IUGS was represented by Vice President Jacques Charvet. Main theme was « Strengthening the Involvement of Unions in ICSU Activities». Scientific Unions were requested to help in building ICSU's Strategic Plan 2006-2011 which will be presented for final approval at the 30th ICSU's General Assembly in Rome (October 2011). Key priorities for ICSU are: Earth system research, New World Data System, Reviews of the 3 Regional Offices. Topics considered were: Union's

involvement, new models for programme implementation, role of associates, links to funding, finances, weighted voting, grants programme, Unions' role in ICSU's programmes, ICSU's communications, ICSU's Regional Offices.

10) IUGS was awarded an ICSU Grant and gave support to two ICSU grant applications.

11) The 30th General Assembly of ICSU will be held in Rome on 26 – 30 September 2011. It will be attended by the IUGS Bureau.

Additional Comments:

- A General Assembly will be held in Rome in September 2011 where the satellite program will celebrate 50 years – Anniversary. The theme of the meeting is Science Literacy and the Responsibility of Scientists.
- Science literacy is defined as the ability for common people to understand scientific concepts.
- There is difficulty in getting geology into the secondary education within the USA. This may be due to completion with the earth science and other science programs within the pecking order.

The Committee ACCEPTED the report on IUGS Relations with ICSU

9.b. ICSU Committees and IUGS Representation - Bobrowsky

Major points reported on :

- ICSU is requesting no funding
- ICSU has a call out for a number of positions.
- Nominations are filled within the ORG.
- Geounions are working together to fill the open positions.
- In regards to IUGG Gordon McVene proposed that Hazards nominations be sent to committee for consideration.

The Committee ACCEPTED the report on IICSU Committees and IUGS Representation.

9.c. ICSU Grant Programme - Riccardi

During 2010 IUGS has been awarded an ICSU Grant for EUR 20,000 for the project entitled “An international workshop to initiate the circumpolar integration of permafrost microbiological studies” (MicroPerm).

The proposal was submitted by the IUGS on behalf of the International Permafrost Association (IPA). Supporting applicants were the International Union of Geodesy and Geophysics (IUGG), the International Union for Quaternary Research (INQUA), the International Arctic Science Committee (IASC), and the Scientific Committee on Antarctic Research (SCAR), and the Alfred Wegener Institute for Polar and Marine Research (AWI).

The main objectives of MicroPerm are:

- 1) organize a process leading to the establishment of a pan arctic study programme on permafrost microbiology;
- 2) convene a kick-off workshop to gather the leaders in the field of permafrost microbiology and qualify the framework of the programme;
- 3) seek additional endorsement and sponsorship through the supporting applicants to firmly embed the future program in global scientific and observing efforts.

At the same time a 2010 ICSU grant was awarded to a project entitled “Extreme Natural Hazards and Societal Implications (ENHANS)”, lead by the International Union of Geodesy and Geophysics (IUGG), in partnership with IUGS, the International Geographical Union (IGU), the International Society for Photogrammetry and Remote Sensing (ISPRS), the International Union of Theoretical and Applied Mechanics (IUTAM), the Integrated Research on Disaster Risk (IRDR), the American Geophysical Union (AGU) and the UNESCO bodies the Global Ocean Observing System (GOOS) and the Intergovernmental Oceanographic Commission (IOC), together with the ICSU Science Plan for Integrated Research on Disaster

Risk (IRDR), and the ICSU Regional Offices for: Asia & Pacific (ROAP), Latin America and the Caribbean (ROLAC). The principal goals of the ENHANS project are: To improve understanding of critical phenomena associated with extreme natural events and to analyze impacts of the natural hazards on sustainable development of society.

For 2011 IUGS gave support to two ICSU grant applications:

- 1) One of them was lead by the ICSU's Committee on Data for Science and Technology (CODATA), and is entitled "Making Sense of the ICSU Role in Scientific Data For Science and Technology". The goal of this project is to facilitate a coordinated global approach to scientific data and information that ensures equitable access to quality data and information for research, education and informed decision-making. It also responds to the Strategic Plan's call for the development of new inter-union initiatives and for facilitating interactions between scientists from different disciplines and between developing and developed countries. The IUGS Commission on Geoscience Information (CGI) will continue to be a major contributor to the output of this proposed project once accepted. The application was also supported by IAU, IUGG, IUCR, IUPAC, ICSTI.
- 2) The other application, lead by IUGG and entitled "eGY Africa – better Internet connectivity for research and education institutions in Africa. It has been considered that IUGS CGI Commission will be well positioned to assist and collaborate in the project given a long standing history of cooperation with various countries in Africa. Similarly, the existing IUGS – UNESCO partnership and their interest in Africa will further enhance the output of the proposed project. The application was also supported by CODATA and ICSU ROA.

Comments by EC:

Two Grants listed are these grant applications listed on Website? This is a good suggestion and will be taken into consideration.

The Committee ACCEPTED the report on ICSU's Grant Programme and AGREED on the following action:

ACTION ITEM #16: Secretary General Peter BOBROWSKY to add the successful ICSU grants to the IUGS website.

9.d. Relations with other ICSU Unions (GeoUnions) - Riccardi

The eight unions: IUGS, IUGG, IGU, IUSS, INQUA, ISPRS, IAU and URSI, which comprise the informal GeoUnions consortium within ICSU try to interact and meet periodically to address scientific and geo-political issues which are shared by all of the Unions. Normally the President and/or Secretary General of each of the Unions attend the meeting to ensure the concerns of their respective bodies are represented effectively in the discussions.

During 2010 the IUGS participated in a one day meeting of the GeoUnions on April 6, just prior to the triennial all-union meeting arranged by the International Council for Science (ICSU) in Paris, France. At this meeting, where IUGS was represented by Vice President Jacques Charvet and Secretary General Peter Bobrowsky, much of the discussion centred on the termination of the IYPE and the transition to the new Planet Earth Initiative and the launching of a possible Global Geoscience Initiative. Other topics of discussion included: current activities of each GeoUnion, science topics being developed by the GeoUnions, relationships of the GeoUnions with ICSU, collective work in Africa, cooperation with UNESCO, success and failures of the ICSU regional offices, and the potential to support a new UN International Year of Global Understanding (tabled by IGU). Following a decision taken at the 2010 annual meeting of the IUGS EC (Paris, 22-25 February), where some representatives of the GeoUnions were present, IUGS President sent a general proposal to develop a common GeoUnion strategic plan, but consideration of the issue was postponed until a more complete proposal is prepared. The GeoUnions agreed in a common declaration on "Natural Hazards, Risks and Disasters", based in previous documents produced by IUGS and IUGG which were circulated immediately after the Haiti earthquake.

On 9 April 2010 some representatives of the GeoUnions met with Robert Missotten, Chief, Global Earth Observation Section, Division of Ecological and Earth Sciences. IUGS was represented by Vice President

Jacques Charvet. Discussions covered different topics: main coverage of the different unions; related main activities of UNESCO (IGCP, oceanography, water, transboundary aquifers, initiative on Africa; UNESCO's interest on the development of geo-engineering, climatic change, and CO₂ sequestration). Some changes being implemented in UNESCO were mentioned, e.g. Advisory Board composed of high level scientists that support cooperation with Unions. The possibility of having 1 or 2 representatives of the GeoUnions in the Board of Directors of UNESCO was also mentioned. It was agreed that the GeoUnions would support a UNESCO's Initiative on Africa and will discuss among themselves eventual proposals to be presented to UNESCO.

Following two requests received from the IUGS German National Committee on 17 November 2009 and from the EuroGeoSurveys on 19 April 2010, for long-term coordination of IGS and IUGG General Assemblies, with the main objective of reducing scheduling and venue conflicts, the International Geological Congress Committee in its last meeting (Brisbane, June 24-25 2010) decided to propose IUGG the establishment of a working group to consider the issue. Since then the IUGG accepted the proposal.

During 2010 two projects under IUGS and IUGG partnership and with the support of other GeoUnions received grants from ICSU. For 2011 IUGS is participating in two new ICSU Grant applications.

A meeting of the GeoUnions is planned for the end of September 2011, before ICSU's be held in Rome.

The Committee ACCEPTED the report on the IUGS Relations with other ICSU Unions.

10. INTERNATIONAL YEAR OF THE PLANET EARTH (IYPE) LEGACY

IYPE - PEI

President Alberto Riccardi explained in detail the circumstances related the process of termination of the IYPE Co. (see under Agenda Item # 10) and a series of problems related to the IYPE and the Planet Earth Institute (PEI), as the Bank of Angola has questioned the allocation of some money that according to them was given by the Bank of Angola to the PEI but was misused for the IYPE. As a result several legal allegations have been raised by lawyers of the Bank of Angola. At the same time another Planet Earth Institute was created in the UK, with the support of the Bank of Angola. These problems are evaluated by the EC taken into account the EC decision (ACTION ITEM # 62) to evaluate the IUGS – IYPE relationship from a legal view point. In addition and in view of the lack of action by PEI during 2010, it is considered that the allocation approved for PEI in 2010 would be applied to activities to be developed during 2011, and that further decisions on PEI would be taken during 2011 according to future developments.

10.a. Termination of IYPE - deMulder

The IYPE Board (including IUGS representative) decided to terminate this group by June 2010. The process has not been completed although the IYPE Board members were informed that it had been dissolved. Formally the group still exists although there are no tasks being performed. Legally it is not yet disbanded in Delaware, USA. Bobrowsky informed that the previous EC asked for legal advice to a U.S. based lawyer at the time when the IUGS became formally involved in the IYPE Corporation. Riccardi asked the legal report to be circulated to the current EC. Bobrowsky said that perhaps Eldridge Moores, past Vice-President, has a copy.

The Committee ACKNOWLEDGED RECEIPT of the report on the Termination of IYPE and AGREED on the following action:

ACTION ITEM #62: President Alberto RICCARDI to request Past-Vice President E. Moores for text of legal advice to IUGS, produced before IUGS formal involvement in the Board of the International Year of Planet Earth (IYPE).

10.b. After 2009 (PEI) - de Mulder

Notes on the Aftermath of PEI:

- A non-profit ORG was created in October 2010 with activities at the national and international levels – Planet Earth Institute Incorporated. Planet Earth was registered in UK .
- PEI, Incorporated was based in the Netherlands.
- Other firm was alerted that PEI had been established
- Chair, of PEI is Wolfgang Eder.
- PEI moved forward with a board consisting of 4 people.
- IUGS was contacted by a law firm with allegations by the Bank of Angola against the Executive Director of IYPE Ed de Mulder for breach of contract and misuse of account. IUGS is forced to hire a law firm to clarify the issue in relation to the status of IYPE (see above under Item 10.a. Termination of IYPE).

The Committee ACKNOWLEDGED RECEIPT of the report on PEI and AGREED to adopt actions as needed.

10.c. Global Geoscience Initiatives (GGI)– Nickless

Edmund Nickless addresses the meeting in the following terms:

1. Thank you Mr.President. My colleagues and I are grateful for you making space in the agenda to address this meeting.
2. I want to set the scene and then Pat Leahy of AGI and Jack Hess of GSA may wish to add to my comments. There is a fourth colleague, John Ludden of BGS who is unable to be here today but I should acknowledge him as a member of a small group which has been coordinating development of the GGI concept.
3. But to begin at the beginning. The GGI concept has its origin in discussion at a meeting of the IYPE Board in January 2009 when it was agreed to form a scoping group to build on the Tsukuba Declaration with a view to creating a "World Geosciences Forum". That discussion had focused on a review of IYPE achievements, the so-called legacy Items, noting that while the Year had achieved much in terms of outreach activities, regrettably sponsorship monies had not be available to run a complementary science programme. The membership of a core group was identified and the group charged to develop a proposal in consultation with the community.
4. The next stage was a kick-off group comprising of John Ludden (BGS), Tom Beer (IUGG), Nic Bilham (GSL), Ed de Mulder (IYPE), David Dent (IYPE Board), Wolfgang Eder (IYPE Board), Manuel Grande (EGU), Jack Hess (GSA), Pat Leahy (AGI), Robert Missotten (UNESCO), Edmund Nickless (GSL) and Roland Oblerhansli (ILP) met on 16 July 2009 at the Geological Society of London in Burlington House, Piccadilly to discuss whether the concept of the Global Geoscience Initiative is viable with institutional arrangements and the roles and relationships of key organizations (including IYPE recognizing that those activities will draw to a close in June 2010) how working science communities might be engaged in the next steps of the process.
5. The vision of the group developing the GGI proposal is that it should:
 - be inclusive, and involve a geoscience community which is broad both in terms of discipline and nationality
 - have a clear socio-economic context, and global societal relevance
 - focus on a globally significant science theme, and preferably involve global processes
 - attract the support of scientific communities, funding agencies, governments and other institutions in many countries, under the umbrella of UNESCO and the ICSU geoscientific unions
6. It was agreed to process matters through a series of Town Hall meetings which were held at GSA, 20 October 2009 when speakers were
 - Suzette Kimble (US Geological Survey) -There be DRAGONS: Delta Science in the 21st Century
 - Murray Hitzman (Colorado School of Mines) - Critical research challenges in natural resource geosciences for the early 21st century
- John Ludden (British Geological Survey) – Applied Geosciences for Planet Earth

AGU, 17 December 2009 -- the speakers were:

- Donald J Depaolo (University of California/Lawrence Berkeley National Laboratory) - The Grand Research Questions in the Solid-Earth Science
- Mark D Zoback (Stanford University) - Scientific challenges related to energy and the environment
- Marcia K McNutt (USGS) - Challenges and opportunities for research in the oceans

EGU, 4 May 2010 – the speakers were:

- Maarten de Wit (University of Cape Town) - Africa Alive Corridors
- Robert Missotten (UNESCO)-The UNESCO Earth Science Initiatives: a platform for development of Global Geoscience

AGU, meeting of the Americas 11 August 2010 when speakers were

- Michael McPhaden (President!, American Geophysical Union) communicating the science of Climate Change
- Alberto Riccardi (President, IUGS) - Global Research Initiatives in Geosciences and something else
- Jamie Urrutia Fucugauci (The World Academy of Science) - Latin American and Caribbean Science and Technology Cooperation Agency: a proposal

7. As you will see the presentations were varied and 'covered a lot of ground'. In the discussions that followed the presentations speakers raised various points about the importance or otherwise of particular areas of science, of , the need to engage better with legislators, policy matters, the media and the lay public. None one challenged the desirability of a large scale programme that would attract many disciplines and potentially embrace involve geounions.
8. The working group has summarised the discussions under three broad themes
 - Minerals and hydrocarbon resources and their waste products
 - Living with natural hazards
 - Strategic Earth science in Africa through the Africa Alive corridors
9. During the course of development of the Global Geoscience Initiative ICSU has issued a number of papers, most recently a strategic plan, covering the period 2012 - 2017, working parties have been undertaking foresight analysis and there have also been discussions concerning regional environmental change: human action and adaptation with the question "what does it take to meet the Belmont challenge". And there have been meetings of potential funders under the Belmont forum to discuss concerted action and funding of environmental - related research programmes.
10. The Belmont Forum brings together a number of funding agencies and could provide the resource to enable some initiative to go forward.
11. In contrast development of the GGI concept has taken a bottom up approach. We have been anxious to involve the community, to present ideas, to stimulate discussion and to get feedback.
12. In so doing, a concern within the current thinking is to restate the importance of the solid Earth. In much of the current discussion little attention is given to the substrate on which humankind lives, to the solid Earth, to the role of the geosphere, the role of geoscientists and in particular to our contribution as geoscientists we can make to adapting to or mitigating the effects of environmental change.
13. As a community we need to restate the fundamental role of the geosphere from which everything other than humankind is able to farm or fish has to be gathered from the geosphere. For now and the

foreseeable future it is our primary source of energy, the source of minerals and much of our water. The fundamental role of the geosphere to the future of humankind is underappreciated and that might be a focus of the IUGS attention now in providing leadership and in promoting the GGI concept.

14. The purpose of bringing this matter to the attention of the IUGS Executive Committee's to inform them of progress made since the IYPE Board Meeting in London in mid 2009.
- seek their endorsement for the Global Geoscience Concept
 - ask for the assistance of IUGS and in time UNESCO in promoting the idea and taking it forward

Comments:

Spilhaus – It is very important to make connection with the scientists and work together. This is an enormous opportunity – how do we do it? Expressed differently – what we have done in our way of focus – we create violence. Can't wait for someone else to make a move i.e., GSA, AGI, etc. -- well-known for being well recognized education organizations.

Missotten – presented the idea to the IGCP scientific board and they wish to form a resolution which will be finalized in the coming weeks – a thinking process is ongoing. It is essential to work with everyone and look forward to a partnership. This important initiative was taken to the IGCP Board.

Charvet - suggested promoting a proposal and present three things – if this demands interest - little will happen without funding. There is confidence that there will be no shortage of proposals.

Hill – Two organizations -- this is a framework not an organization and is probably five years down the line and then translation comes into play with society and individual roles to follow.

The Committee THANKED Edmund Nickless for this presentation and AGREED to endorse the Global Geoscience Concept, and to assist in promoting the idea and taking it forward once the IGCP Scientific Board arrives to a resolution.

11. PUBLICATIONS, ETC.

11.a. Episodes – Jayananda - Spilhaus

Jayananda mentioned that volume 33 (four issues) of *Episodes* for the year 2010 has been successfully published. The last issue was mailed to all the subscribers and IUGS committee members, adhering and affiliated organizations during last week of January. The impact factor of the Journal has been increased significantly to 2.16. We had some problem regarding the functioning of the web page particularly with respect to server domain. We will be able to solve this problem soon. The number of manuscripts received is also improved (we have received a total of 42 manuscripts during 2010).

With this the publication aspect for the year 2010 is complete and the details of expenditure for the four issues are given below:

Printing and paper	651,002
Postage	654,515
Salaries	323,000
Miscellaneous	75,000
Overhead (20%)	409,326
Total	2,112,843

We have collected approximately a total of **Rs.1,737,120**, the details are given below.

IUGS Grant for publication

We received US\$ 23,000 from IUGS towards publication and distribution of *Episodes* for the year 2010. A grant of US\$2,500 towards distribution of *Episodes* to third world/developing countries was received. But we

are yet to receive the updated mailing list and as such we have not mailed any issues. Also, treasurer IUGS informed us that the grant of \$2500 is for two years. We have discussed this aspect with IUGS Bureau members and they have promised to look into this matter at the EC meeting in Paris. No issues of 2010 have been mailed to UNESCO members

Individual Subscribers

A marginal increase in individual subscription was noticed. A total of 366 individual subscription was collected amounting to \$10,980.

Colour Reproduction and Reprint Charges

We have been charging a nominal rate for colour reproduction charges and US\$ 4 to 5 for a reprint and the authors have to order a minimum of 25 reprints. So far we have collected US\$3000 in this regard.

A total of US\$ 39,480 has been collected which approximates to **Rs.1,73,7120**

Subscription for 2011

We have already started receiving renewal request for the year 2011 and payment to the tune of \$4,000 (USD) has already been received. Our aim for this year is to increase the subscription base in India. If we can get 200 subscriptions in India, then we will be in a good position to meet the financial requirements.

Jayananda noted:

Issues are being published and we have received 43 manuscripts – have not received any manuscripts from GSAF as yet however would be happy to publish those. Jayananda would be happy to work in concert with the Publications Committee. Jayananda is working with Ian Lambert and planning a special IGC issue for March 2012.

Comments:

The journal for Africa is available and will be coordinated with Jayananda. Suggestion made to include these on the IUGS website. Within the next month will receive a proposal from the PC. Glad to know there will be a special issued in March 2012 for the IGC. It is noted that the Impact Factor for a given year (e.g. 2010) reflects the average number of citations received per paper in that journal during the two preceding years (2008, 2009). WC – congratulated Jayananda on excellent job. Episodes is known as a high quality and high impact Journal, however the public is not aware.

The Committee ACCEPTED the report on Episodes and AGREED on the following actions:

ACTION ITEM #17: Episodes Editor MUDLAPPA Jayananda to include the Impact Factor prominently in the future issues of the journal Episodes.

ACTION ITEM #18: President Alberto RICCARDI to send a letter to all members, affiliates, and others inviting them to contribute to the journal Episodes.

ACTION ITEM #19: Episodes Editor MUDLAPPA Jayananda to link Episodes website to the website of the Geological Society of Africa to promote the journal in Africa.

ACTION ITEM #28: The Chair of the PC Fred SPILHAUS and the Publication Committee should provide recommendations to the EC regarding the current and potential future publication and distribution strategy of Episodes.

ACTION ITEM #30: Chair of the Publication Committee Fred SPILHAUS to develop a special section in the journal EPISODES dealing with national highlights for various countries.

Spilhaus, Chair of the Publications Committee presented the following document on the “Process for

Identification and Appointment of the *Episodes* Editorial Panel

The Panel

1 There are 15 to 20 members of the editorial panel, each of whom is appointed for a fixed term. With the recommendation of the Publications Committee, a member may be reappointed for one term. Each year about one-quarter of the positions will be considered for change or reappointment. In this way, the panel has a continuing addition of new ideas while preserving continuity. Members of the panel are selected so as to have a good spread of disciplinary interest, age, and geography. Consideration is also given to assuring expertise in key languages of importance to *Episodes*, such as Russian, Chinese, Spanish, French, Arabic, and English. The role of the editorial panel is to assist the editor in attracting material for *Episodes* and in assuring that the publication meets standards for high quality and interest for the intended audience. The specific terms of reference for the panel are maintained by the Publications Committee (According to recent practice the editor of *Episodes* serves as a member of the Publications Committee. Should that practice change, the *Episodes* editor should participate with the Publications Committee in the maintaining the terms of reference and in the process of identifying members of the editorial panel).

The Process

2. Opportunities to serve on *Episodes* editorial panel are advertised in the Journal, on the journal's and the IUGS web sites, and in the IUGS electronic newsletter. Input is invited from the IUGS Executive Committee, chairs of the discipline-based IUGS committees, and the National Committees and other knowledgeable persons. Individuals to be considered for appointment may be self-nominations or nominations of others. Nominations should include a CV and short statement of why the person would be a good candidate for the panel.

3. The *Episodes* editor provides to the Publications Committee the names of panel members who should be considered for reappointment. These individuals are included in the pool of others to be considered.

4. The IUGS Publications Committee reviews the nominations and prepares a short list of those whose interest will be explored further. If the committee deems that there is not a sufficient list of candidates, it may invite others to be considered. Each person on the short list is approached by a member of the Publications Committee to assure the nominee's willingness to serve if selected and to obtain a statement of interest if that is not already in hand. When there are a sufficient number of qualified candidates, the Publications Committee prepares a ranked list for each opening. For each opening, the committee forwards one name to the IUGS EC for appointment or reappointment. If the EC has concerns about any recommendation, the name(s) will be returned to the Publications Committee for further justification or for a substitute recommendation. Once the EC is satisfied, the President will appoint the new members of the editorial panel for the next term. The appointment letter contains the terms of reference and the term of appointment.

The Committee ACCEPTED the document on "Identification and Appointment of the *Episodes* Editorial Panel report on Episodes"

11.b. Special Publications: Agreement with GSL - Spilhaus

- Geological Society of London – Publish books IUGS produce. There is definitely a cycle to follow regarding publishing books. Present books to GSL if not accepted does not mean it is not good but they may not be the right market for the specific book. Some publications move extremely slow through the system. Sales have been good. Need to promote a more steady stream through GSL and assist with marketing.

Comments:

- Riccardi - What happens if not published with GSL – are there guidelines on where to go first for publishing? If published outside of GSL the IUGS logo could be used if it goes through the

Publications Committee first.

- Nickless – turning down a manuscript does not happen late in the day. Does this fit within the realm of GSL? If it fails they can reconfigure and re-submit. The books published in unison have both GSL and IUGS logos. When a book is written and submitted it is reviewed by both the PC and the GSL. The PC will be working on improving the process.

The Committee ACCEPTED the report on Special Publications and the Agreement with the Geological Society of London

11.c. E-Bulletin - Simpson

The IUGS Bulletin is issued monthly and reaches 12,000 people worldwide. Contact Colin Simpson with news and important information to be distributed. IUGS has been commended on the efficient way the E-Bulletin is distributed. IUGS will publish in the E-bulletin on behalf of affiliate members.

The Committee ACCEPTED the report on the E-Bulletin

11.d. Website – Bobrowsky

Bobrowsky reported that in 2009, during the 60th Executive Committee meeting of IUGS in Sydney, Australia the decision was made to redesign the existing Union website. The Chair of the Publications Committee at the time, Dr. Godfrey Nowlan, secured the services of an outside consulting firm for this contract. Nowlan subsequently had to resign as Chair in the spring of 2009 and the development and launch of the new site was consequently delayed.

In early 2010 the new website was launched and website analytics were started on 11 February 2010. During the 61st Executive Committee meeting of IUGS in Paris, France the decision was made to have the Secretary General of the Union manage the daily administration and up keep of the site.

Since the official launch modification, additions, corrections and other tasks related to Union activities (new people, commissions, activities, links, affiliates, etc.) have been duly processed by the Secretary General. For instance, a total of 512 separate conference events have been registered in the Calendar Section of the IUGS website alone.

In June 2010 during an inter-congress meeting of the IGCC in Brisbane, Australia, the decision was made to facilitate the permanent transfer of pre-existing and pending IGC websites to the Union website as a sort of archive service. Both the 32nd and 33rd IGC websites have now been transferred from their original hosts and are accessible on the IUGS website.

Total expenditures in 2010 for outside website programming were on the order of 2254 Euro.

Statistical analysis for the 12 month period 9 February 2010 to 9 February 2011 of the new site indicates the following details:

- 29,693 site visits
- 23,130 visitors
- 78,130 page views
- 2.63 average pageviews
- 81 average hits per day
- 164 countries used the site
- 88 languages accessed the site
- Top 3 country users: USA, Brazil and Italy
- Site access: 49% search engines, 31% referring sites and 20% direct traffic
- Top 3 popular contents: homepage, directory and calendar

The website is now functioning effectively and properly, and is an extremely popular and useful source of information. The IUGS Website is populated and updated on a daily basis. Bobrowsky recommended that the

EC set aside \$3,000 (USD) for future additions to the website.

Comments:

- Spilhaus – Publications Committee would like a spot for field trip guides.
- Ezzoura – Felt she had much closer communications than before.
- Charvet – Two points 1) how to correspond on the site and 2) separate from Norway website. People are looking for lists say of adhering bodies and now there are active links. Suggest compiling a list of contacts requesting from IUGS bodies and send to Peter for website.
- Ezzoura – ensure that the contacting committee responds from website and it is important to maintain the WIKIPEDIA site.
- Lambert – was concerned with outdated material existing on website. Need to ensure that Peter is made aware of any mistakes.
- Riccardi – First pointed out that it is necessary to clarify and modify some points of the report: The decision to redesign the website was not adopted at the 2009 EC meeting in Sydney. In that meeting several proposals from EC members on a possible host institution requested by the IUGS President were discussed. As a result it was only considered the possibility that the IUGS website could be managed together with the website of the 34th IGC. On March 2009 the IUGS President requested Godfrey Nowlan, then Chair of the Publications Committee, if he could provide an estimate of the cost involved in updating and making more user-friendly the website. On April 3rd, 2009 Godfrey Nowlan sent an estimated cost provided by the same company that had provided the estimate cost of editing and printing IUGS brochures and flyers. Moreover, He suggested that the website updating should be addressed at the same time as the brochure so that the design aspects were coordinated. On May 2009 an IUGS Adhering Member complained on the fact that the website was not being updated since March 2009. Answering the IUGS President request Bobrowsky informed that the website was not being updated as the Geological Survey of Canada was not providing the money he used for hiring a technician to do that job. On that basis on May 8th, 2009 the IUGS President proposed to update the website accepting the proposal made by the PC Chair. Moreover, he also proposed that the host institution could be in the President's institution and the webmaster a person working there. The proposal was accepted by a majority of the EC. However, following a series of considerations made by the Secretary General on May 12, most EC members (2/3) changed their opinions with regard to the webmaster and host institution but without a definite proposal. On that basis on May 23rd the IUGS President asked Godfrey Nowlan to proceed with the updating of the website. To that effect on 17 June 2009 the PC Chair, on behalf of IUGS, signed an agreement with a Canadian company, according to which the redesign was supposed to be completed for August 31 2009. The agreement was signed by Nowlan before his resignation as PC Chair became effective on June 30 2009; the delay on the launching of the website (which became active on January 12 2010) was not related to the resignation of the Godfrey Nowlan.
- Secondly with regard to WIKIPEDIA and the information it contains on IUGS and its bodies, Riccardi Pointed out that the need to update it was circulated to the EC by Anne Liinamaa-Dehls, then at the IUGS Permanent Secretariat, on 6 March 2009. On that basis on 2 June 2009 the IUGS President sent a memorandum to the IUGS Commissions and Task Groups, which was copied to the EC members on 4 June 2009. On this item Riccardi requested an Action Item defining updating of information.

The Committee ACCEPTED the report on the IUGS Website and AGREED on the following action:

ACTION ITEM #20: President Alberto RICCARDI to send Wikipedia information to the EC.

12. IUGS 50th ANNIVERSARY

12.a. Summary of Paris Event (21 February 2011) - Riccardi

Alberto reported that the event was a great success thanks to the participation amongst members of the IUGS and UNESCO.

The Committee AGREED on the following action:

ACTION ITEM #21: President Alberto RICCARDI to write letters of thanks and appreciation to all those individuals involved with the 50th Anniversary celebrations.

12.b. Global Geoscience Essay Contest - Hill

- Mass emails have been generated for this effort.
- The winner will be presented at the 34th IGC Congress
- Entry deadline is the 2nd of March 2011
- All Essays will be sent to Episodes in March.

The Committee ACCEPTED the report on the Global Geoscience Essay Contest.

12.c. IUGS DVD - Hill

Pat Leahy and the AGI provided video assistance in this production. Colin Mably, Peter Bobrowsky and Rich Calnan were quite helpful. GSL provided the narrator. Letters of thanks will be sent to a number of people. Distribution was made via flash drive. Peter Bobrowsky expressed thanks to Wesley Hill, Rich Calnan and Colin Mably and this should be reported at the next IGC. A suggestion was made to increase the capacity of the flash drive to allow recipients to use the flash drive and giving a constant reminder of IUGS. Alberto Riccardi congratulated Wesley on both the Essay and the video which are very successful endeavors.

The Committee ACCEPTED the report on IUGS DVD and THANKED Wesley Hill, Colin Mably, Rich Calnan, Pat Leahy, Sir David Attenborough, the American Geological Institute and the Geological Society of London.

12.d. Episodes, etc. - Jayananda

Jayananda congratulated the IUGS on the celebration of 50 years and he will have the new logo for the March Episodes edition. He asked if a special issue on the 50th Anniversary was in order. Alberto suggested that there be an editorial on the 50th Anniversary for the March edition.

The Committee AGREED on the following action:

ACTION ITEM #22: President Alberto RICCARDI to submit an article to Episodes regarding the IUGS 50th Anniversary event.

12.e. Book on IUGS History - Riccardi

In its 2009 annual meeting the IUGS EC (Sydney, January 11-15, 2009) approved the project to produce a Book on the "History of the IUGS (1961-2011)" and decided that IUGS President together with David Oldroyd, INHIGEO Vice-President, should develop a TOR for a volume on the History of the IUGS. The TOR was approved by the IUGS EC by 23 March 2009, and on 3 April 2009 the IUGS President sent an official letter to the INHIGEO's Chair, Prof. Figueiroa, requesting INHIGEO to collaborate in the book. A positive reply was received on 15 April 2009. Although IUGS has informed that there was no money allocated to this project in the 2009 budget, some support was provided for people to participate in a specific workshop and to visit the IUGS Secretariat archives in Trondheim, Norway.

The whole project on this book was discussed at the IUGS EC meeting in Paris on February 22-25, 2010. As the IUGS EC was concerned with the IUGS 50th Anniversary and the actual possibility of the Book on the History of the IUGS to be ready for beginning of 2011, to meet such a schedule it was agreed that it was necessary to revise and downgrade the original plans and to produce a book of about 100-150 printed pages

summarizing the main stages in the development of the IUGS. It was agreed that in order to have the book published on time it will be necessary to have the MS ready to go to press for the middle of this year, and it was decided to allocate money to the project only if it was clear that the book would be ready on time.

As for the middle of 2010 it is clear that it was too late to produce a book for 2011 following the plan approved by the IUGS EC in March 23 2009, production of such a book for 2011 was abandoned, and the IUGS continued working on other initiatives to commemorate its 50th Anniversary in 2011. These decisions were informed to INHIGEO and all involved people, thanking them for all the efforts given to the initiative. It was also remarked that the possibility to produce a book on the history of the IUGS still holds but its planning would need to be reconsidered.

Meanwhile, and on the basis of a kind offer made at the EC meeting in Paris AGI's Executive Director, Pat Leahy, to help to produce a DVD on the IUGS which could be ready for the IUGS 50th anniversary, The IUGS EC decided to produce a DVD on the IUGS. At the same time the IUGS President proposed the IUGS Bureau go explore the possibility to produce for the IUGS 50th Anniversary a booklet summarizing the most important historical facts on IUGS, i.e. list of ECs with members, list of EC, Bureau and Council meetings (with places and dates), list of Commissions, Task Groups and Initiatives, list of Adhering and Affiliated members with year of affiliation, IUGS Publications, IGCP Scientific Board members, IGCP projects, etc. The project was initiated but it is still in its preliminary stages.

The Committee ACCEPTED the report.

12.f. Other proposals

- Wesley Hill has put together a proposal that Panel Portal exhibits to be established that can be carried to various meetings
- Rich Calnan offered the panels that were displayed at the 50th Anniversary Meeting to members of the EC for any upcoming events.
- Wesley Hill will provide each EC member with proposals for review.

13. IUGS POLICY AND STRATEGY MATTERS

13.a. IUGS/IGC Statutes and Byelaws - Leahy

This was covered in the report that Pat Leahy provided under Item 6.d.

The Committee ACCEPTED the report on IUGS/IGC Statutes and Byelaws.

13.b. IUGS Strategic Plan and Priorities of IUGS - Boriani-Riccardi

Alberto Riccardi opened with a discussion on better coordination between IUGS and member countries since the Adhering report submissions are down. Alberto is concerned with their lack of participation in IUGS activities. He expressed that there is a need for more coordination with UNESCO and ICSU. Activities within the National Committees are good for Commissions and Task Groups and on the outside working good with UNESCO however we need better coordination. We need to improve interaction with UNESCO and increase the fields of study within UNESCO, for example, within the Africa Nation field. Alberto will send proposal to improve coordination with UNESCO. Generally, things are going well but some adjustments are necessary. Coordination with ICSU is a different matter basically we are moving paper. ICSU Grants are different – we send out the announcement for grants and last year one organization submitted a request – why are others not responding? ICSU is moving in the geo-information arena. As to the liaison for Africa, Asia and Latin America, ICSU followed thru on establishing liaison members. We need to improve relations with committees within ICSU.

Things that are missing:

1. The IUGS needs to become involved in the biosphere and climate areas.
2. Improve on IUGS Standards -- like to see standards spread in many parts of the IGC. Increase the use

of standards and prepare for a symposium at the IGC. We could build upon Cavazza's recent work on standards and maybe develop into a brochure or publish on the website.

3. Strategic Planning is moving along with the Strategic Planning Committee, working on Statutes, Task Groups and Finance.

Comments:

- Boriani – need to prioritize and move forward. IUGS needs to set the priority first. Leo will submit a priority plan.
- Errami - Geo-Education in Africa – IUGS needs to work hard on that effort and be more involved in activities– UNESCO cannot do all the work. We need to propose the initiative.
- Riccardi – our job is to coordinate with other organizations. If we can't coordinate the effort we need to take on the task on our own.

The Committee AGREED on the following action:

ACTION ITEM #26: Treasurer William CAVAZZA to produce recommendations and a detailed plan on how deal with IUGS international standards for IUGS EC approval.

13.c. Task Groups (TG) and other assignments

13.c.1. TG on Adhering Organizations - Charvet

Regarding the Questionnaire and Recommendation circulated to Adhering Members:

- Only 8 countries replied – Albania, Australia, Burkina Faso, Columbia, Costa Rica, Estonia, France and Russia.
- 56% of the National Committees have an existing website.
- 23% of the National Committees have a link with the IUGS.
- Make information available on the IUGS website
- Set a link on the website.
- Provide a report template for NC/TG.
- Improve relationship between IUGS and NC/TG and open the lines of communications.
- Use the website for insight on committees.
- Within Episodes provide a one page summary of events to be included on the website and updated every 3-6 months.

Comments:

- There have been existing problems for years. IUGS should work with UNESCO and move communication through the UNESCO National Offices.
- Seems we are discussing things that don't exist.
- Many countries have no NC's and IUGS needs to be pro-active on improving communications i.e., in Slovenia there is no National Committee and Mirka Trajanova is working through the National Geological Society involving three organizations.
- It seems the National Committees do not want to complete questionnaires. Need to look for the IUGS document that was established for the creating an IUGS Committee
- IUGS should have a page on items related to ICSU to report both on accomplishments of scientific and bureaucratic information
- Create guidelines on getting information out.
- This is a very important topic – need to know precisely the role of a NC. Perhaps merge functions – welcome NC and lobby for the host ORG to be involved.
- The main task of the NC's to report on earth science activities in their countries. Need to provide the number of members within the NC, their names and contact information.

In Oslo the guidelines for Task Groups was developed which included background and general strategy with 12 items listed. We need to follow the developed guidelines and improve

communications. IUGS needs to be pro-active.

The Committee ACCEPTED the report of the TG on Adhering Organizations and AGREED on the following actions:

ACTION ITEM #23: Vice President Jacques CHARVET to provide the contact details of all National Bodies to Secretary General Peter BOBROWSKY for inclusion in the website.

ACTION ITEM #60: Vice President Jacques CHARVET to provide the appropriate wording for the proposal to introduce changes in the website in relation to IUGS Adhering Members.

13c.2 – Task Group on Affiliated Organizations – Ochir

- Why a questionnaire – to improve integration, better understanding of AO and develop regulations of the AO -- Refer to report. This report should be included in the Strategic Plan.
- Reports should include information from the current year and should link website to our website.

Official Report follows (Gerel)

Task Group on affiliated organization revised Questionnaires developed with help of Dr. H. Harper, available now in website: <http://www.surveymonkey.com/s/IUGS1>

Questionnaires sent to all affiliated organization and received from 25, about 45% of all organizations. Answers were interpreted.

Affiliated Organizations are interested in receiving more information, in addition to Episodes and the Electronic Bulletin and especially, information on ICSU, IUGS commissions and some Task Group activities. Many affiliated organizations are interested in participating in IUGS cooperative activities with other international organizations, such as UNESCO and ICSU, in programs devoted to capacity building and transference of knowledge from developed to developing countries. Every of affiliated organization have website, regularly updated, but in some of websites IUGS is not clearly recognized. All organizations are actively participated in IGC organizing special session. Affiliated organizations cooperate with many other organizations of similar field.

Using these data we recommend: to share information of ICSU, UNESCO with Affiliated Organization including journal “Episodes” on-line. Also important is to develop Report form, which will include only activity done in the current year, publication, meetings, awards, and if needed very brief data related to history.

The Committee ACCEPTED the report of the TG on Affiliated Organizations.

13.c3. – IUGS-IYPE – Errami

The IUGS National Committee situation is always a concern. We need to determine how to have committees and keep everyone happy. Share what has been learned and what made IYPE successful.

Recommendations for IUGS NC:

- Set inspiring targets by involving NC's and other Geo-Unions
- Determine a 2-3 year time limit
- Collaborate efforts with other Geo-Unions
- Join funds from public sources and go for target directed and private sponsorship.

Comment:

It is true that IYPE events at local and national levels received links with a lot of people – inspired by lessons of IYPE a bit pessimistic for long term. Arne – who is active on the local level – GS of Norway needs a national organization, international organization and a grass roots organization. It is important to build on a grass root movement. It may be necessary to merge everything.

13.c.4. Inactive Countries - Tandon

- 34 inactive countries – this has been a problem and the numbers have been declining since 2005.
- Over the past 10 years the numbers have varied from 20 – 25% classified in category 1.
- Suggest we work with nations providing little or no participation first.
- Focus on the most recent inactive countries and work backwards.
- Work with Ambassadors in those regions.
- Offer a one-time waiver fee to become active.
- Work also to contact non-member countries 188 total with 120 member countries leaves 68 who have never participated.
- Work to update email addresses.

Comments :

- A one time waiver of the last three years for dues was offered and there was little response.
- This is not a problem with the country it is the lack of communication with the person receiving the information.
- Provide a budget and meet with country government officials to show interest and provide the benefit of becoming a member of the organization.
- Suggest that we ask the GSL if they would be willing to pay a number of country fees as they have provided in the past. Perhaps contact other organizations with the same suggestion.
- Essential to have the correct contact person – fine tune.

The Committee ACCEPTED the report on Inactive Countries and AGREED on the following actions:

ACTION ITEM #31: Councillor Sampat Kumar TANDON to look for new member countries.

ACTION ITEM #32: Councillor Sampat Kumar TANDON to request to GSAf President A. MOGESSI to provide list of potential contact names from African inactive and non-member countries.

ACTION ITEM #33: President Alberto RICCARDI to provide a list of potential contact names from Latin America to Councillor Sampat Kumar TANDON .

ACTION ITEM #34: President Alberto RICCARDI to contact the Geological Society of London to see if they are willing to sponsor African country members to the IUGS.

13.d. Relations with UNESCO Regional Offices

13.d.1. RO on Arabian countries and sub-Saharan Africa - Errami

- Good relations with both offices – we now have a new contact, Felix Toteu with whom we are in contact. We are building a strong relationship and are coordinating a conference with the UNESCO Cairo Office.
- Regarding the Education Initiative in Africa, it is very important and UNESCO would like to link with them and liaise with them. In short set up a UNESCO Working Group on litigation and work through the UNESCO RO in Nairobi who would be the lead assisted by the Cairo & HQ (Sarah Gaines). UNESCO will inform IUGS as things become firm in the next two months.
- With the joint effort in Africa and UNESCO is looking at Moscow and Brisbane. UNESCO is beginning to structure the initiative and these are less structured in the beginning. To be successful UNESCO needs the IUGS support in education and the support of affiliate organizations.
- The structure looks good and it is good to see the structure is planned beyond Africa.

The Committee ACCEPTED the report

13.d.2. RO on Asia and the Pacific - Ochir

- Ochir reported that she had sent two letters and had not response. She expressed that she would like to work in this are, however there is no relation with that country.
- The Regional Officer for Asia is in Bangkok and that is not a good place for good science. A better contact would be in Jakarta who should at least be copied.
- UNESCO will provide the Field Officer contact information for Jakarta to Gerel.

13.d.3. RO on Latin American and the Caribbean – Riccardi

- Alberto reported that Marta MANTOVANI was IUGS former contact for LA and he has taken over the liaison with LAC. .
- In May, Alberto expects to attend the Argentina Geological Congress and in August the Latin Geological Congress meeting in Medellin, Colombia.,
- Alberto suggested to UNESCO RO to organize a seminar on GEOPARKS this year. He would like to expand from GEOPARKS to Education and he agreed to take on that task and liaise with UNESCO.
- He will stay in contact with the UNESCO office in Montevideo.

The Committee ACCEPTED the reports on UNESCO RO and AGREED on the following action:

ACTION ITEM #35: President Alberto RICCARDI to send the contact coordinates for the UNESCO Jakarta office to Councillor Ochir GEREL.

13.d.4. Robert Missotten retirement

- Robert Missotten thanked IUGS for their support and announced his retirement as of July 1, 2011. He reported that the vacancy would be posted for two to three months. There will be a person designated to coordinate activities with IUGS in the interim.
- Alberto thanked Robert for all of his support and cooperation with IUGS and wished him the best. That was followed by a large round of applause.

The Committee THANKED Robert Missotten for all his support and cooperation with IUGS and AGREED on the following action:

ACTION ITEM #36: IUGS to help to advertise (website, e-Bulletin) UNESCO's (Robert Missotten) position to become vacant this year.

13.e. Relations with ICSU Regional Offices

13.e.1. RO on Africa - Errami

- Errami reported on the excellent relationship between the IUGS and the ICSU South Africa Office. The new RO for South Africa is Edith Mandella.
- We have acquired a lot of information from the former incumbent in the ICSU position and we look forward to a continued excellent relationship on this collaborative effort in the future.

13.e.2. RO Asia and the Pacific - Ochir

- Ochir reported that she has no relationship with this office and has sent two letters without response. She spoke with contact on Monday and will establish working relationship.
- The communication issue is a problem that needs to be resolved. Ochir will work with the RO and

determine exactly the problem. She will follow up in writing with a copy to Alberto.

13.e.3. RO on Latin American and the Caribbean - Riccardi

Marta Mantovani was previously the lead on relations with ICSU office and attended the Regional Consultation in March 2009 in Mexico City. He meeting was also attended by the Director of UNESCOs Montevideo. Activities of ICSU RO in the region are focused on Natural hazards & Disaster, Biodiversity, Sustainable energy and Mathematics Education. In 2010 grants have been provided on: Biodiversity & Human Well Being: identifying priorities for research, management policies, and Mapping scientific disciplinary Networks. Alice Abreu, a Brazilian was in charge until the end of 2010. The RO will now be in Mexico City, led by Professor Manuel Limonta. They are involved with other GeoUnions, IUGG, Radio Science, and Astronomy. Perhaps this can become a collective effort.

The Committee ACCEPTED the reports on ICSU RO and AGREED on the following actions:

ACTION ITEM #29: President Alberto RICCARDI will clarify with the ICSU RO for Asia and Pacific and IUGS liaison OCHIR Gerel problems of communication between them.

ACTION ITEM #37: President Alberto RICCARDI will assume the role of liaison with the ICSU RO for Latin America and the Caribbean.

14. REQUESTES FOR FUNDING AND BUDGET FOR 2011

Budget:

The Executive Committee reviewed the charts provided by William Cavazza, below are the results as decided by the Executive Committee.

IGCP -- \$70,000.
GARS -- \$6,000
ILP -- \$15,000

IUGS COMMISSIONS

CGI -- \$10,000
COGE -- \$3,500 which is contingent on the submission of a formal plan.
GEM -- \$10,000
ICS -- \$50,000
INHIGEO -- \$4,500
IUGS-IUPAC Task Group on Isotope Geology - \$4,950
TECTASK -- \$7,000
TGGGB -- \$5,000
TGGe-GeoHeritage -- \$6,000.

INITIATIVES

Forensic Geology -- \$15,000

COMMITTEES

Finance Committee -- \$2,000
Publications Committee -- \$8,000
Strategic Planning Committee -- \$2,000

AFFILIATE ORGANIZATIONS

AGID -- \$1,000
CGMW -- \$6,000
GSAf -- \$6,000.

AAWG -- \$6,000

SGA -- \$1,500 for SGA activities and an addition \$3,000 for African Metallogeny Courses

OTHER EXPENSES

Meetings - \$50,000
Representative Science Meetings - \$10,000
Exhibits - \$5,000
Annual Report – Nothing
Website - \$2,000
ARC - \$10,000
Promotion Items - \$5,000
IGCP – 40th Anniversary Brochure - \$5,000
Anniversary Publication – Fact book \$2,000
Bank Charges - \$4,000
Episodes - \$28,000
Contingency - \$5,000
Hutchison Reserve - \$2,000
Secretariat Expenses - \$15,000
Officers Reserves - \$5,000
Movie - \$19,000
50th Anniversary - \$15,000
IGCC Loan Request for South Africa Meeting - \$20,000

IUGS - \$446,663 – Expenses for the year

The Committee APPROVED the 2011 IUGS budget.

15. UPDATE

15.a. Annual Reports 2009 and 2010

It is reported that the Annual Report for 2009 has been compiled and will be completed in the next few months.

The Committee AGREED on the following actions:

ACTION ITEM #44: Secretariat to circulate the 2009 Annual Report to the IUGS EC in early March.

ACTION ITEM #45: Secretariat to produce the 2010 Annual Report in the next few months.

15.b. IUGS Brochures and Flyers

It is considered that printing of new brochures and flyers probably will be needed next year for the IGC in Brisbane.

The Committee AGREED on the following action:

ACTION ITEM #58: Secretariat to generate a new inventory of brochures and flyers.

15.c. IUGS Exhibition Stand

Riccardi reported that Anne Dehls has informed that a large exhibit stand is in Norway in the basement of NGU. It is too impractical and expensive to transport. Thus he has now asked Councillor Wesley Hill to look into this matter.

The Committee AGREED on the following action:

ACTION ITEM #24: Councillor Wesley HILL to obtain and populate a large scale poster display for use by the IUGS in pending conferences.

15.d. IUGS Exposure and Advertising Products

Production of different items (ties, scarves, puzzles, etc.) is discussed. It is considered that for this year there is enough material left. The issue will be discussed again during the next EC at the beginning of 2012 in order to have enough products for the IGC in Brisbane.

15.e. Awards

Two documents (see Appendix for full text) on two new types of IUG awards are considered:

- 1) IUGS Scientific Awards of Excellence
- 2) IUGS Episodes Best Paper Award

In addition, William Cavazza suggested an Excellence Award (type of career award).

The Committee APPROVED the “IUGS Scientific Awards of Excellence” and “IUGS Episodes Best Paper Award”, and AGREED on the following action:

ACTION ITEM #46: Treasurer William CAVAZZA to submit a formal proposal for a new IUGS award to the IUGS EC.

15.f. Directory

16. VENUE AND DATE OF THE 63RD AND 64TH EXECUTIVE COMMITTEE MEETINGS

Propose to meet in Paris or close to Paris to coincide with the IGCP Meeting and celebration of IGCP 40th anniversary. – Left open to be discussed electronically.

17. OTHER BUSINESS

There is no other business for discussion.

18. FREE DISCUSSION

Arab Geological Association (AGA) - Iraq National Committee for IUGS.

There is an exchange of views with regard to these organizations. The matter is somewhat confused by the fact that several countries, including Iraq, Syria, and Jordania are due to pay fees as members of AGA, and the Secretary General of AGA (with headquarters in Iraq) is at the same time the President of the Union in Iraq. But as members of AGA are not paying their dues, this organization is not able to pay its dues to IUGS. There is a proposal that the IUGS President should write letting them know that they need to pay their dues to Iraq so that Iraq can pay the IUGS.

Resignation of Felix Toteu as member of the Nominating Committee

In regards to the formal resignation of Felix Toteu, once this is received the IUGs EC will propose a new member to the IUGS Council.

The Committee AGREED on the following action:

ACTION ITEM #51: All EC members to submit the names of potential candidates to replace Felix TOTEU in the Nominations Committee.

ARC Review

The Committee discussed pending reviews to IUGS Commissions.

The Committee AGREED on the following actions:

ACTION ITEM #47: ARC on INHIGEO to be completed (Chair Secretary General Peter BOBROWSKY, Secretary Colin SIMPSON)

ACTION ITEM #48: ARC on COGE to be completed (Chair Councillor Wesley HILL, Secretary Councillor Ezzoura ERRAMI)

Geoheritage - Geoparks

It is mentioned that there is a need for more coordination for GeoHeritage issues. The matter will be postponed until the Chair of the GeoHeritage Task Group has had time to provide input.

It is also mentioned that would be important to coordinate the GeoParks network and that a MOU will be established between the Geoparks Network and the IUGS.

The Committee AGREED on the following action:

ACTION ITEM #59: Councillor Colin SIMPSON to circulate the Geopark TOR to the EC.

French National Committee

It is considered the support given by the French National Committee to IUGS for the meetings held in Paris during 2010 and 2011.

The Committee AGREED on the following action:

ACTION ITEM #39: President Alberto RICCARDI to thank the French NC for the support given to IUGS for the meetings held in Paris during 2010 and 2011.

IUGS Secretariat material in Austria

It is mentioned that Past Secretary General W. Janoschek has informed on the existence in Austria of some old Secretariat material.

The Committee AGREED on the following action:

ACTION ITEM #61: Secretariat to find out what is the situation with the IUGS material W. Janoschek has in Austria.

19. REVIEW OF ACTIONS ARISING FROM THIS MEETING

62nd Executive Committee Meeting Paris, France

ACTION ITEM #1: The Chair of the Publication Committee (PC) Fred SPILHAUS should organize a physical meeting of the entire committee within the next few months to ensure delivery of outstanding items and

obligations. **Pending**

ACTION ITEM #2: President Alberto RICCARDI will write to Springer and inform them that they should not use the IUGS logo on their publications without written permission from the IUGS PC. **Completed**

ACTION ITEM #3: The Chair of the Publication Committee (PC) Fred SPILHAUS to provide a written recommendation/strategy to the EC regarding the use of the Union logo for various types of publications, and specifically with regard to those that were accepted by other publishers after being rejected by GSL. **Completed**

ACTION ITEM #4: IUGS Secretariat to provide pdf copies of all Commission and Task Group reports to Secretary General Peter BOBROWSKY for immediate uploading to the website. **Completed**

ACTION ITEM #5: ICS Chair Stan FINNEY to propose to the IUGS EC a solution regarding the relationship/transition of existing ICS Awards into new IUGS Awards. **Completed**

ACTION ITEM #6: President Alberto RICCARDI to publish an acknowledgement about Prof. Pinto in relation to INHIGEO for Episodes. **Completed**

ACTION ITEM #7: Secretariat to obtain ratification from the IUGS EC for the proposed new members to TECTASK and then obtain formal Council approval. **Completed**

ACTION ITEM #8: Councillor Wesley HILL to determine the exact structure and type of relationship that exists between the IUGS TGGGB and the new Tier 2 UNESCO Geochemical Institute in China. **Completed**

ACTION ITEM #9: Councillor Wesley HILL to act as IUGS EC official liaison for IUCN related activities and with the Task Group on Geoheritage. **Completed**

ACTION ITEM #10: Secretary General Peter BOBROWSKY to inform the IUCN that IUGS EC requires that the IUCN acknowledges and responds past evaluation to IUGS reviewers. **Completed**

ACTION ITEM #11: Councillor Sampat Kumar TANDON to write the Task Group on Isotopic Geology (TGIG) requesting that they submit a formal request to the IUGS EC to approve any recommendation and change before publishing them. **Completed**

ACTION ITEM #12: President Albert RICCARDI will approach the GeoUnions encouraging our collective participation in the pending Green Energy Meeting in Rio. **Completed**

ACTION ITEM #13: All IUGS EC members should recommend potential new members as scientific specialists to the virtual scientific board of IGCP sending details of candidates to the Secretary General before 1 July 2011. **Completed**

ACTION ITEM #14: All of the IUGS EC to ask their national representatives to provide formal contacts and consider participation in the Task Group on Global Geoscience Workforce (TGGGW). **Completed**

ACTION ITEM #15: The Task Group on Global Geoscience Workforce Chair, Chris KEENE to develop and promote a simple website for this activity. **Pending**

ACTION ITEM #16: Secretary General Peter BOBROWSKY to add the successful ICSU grants to the IUGS website. **Completed**

ACTION ITEM #17: Episodes Editor MUDLAPPA Jayananda to include the Impact Factor prominently in the future issues of the journal Episodes. **Completed**

ACTION ITEM #18: President Alberto RICCARDI to send a letter to all members, affiliates, and others inviting them to contribute to the journal Episodes. **Completed**

- ACTION ITEM # 19:** Episodes Editor MUDLAPPA Jayananda to link Episodes website to the website of the Geological Society of Africa to promote the journal in Africa. **Pending**
- ACTION ITEM #20:** President Alberto RICCARDI to send Wikipedia information to the EC. **Completed**
- ACTION ITEM #21:** President Alberto RICCARDI to write letters of thanks and appreciation to all those individuals involved with the 50th Anniversary celebrations. **Completed**
- ACTION ITEM #22:** President Alberto RICCARDI to submit an article to Episodes regarding the IUGS 50th Anniversary event. **Completed**
- ACTION ITEM #23:** Vice President Jacques CHARVET to provide the contact details of all National Bodies to Secretary General Peter BOBROWSKY for inclusion in the website. **Completed**
- ACTION ITEM #24:** Councillor Wesley HILL to obtain and populate a large scale poster display for use by the IUGS in pending conferences. **Pending**
- ACTION ITEM #25:** President Alberto RICCARDI to ask the Finance Committee, Strategic Planning Committee and Statutes task group to coordinate the documents on which they are working. **Completed**
- ACTION ITEM #26:** Treasurer William CAVAZZA to produce recommendations and a detailed plan on how deal with IUGS international standards for IUGS EC approval. **Pending**
- ACTION ITEM #27:** President Alberto RICCARDI to contact AGI, SEPM and EMU and request that they provide a logo and link to the IUGS website. **Completed**
- ACTION ITEM #28:** The Chair of the PC Fred SPILHAUS and the Publication Committee should provide recommendations to the EC regarding the current and potential future publication and distribution strategy of Episodes. **Pending**
- ACTION ITEM #29:** President Alberto RICCARDI will clarify with the ICSU RO for Asia and Pacific and IUGS liaison OCHIR Gerel problems of communication between them. **Completed**
- ACTION ITEM #30:** Chair of the Publication Committee Fred SPILHAUS to develop a special section in the journal EPISODES dealing with national highlights for various countries. **Pending**
- ACTION ITEM # 31:** Councillor Sampat Kumar TANDON to look for new member countries. **Pending**
- ACTION ITEM #32:** Councillor Sampat Kumar TANDON to request to GSAf President A. MOGESSI to provide list of potential contact names from African inactive and non-member countries. **Completed**
- ACTION ITEM #33:** President Alberto RICCARDI to provide a list of potential contact names from Latin America to Councillor Sampat Kumar TANDON. **Completed**
- ACTION ITEM #34:** President Alberto RICCARDI to contact the Geological Society of London to see if they are willing to sponsor African country members to the IUGS. **Completed**
- ACTION ITEM #35:** President Alberto RICCARDI to send the contact coordinates for the UNESCO Jakarta office to Councillor Ochir GEREL. **Completed**
- ACTION ITEM #36:** IUGS to help to advertise (website, e-Bulletin) UNESCO's (Robert MISSOTTEN) vacant position. **Completed**
- ACTION ITEM #37:** President Alberto RICCARDI will assume the role of liaison with the ICSU RO for Latin America and the Caribbean. **Completed**
- ACTION ITEM #38:** President Alberto RICCARDI to write a letter of confirmation and response to each

individual Adhering Body in response to their annual reports. **Completed**

ACTION ITEM #39: President Alberto RICCARDI to thank the French NC for the support given to IUGS for the meetings held in Paris during 2010 and 2011. **Completed**

ACTION ITEM #40: Secretariat to obtain Council ratification for IUGS Affiliate Membership of the Canadian Federation of Earth Sciences. **Completed**

ACTION ITEM #41: IUGS EC to study the Arab Geological Association proposal for an International Year of Geology. **Pending**

ACTION ITEM #42: IUGS to study a proposal of the Arab Geological Association to eliminate the statutory difference between Active and Inactive countries. **Pending**

ACTION ITEM #43: President Alberto RICCARDI to approach Robert MISSOTTEN to find out what they want to do for engineering geology in IGCP and then the President will approach IAEG to see if they can become involved. **Pending**

ACTION ITEM #44: Secretariat to circulate the 2009 Annual Report to the IUGS EC in early March. **Completed**

ACTION ITEM #45: Secretariat to produce the 2010 Annual Report in the next few months. **Completed**

ACTION ITEM #46: Treasurer William CAVAZZA to submit a formal proposal for a new IUGS award to the IUGS EC. **Completed**

ACTION ITEM #47: ARC on INHIGEO to be completed (Chair Secretary General Peter BOBROWSKY, Secretary Councillor Colin SIMPSON) **Completed**

ACTION ITEM #48: ARC on COGE to be completed (Chair Councillor Wesley HILL, Secretary Councillor Ezzoura ERRAMI) **Completed**

ACTION ITEM #49: President Alberto RICCARDI to inform Barry COOPER that the Building Stone proposal has been accepted as an IUGS Task Group. **Completed**

ACTION ITEM #50: President Alberto RICCARDI to contact Zhao XUN regarding the relationship between the Beijing Geoheritage Office and the new GeoHeritage Task Group. **Completed**

ACTION ITEM #51: All EC members to submit the names of potential candidates to replace Felix TOTEU in the Nominations Committee. **Completed**

ACTION ITEM #52: President Alberto RICCARDI to request clarification (statutes, terms of reference, membership list, website, publications, etc.) from GARS with pending approval to fund by IUGS. **Completed**

ACTION ITEM #53: President Alberto RICCARDI to request a spending plan from COGE with pending approval to fund by IUGS. **Completed**

ACTION ITEM #54: President Alberto RICCARDI to inform the Chair of GEM Kevin TELMER that he is not pleased with his lack of response and will request a confirmation of proactive change. **Pending**

ACTION ITEM #55: President Alberto RICCARDI to produce policy guidelines to deal with inactive Affiliated Organizations. **Completed**

ACTION ITEM #56: The EC to review the content of the brochure IGCP and see if there is something to add and/or change. **Completed**

ACTION ITEM #57: President Alberto RICCARDI to circulate the proposal by the SGA to the EC.
Completed

ACTION ITEM #58: Secretariat to generate a new inventory of brochures and flyers. **Completed**

ACTION ITEM #59: Councillor Colin SIMPSON to circulate the Geopark TOR to the EC. **Completed**

ACTION ITEM #60: Vice President Jacques CHARVET to provide the appropriate wording for the proposal to introduce changes in the website in relation to IUGS Adhering Members. **Completed**

ACTION ITEM #61: Secretariat to find out what is the situation with the IUGS material Werner JANOSCHEK has in Austria. **Pending**

ACTION ITEM #62: President Alberto RICCARDI to request Past-Vice President E. MOORES for text of legal advice to IUGS, produced before IUGS formal involvement in the Board of the International Year of Planet Earth (IYPE). **Completed**

APPENDIX XXXX

15.e. Awards

1) IUGS Scientific Awards of Excellence

Proposal 8 February 2011

Rationale

IUGS is an international scientific union representing scientists and professionals from 122 member countries, who work in all field of activities related to the Earth sciences, many of whom do so with outstanding relevance in specific fields.

Thus far, IUGS has not sufficiently recognized and expressed its appreciation for such outstanding professional geoscientists. Herein, is a proposal to create IUGS Awards addressing specific scientific fields of study to acknowledge such exceptional individuals.

Target persons

The awards should be in recognition of outstanding original contributions or achievements that mark a major advance or contribution to the Earth Sciences. Eligible candidates must be alive and able to accept the award personally at the time of recognition. Active officers of the IUGS Executive Committee, other Committees, Commissions, Task Groups and Initiatives are excluded.

Award

The award will consist of two components:

- A medal with the name of the prize, name of recipient, date and place of reception.
- A certificate with the name of the prize recipient, field of activity, date, and place of reception.

Procedure

- Every four years and one year prior to an IGC session the IUGS Executive Committee shall invite each IUGS Commission to nominate one candidate as recipient of an IUGS Award within their respective specific fields of interest/research.
- The Commissions shall define the nomination and selection guidelines, which will require IUGS Executive Committee ratification.
- The Call for Award Nominations and the subsequent Award Recipients will be acknowledged to the Adhering and Affiliate Members, and through the E-bulletins, the IUGS webpage and EPISODES.
- Nominations, which can be made by anyone in the IUGS family, shall be forwarded directly to the pertinent Commission.

Presentation

The awards will be presented by the IUGS President during the Opening Ceremony of an IGC session.

2) IUGS Episodes Best Paper Award

Proposal 8 February 2011

Rationale

The IUGS maintains official quarterly Journal covering developments of regional and global importance in the Earth sciences, where outstanding papers are regularly published by authors from around the world.

Thus far, the IUGS has not publically recognized exceptional authors of contributions to EPISODES. Herein, is a proposal to create an IUGS Episodes Best Paper Award to recognize the author(s) of a contribution published in Episodes and deemed exceptional for the year.

Target persons

The award should be given in recognition to the authors of the best original article published in any of the four annual issues of Episodes during an "annual" year. Active officers of the IUGS Executive Committee, other Committees, Commissions, Task Groups and Initiatives are not eligible.

Award

The award will consist of two components:

- A medal with the name of the prize, name of recipient, date and place of reception
- A certificate with the name of the prize recipient, title of article, date, and place of reception.

Procedure

- Every year the Publications Committee will request all members of the Editorial Board of Episodes to nominate the two best papers published by Episodes in the previous year.
- Subsequently, members of the Publications Committee will compile the results and undergo a second vote within the Editorial Board thus determining those contributions with the greatest number of nominations.
- The top ranked three papers will be proposed for the IUGS Episodes Award to the IUGS Executive Committee for ratification.

Presentation

The award will be presented to the Senior Author by the IUGS President during the Executive Committee meeting of the subsequent year and every fourth years at the opening ceremony of the IGC session.