

**INTERNATIONAL UNION OF GEOLOGICAL SCIENCES  
61<sup>ST</sup> EXECUTIVE COMMITTEE MEETING  
FEBRUARY 22-24, 2010  
PARIS, FRANCE**

**UNESCO HEADQUARTERS**

Fontenoy building, 7 Place de Fontenoy

**OFFICIAL MINUTES**



**Hosted by UNESCO Earth Sciences Sector**

## **Meeting Participants**

### **Executive Committee Members**

Alberto RICCARDI (IUGS President), Peter BOBROWSKY (IUGS Secretary General), William CAVAZZA (IUGS Treasurer), Ezzoura ERRAMI (IUGS Councillor), Mikhail FEDONKIN (IUGS Councillor), Marta MANTOVANI (IUGS Councillor), Colin SIMPSON (IUGS Councillor), ZHANG Hongren (IUGS Past President), OCHIR Gerel (IUGS Vice President), Jacques CHARVET (IUGS Vice President).

### **Observers:**

Kristine Asch (Chair, CGI), Tim Badman (IUCN), Pierre Barbey (IUGS NC, France), Danie Barnardo (35<sup>th</sup> IGC, S. Africa), Attilio Boriani (SPC, Italy), Fred Spilhaus (PC, USA), Ian LAMBERT (Sec. Gen. 34<sup>th</sup> IGC, Australia), Robert Missotten (IGCP/UNESCO), Eduardo de Mulder (IYPE), Sierd Cloeting (ILP), Stan Finney (ICS), Peter Seifert (Austria), Jan Pasava (IUGS Czech NC), Roland Oberhaensli (ILP), Luca Demicheli (EuroGeoSurveys), Bruno Vrielynck (CGMW), Patrick de Wever (IUGS NC France), Wesley Hill (GSA and Councillor Elect), Alik Ismail-Zadeh (IUGG), Ian Corbett (IAU), Francois Lefeuvre (URSI), Ian Jackson (OneGeology), Sabine Petit (AIPEA), Luca Micucci (YES), P. Patrick Leahy (AGI), Wolfgang Eder (IUGS NC Germany), Benjamin Mapani (GEM), R.H. Sawkar (GS India), Jean Gaudant (INHIGEO), Gabriel Gohau (INHIGEO), Margarete Patzak (IGCP/UNESCO), Sarah Gaines (UNESCO), Mohammed Muhtaseb (IUGS NC Jordan), Manuel Pubellier (CGMW), Hassina Mouri (GSAf).

### **Secretariat**

Richard Calnan (IUGS Secretariat, US Geological Survey), Nancy Zeigler (Recording, IUGS Secretariat, US Geological Survey), and Anne Liinamaa-Dehls (Recording, Past IUGS Secretariat).

### **Regrets:**

Mudlappa Jayananda (Episodes, India), Bahjat Aladwan (Jordan), B.R. Krishna (Episodes, India), Neil Williams (34<sup>th</sup> IGC), Gary Lewis (COGE), Kevin Telmer (GEM), Silvia Figuerio (INHIGEO), Cees Passchier (TECTASK), Edmund Nickless (IUGS NC UK), Phillip Muechez, (IUGS NC Belgium), Andrzej Zelazniewicz (IUGS NC Poland), Peter Seifert (IUGS NC Austria), Jan Pasava (IUGS NC Czech Republic), Hans Kümpel (IUGS NC Germany), João Sentiero (IUGS NC Portugal), Karl Föllmi (IUGS NC Switzerland), Cecilio Quesada Ochoa (IUGS NC Spain), Philippe Rossi (CGMW), Jack Hess (GSA), Ron Abler (IGU), Allan Chivas (INQUA), Orhan Altan (ISPRS), Roger Swift (IUSS).

# **AGENDA**

## **1. WELCOMING ADDRESS**

## **2. APPROVAL OF AGENDA**

## **3. MINUTES OF THE 60th EXECUTIVE COMMITTEE MEETING, 11-15 JANUARY 2009, SYDNEY, AUSTRALIA**

- 3.a. Approval of the Sydney Minutes
- 3.b. Actions arising from the Minutes

## **4. ANNUAL ADMINISTRATIVE AFFAIRS**

- 4.a. President's Report
- 4.b. Past President's Report
- 4.c. Vice Presidents' and Councillors' Reports
- 4.d. Secretary General's Report
- 4.e. Treasurer's Report
- 4.f. Permanent Secretariat's Report

## **5. ANNUAL REPORTS AND FUTURE PLANS OF IUGS BODIES**

### **5.a. COMMITTEES**

- 5.a.1. Nominating Committee (NC)
- 5.a.2. Publication Committee (PC)
- 5.a.3. Strategic Planning Committee (SPC)
- 5.a.4. Finance Committee (FC)
- 5.a.5. Ad hoc Review Committee (ARCs)
- 5.a.6. Proposals for new IUGS Committees

### **5.b. COMMISSIONS**

- 5.b.1. Geoscience for Environmental Management (GEM)
- 5.b.2. History of Geological Sciences (INHIGEO)
- 5.b.3. International Commission on Stratigraphy (ICS)
- 5.b.4. Education, Training and Technology Transfer (COGE)
- 5.b.5. Management and Application of Geoscience Information (CGI)
- 5.b.6. Tectonics and Structural Geology (TecTask)
- 5.b.7. Proposals for new IUGS Commissions

### **5.c. TASK GROUPS**

- 5.d.1. Global Geochemical Baselines (TGGGB)
- 5.d.2. Proposals for new Task Groups

### **5.d. ADHERING ORGANIZATIONS**

- 5.d.1. Application for Membership
- 5.d.2. Reports of Adhering Organizations

## **5.e. AFFILIATED ORGANIZATIONS**

- 5.e.1. Applications for Affiliation
- 5.e.2. Reports from Affiliated Organizations

## **6. INTERNATIONAL GEOLOGICAL CONGRESS (IGC)**

- 6.a. 33rd IGC in 2008 (Oslo)
- 6.b. 34th IGC in 2012 (Brisbane)
- 6.c. 35th IGC in 2016 (Cape Town)
- 6.d. IUGS participation at 34<sup>th</sup> IGC
- 6.e. IGC Statutes
- 6.f. International Geological Congress Committee (IGCC)

## **7. UNESCO**

- 7.a. Earth Sciences at UNESCO
- 7.b. IUGS-UNESCO International Geoscience Programme (IGCP)
  - 7.b.1. Guidelines for project leaders
  - 7.b.2. Report on IGCP
- 7.c. Geoparks and Geoheritage
  - 7.c.1. Global Geopark Network (GGN)
  - 7.c.2. Geoheritage
- 7.d. IUGS-UNESCO Programme on Geological Application on Remote sensing (GARS)
- 7.e. IUGS-UNESCO Task Group on Global Workforce (TGGW)

## **8. REPORTS ON OTHER PROGRAMMES**

- 8.a. IUGS-IUCN (World Conservation Union) geological World Heritage
- 8.b. IUGS-IUPAC Task Group on Isotopic Geology (TGIG)
- 8.c. OneGeology
- 8.d. Group on Earth Observations (GEO) -GEOSS
- 8.e. Young Earth Scientists Network (YES)

- 8.f. IUGS-IUGG International Lithosphere Programme (ILP)

## **9. INTERNATIONAL COUNCIL FOR SCIENCE (ICSU)**

- 9.a. Relations with ICSU
- 9.b. ICSU Committees and IUGS Representation
- 9.c. ICSU Grant Programme
- 9.d. Relations with other ICSU Unions (GeoUnions)

## **10. INTERNATIONAL YEAR OF THE PLANET EARTH (IYPE) LEGACY**

- 10a. Events in 2009 and IUGS involvement
- 10b. Termination of IYPE
- 10c. After 2009

## **11. PUBLICATIONS, ETC.**

- 11.a. Episodes
- 11.b. Special Publications: Agreement with GSL
- 11.c. E-Bulletin

11.d. Website

**12. IUGS 50<sup>th</sup> ANNIVERSARY**

12.a. Book on the History of the IUGS (1961-2011)

12.b. Other proposals

**13. IUGS POLICY AND STRATEGY MATTERS**

13.a. IUGS/IGC Statutes and Byelaws

13.b. IUGS Strategic Plan and Priorities of IUGS

13.c. Task Groups (TG) and other assignments

13.c.1. TG on Adhering Organizations

13.c.2. TG on Affiliate Organizations

13.c.3. IGCP Projects

13.c.4. Relationship between IUGS and IYPE

13.c.5. Inactive Countries

13.d. Relations with UNESCO Regional Offices.

13.d.1. RO on Arabian countries and sub-Saharan Africa

13.d.2. RO on Asia and the Pacific

13.d.3. RO on Latin American and the Caribbean

13.e. Relations with ICSU Regional Offices

13.e.1. RO on Africa

13.e.2. RO Asia and the Pacific

13.e.3. RO on Latin American and the Caribbean

**14. REQUESTS FOR FUNDING AND BUDGET FOR 2010**

**15. UPDATE**

15.a. Annual Reports 2008 and 2009

15.b. IUGS Brochures and Flyers

15.c. IUGS Exhibition Stand

15.d. IUGS Exposure and Advertising Products

15.e. Directory

**16. FREE DISCUSSION**

**17. REVIEW OF ACTIONS ARISING FROM THIS MEETING**

**18. VENUE AND DATE OF THE 62<sup>ND</sup> AND 63<sup>RD</sup> EXECUTIVE COMMITTEE MEETINGS**

**19. OTHER BUSINESS**

## **1. WELCOMING ADDRESS**

President Alberto RICCARDI called the 61<sup>st</sup> meeting of the Executive Council to order at 09:10 a.m. President RICCARDI welcomed the participants and observers and thanked the UNESCO hosts for their hospitality. The meeting will follow Robert's Rules of Order (as per ICSU protocol).

## **2. APPROVAL OF AGENDA**

A motion was made to approve the agenda.

The Committee APPROVED the agenda of the meeting.

## **3. MINUTES OF THE 60<sup>th</sup> EXECUTIVE COMMITTEE MEETING, 11-15 JANUARY 2009, SYDNEY, AUSTRALIA**

### **3.a. Approval of Sydney Minutes**

Peter BOBROWSKY , IUGS Secretary General moved to approve the Sydney

The Committee APPROVED the minutes of the 60<sup>th</sup> Executive Committee meeting held in Sydney.

### **3.b. Actions arising from the Sydney Meeting**

Secretary General Peter BOBROWSKY reviewed the Action items and status from the Sydney meeting.

1. PC Chair Godfrey NOWLAN is to confirm the change to the MOU status with GSL which will include a front-end payment of 1250 £, fee for publications, but limit the agreement to two years. Completed.
2. President Alberto RICCARDI will send letters of appreciation to Government of China and Episodes editorial staff recognizing their many years of support and hard work. Completed.
3. EC members to send nominations to PC regarding candidate Associate Editors of Episodes before March 10, 2009; PC Chair Godfrey Nowlan and PC members then to confirm Associate Editors replacements before April 1, 2009. Completed.
4. Secretary General Peter BOBROWSKY to inform IUGS distribution list of the intent of the Union to produce a 50<sup>th</sup> anniversary volume about the Union in time for 2011. Completed.

5. President Alberto RICCARDI and David OLDROYD will develop a draft TOR for the IUGS Anniversary Volume and send to the EC for their comments and approval. Completed.
6. Secretary General Peter BOBROWSKY (Chair) and Councillor Colin SIMPSON will complete an ARC on CGI before next EC meeting. Completed.
7. Councillor Mikhail FEDONKIN (Chair) and Vice President Gerel OCHIR to complete an ARC on COGE before next EC meeting. Pending
8. President Alberto RICCARDI will send draft of TOR and reporting guidelines for all IUGS ARC's to the full EC for their comments and revision. Completed.
9. EC members to send their comments on the draft Strategic Advisory (Planning) Committee, originally proposed by Alberto RICCARDI, to the full EC by 20 March, 2009. Completed.
10. Secretary General Peter BOBROWSKY will send a letter to GEM congratulating the Commission on their activities and encouraging their increased visibility in Episodes. Completed.
11. All EC members to send their comments regarding revisions to TECTASK Commission Statutes and Bylaws to Vice President Jacques CHARVET and President Alberto RICCARDI by 15 March 2009; collective comments will be sent to TECTASK by 1 April 2009. Completed.
12. If IUGS suggestions are accepted by TECTASK, then President Alberto RICCARDI to request that the Commission provide a list of officers so that IUGS can obtain Council ratification. Completed.
13. President Alberto RICCARDI will contact TGIG and ask for clarification on what they are doing and who they are contacting; as well as to, ask if they could launch their own website. If not, IUGS should provide a one page summary page link on their website. Completed.
14. Short term task group (with Marita BRADSHAW, Michael LEGGO, William CAVAZZA and Peter BOBROWSKY) to edit TOR document for the Global Geoscience Workforce Task Group and distribute to the IUGS EC before forwarding to AGI. Completed.
15. Michael Leggo will contact AAG to see if they would be willing to provide a link to the IUGS website on the AAG website. Completed.
16. President Alberto RICCARDI will contact AAPG and determine why they are not providing the Union with an annual written report. Completed.

17. Vice President OCHIR Gerel and the Task Group on Affiliated Organizations must find out why the Arab Geologist Association (AGA) is not functioning. Ongoing.
18. Permanent Secretariat to contact AGID and update Episodes distribution list for Developing Countries; also to update and provide list to AGI. Completed.
- 19.– President RICCARDI to contact CCOP and clarify its relationship to IUGS. Completed.
20. – President RICCARDI to contact COGE and request a response as to how they will collaborate with AGID and CIFEG. Completed.
- 21.– Vice President OCHIR Gerel and the TG on Affiliated Organizations will check web sites of all Affiliates and politely request that the affiliation with IUGS be recognized on their own website and a link to the IUGS website be added if not yet present. Completed.
22. – President RICCARDI will inquire if IGCC could decide by e-mail on integrated or separate statutes and byelaws or see if an IGCC meeting could be arranged for 2009. Completed.
- 23.– One EC member (Vice President CHARVET) and IUGG, will cochair, with two other experts, an ARC on ILP within 6 months. Obsolete.
24. – PC Chair Nowlan and IGC Secretary General Ian LAMBERT will draft a generic reporting template for IYPE National Committees. Completed.
25. – President RICCARDI will draft a proposal regarding future activities with UNESCO before the Bureau meeting in February. Completed.
- 26.– Permanent Secretariat to contact IGCP Secretariat and forward concerns of Ed Derbyshire regarding timing of reports and cc: to National Committees. Completed.
27. – IUGS EC to work with IGC 35 organizers to include specific sessions on international standards. Progress and completed.
28. – IUGS EC to work with IGC 35 to include specific sessions on international standards. Skipped.
- 29.– Past President ZHANG Hongren, VP CHARVET and IGC Secretary General Ian LAMBERT to provide President RICCARDI with details about YES. Completed.
30. – Chair of the PC Committee Godfrey Nowlan to distribute revised text of



brochure and flyers to the EC by April.. Completed.

31. – All EC members to send PC Chair Godfrey NOWLAN at least one image before 15 February 2009 for use as next brochure cover. Completed.
- 32.– Permanent Secretariat will revise the door sized poster for IUGS and distribute to EC for review before 1 April, 2009. Completed.
- 33.– President RICCARDI will contact Ian JACKSON of One Geology and request an update on the status of the initiative. Completed.
- 34.–President RICCARDI will send a copy of web site specifications to Godfrey Nowlan and Ian LAMBERT. Completed.
35. President Alberto RICCARDI will inform US IUGS and India NC about the results of IUGS deliberations regarding Episodes. Completed.
36. PC Chair Godfrey Nowlan and Episodes Editor Zhenyu Yang will contact Indian Episodes team, asking for clarification on the transition process. Completed.
- 37.Vice President CHARVET will represent IUGS at January meeting of IYPE Board. Inflexible positions on \$50,000 for IGCP in 2009 budget and final disbursement of surplus funds must be proportional to original founders. National Committee positions should revert to their previous status: no exact commitment without further details on IYPE 2020. Completed.
38. Secretary General BOBROWSKY to coordinate with full EC the venue options for the next EC meeting in 2010. Completed.

#### **4. ANNUAL ADMINISTRATIVE AFFAIRS**

##### **4.a. President's Report**

##### **Alberto RICCARDI, President**

As done for 2008 one of the main concerns of the IUGS President during 2009 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 2008 reports and stressing the need to develop multilateral

cooperation among all these groups.

In connection with this goal and the idea to promote national and international “grassroots” actions within the framework provided by the goals, strategies and priorities shared by other International organizations, the IUGS President was actively involved in establishing and organizing a Strategic Planning Committee (SPC). Its main objective is to perform a detailed analysis of IUGS external and internal scenarios in order to address as efficiently as possible all earth science issues relevant to society.

In the External Scenario a number of actions were taken in order to develop a better interaction with other international organizations. Directed to that goal were several meetings held by the President and the Bureau members with different ICSU's officers, in which specific overtures were made to improve IUGS-ICSU relationship and to convey the intention to maintain and reinforce IUGS participation on all those activities related to ICSU's established priorities on Sustainable Development, Scientific data and information, and Capacity Building in Science, focused in developing countries. With regard to UNESCO, different meetings were held in February 2009 with several officers of the Division of Ecological and Earth Sciences and the Natural Sciences Sector, as well as with UNESCO's General Director. There it was exposed IUGS interest not only in reinforcing existing joint initiatives, such as the International Geosciences Program (IGCP), the Geological Applications of Remote Sensing (GARS) and the International Year of Planet Earth (IYPE 2007-2009), but in exploring new possibilities in relation to UNESCO's Mid-Term Strategy (2008-2013). In this context it was proposed for IGCP to study the implementation of a more accountable emphasis on capacity building and on transference of scientific knowledge from developed to developing countries. Additionally and within a vision focused in geo-education for the general public, preservation of environment and geological heritage, sustainable development, transference of knowledge, data management and promotion of global standards, it was proposed and accepted, for the IUGS to become actively involved in promoting the Geopark initiative as a member of the Bureau of the Global Geoparks Network. An unofficial report of these meetings was prepared by the IUGS President and distributed to the IUGS EC.

In the context of the Geoparks initiative the IUGS President attended the 3<sup>rd</sup> International Symposium on the Development within Geoparks: Geo-heritage Protection and Cooperation (August 22-25, Tai'an City, Shandong Province, China), where he delivered a speech in the opening session on IUGS and Geoparks. He also participated as an observer of a meeting of the Bureau of GGN held during the symposium.

On the external scenario it was also obtained for the IUGS to be recognized as a Participating Organization in GEO (Group on Earth Observations), a voluntary partnership of governments and international organizations, which is coordinating international efforts to build a Global Observation System of Systems (GEOSS) in which some priority areas are of interest to Earth sciences, e.g. natural and human-induced disasters, the environmental sources of health hazards, energy management and freshwater resources.

With regard to communications and visibility and in relation to the International Year of Planet Earth, which was launched by IUGS to demonstrate the potential of the Earth sciences in building a safer, healthier and wealthier Society and to encourage Society to apply this potential more effectively, the IUGS President gave especial attention to support this important initiative through a series of messages published in several IYPE books. He also participated of a National Event organized by the Argentinean IYPE National Committee (Buenos Aires, 8 October 2009) and of the IYPE Lisbon Event and IYPE Board meeting (Lisbon, 19-21

November 2009), where he delivered especial speeches at the opening ceremonies. The IUGS President was also working in order to see that IYPE successful results could be capitalized beyond 2010. Thus the IUGS President attended meetings organized by the Initiative OneGeology and the IUGS Commission on the Management & Application of Geoscience Information (CGI) (Buenos Aires, 29 June- 3 July 2009). There it was stressed IUGS interest in promoting the One Geology project, and in supporting the interaction this project has with the IUGS CIG, as well as a close collaboration on geostandards, between One Geology, other IUGS bodies and the 34<sup>th</sup> International Geological Congress (Brisbane, 2012). Participation of the International Commission on Stratigraphy in this work was considered in a meeting between IUGS President and the Chairman of the ICS, Professor S. FINNEY. As this IUGS initiative is also connected to IUGS interest to interact with geological surveys through organizations such as the EuroGeoSurveys and the “Asociación de Servicios de Geología y Minería Iberoamericanos” (ASGMI), the IUGS President made specific overtures to promote some type of formal relationship with these organizations.

The IUGS President gave also full support to another important outcome of the IYPE, as it is the Young Earth Scientists (YES) initiative. He sent formal messages and letters of support and was represented by IUGS Vice-President Jacques CHARVET, at the First World Young-Earth-Scientists Congress (YES) (25 - 28 October 2009, China University of Geosciences, Beijing), organized under the patronage of UNESCO.

The IUGS President was personally involved in finding a new host country for the IUGS Secretariat, including conversations with several countries which resulted for the end of 2009 in IUGS acceptance of a proposal received from the US National Committee, and the immediate transference of the Secretariat from Norway to USA.

As a result of a series of actions taken at the end of 2008 the IUGS President was also closely involved in the first half of 2009 in a smooth transition of Episodes Editorial Office from China to India, under a new MOU signed between IUGS and the Geological Society of India. As a result Episodes was brought up to date for the end of 2009 and is being published under the same excellent standards as before.

In connection with policies on communication the IUGS President promoted changes in the IUGS website, now underway, with a view to its improvement.

The IUGS President also had meetings with the Vice-Minister of Land and Resources of China, Dr. Wang Min, the Chairman of the US National Committee, Dr. Thomas Casadevall, Dr. Ester Sztein, Program Officer of the US National Academy of Sciences, Prof. Thom Beer, President of the International Union of Geodesy and Geophysics (IUGG), Prof. P. BARBEY, President of the French National Committee, Prof. J. Rolet and F. Pinard, President and Director of CIFEG, and Prof. Aberra Mogessie, President of the Geological Society of Africa, in which different issues of interest for the IUGS and the Earth sciences were considered. He also participated with a speech in the opening session of the IV Argentinean Congress on the Quaternary, XII Congress of the Brazilian Society for the study of the Quaternary and 2<sup>nd</sup> Meeting on the Quaternary of South America (20 September 2009). A message of the IUGS President was also read at the opening ceremony of the GeoDev Conference in Dhaka, Bangladesh on 26 October, 2009.

Finally and in relation to the IGCC the IUGS President had a meeting with Dr. Arne Byørlykke, IGCC Co-Chairman to organize future activities and a 2010 meeting of the IGCC.

A report of IUGS activities and accomplishments for the period August 2008-August 2009 was published by the IUGS President in Episodes 32, 3 (September 2009).

The Committee ACCEPTED the President's report.

#### 4.b. Past President's Report

##### **ZHANG Hongren, Past President**

As the former Editor of Episodes and Past president of IUGS, some effort has been made to facilitate the smooth hand over of the journal from China to India last May.

Before the UN Climate Change Conference in Copenhagen, ZHANG attended a number of meetings in China organized by All-China Environment Federation (ZHANG is the Vice President of the Federation), Deutsche Bank and others. ZHANG was invited by the Asian-Pacific Advisory Board of Deutsche Bank to make a speech on "Climate Change as a New Driver of Growth in a Past Crisis World".

ZHANG was invited to chair part of the 2009 International Conference on Environmental Science and Technology May 13th in Beijing. On August 22-23, ZHANG attended the "3rd International Symposium on the Development within Geoparks: Geo-heritage Protection and Cooperation in Tai'an City, Shandong Province, China and met colleagues of EC. On 25th Oct. ZHANG attended the First Congress of Young Earth Scientists (YES) in Beijing and met other colleagues of IUGS EC. At the beginning of December, ZHANG attended the meeting of Annual Review of the International Research Centre on Karst in Guilin, China. Dr. Robert MISSOTTEN represented UNESCO at the meeting.

During this period of time, ZHANG also gave lectures for geologists from Middle Asian countries about the significance of geology in sustainable development.

The Committee ACCEPTED the Past President's report.

#### 4.c. Vice Presidents' and Councillors' Reports

##### **Jacques CHARVET, Vice President**

In 2009, CHARVET:

- Attended the 60th IUGS Executive Committee meeting at Sydney, Australia, January 11-15
- Represented the IUGS President at the IYPE Board meeting in London, January 26
- Attended the IGCP Board and the IUGS Bureau meetings in February, in Paris, UNESCO building
- Represented IUGS at the Advisory and Coordination Committees meetings of the European Geopark Network, at Iglesias, Sardinia, Italy, March 29-April 2
- Was nominated IUGS representative in those committees
- Participated in the Urumqi workshop, activity of the Topo-Central Asia group of ILP, and was a co-leader of the related field excursion in Tianshan, September 9-18
- Acted, as a Vice-President of the Scientific Council of the 1st YES International Congress, in the review of abstracts and selection of papers related to Deep Earth and Mineral Resources sessions

- Represented the President of IUGS at the opening ceremony of the IGMA 5000 workshop (International Geologic Map of Asia) in Beijing, China, October 24
- Represented the President of IUGS at the opening ceremony of the 1st YES (Young Earth Scientists) International Congress in Beijing, October 25, co-convened the session Deep Earth, and represented IUGS at the closing ceremony, October 29
- Attended the IUGS Bureau meeting in Lisbon, Portugal, November 21, and the IYPE events, November 19-20, and made a draft of minutes of the Bureau meeting
- Worked via e-mails with the members of the Task Group on Adhering Members, after the acceptance of the TOR during Sydney EC meeting, in order to build a questionnaire and a cover letter for distribution to NC, and propose a new template for the NC annual reports
- Exchanged with EGN coordinators, proposing them names of experts who could be reviewers for the statements on the geological content of new Geoparks Applications
- Worked with Colin SIMPSON, Councillor, on the elaboration of a draft of TOR for the cooperation IUGS-EGN-GGN
- Was involved in the arrangements for the Executive Committee meeting (planning for the excursion, excursion trip bookings).

#### **OCHIR Gerel, Vice President**

- Participation in IUGS EC meetings in Sydney, 2009, January and Lisbon, November 2009
- In 2009 participated in Young Geoscientists Congress in Beijing with two presentations: *Mineral Resources of Mongolia* and *Mongolian women in Geoscience*, and was a convener of session related to Mineral Resources.
- Participated in Annual Meeting of AGS and Canadian Geological Association in May 2009 in Toronto. Organized as a Secretary General an International Conference *Mongolian Geology-70* dedicated to 70<sup>th</sup> Anniversary of Geological Survey in Mongolia. Published and edited *Mongolian Geoscientist Magazine*
- As a head of the IYPE Mongolian National Committee organized a number of international activity and published Album *Earth Vision* and *Calendar 2009* with photos won in Photo contest of Mongolian and Italian students.
- Published book *Mongolia's Magmatic Rocks* and chapter Copper in "*Metallic Mineral Deposits*" book and *Mongolian women in Geoscience* and textbook for Bachelor students. Led three International and two domestic projects
- Reviewed IGCP projects: 502, 510, 514, 540, 565, and 557 as an IGCP Earth Resources Group member.
- Reviewed reports of the Geochemical Society (GS), The Association of Applied Geochemists (AAG), Society for Geology Applied to Mineral Deposits (SGA), International Association of Geochemistry (IAGC), International Association of the Genesis of Ore Deposits (IAGOD), Society of Economic Geologists (SEG), and Meteoritic Society (MS).
- As a leader of Mongolian IAGOD National Group, and member of EC of the Mongolian Geological Society introduced the IUGS role and activity in Mongolian TV, in lectures for students and geologists, published in *Geology* magazine.
- Established Task Group on Affiliated Organizations (see separate report).
- Pending task: to complete an ARC on COGE

#### **Ezzoura ERRAMI, Councillor**

During the 2009, I participated to all the discussion and the decisions concerning IUGS matters via e-mail. I was in regular contact with the ICSU Regional Bureau of Africa and I disseminate all the information I have received from them. As I am also supposed to take care of the relation between IUGS and UNESCO Cairo Office and Nairobi Cairo Office, I am in contact with both offices. As there is no Earth Sciences program specialist in Nairobi office, I am waiting that the new program specialist be nominated. The Cairo office is not sending any information concerning their activities related to Earth Sciences. I also promoted IUGS in all the conferences and meetings I have attended especially at the African level by distributing IUGS brochures and also discussing with many representatives of the geological communities in Africa the possibilities to be affiliated to IUGS. I discussed with those who are already members the possibility to create their IUGS national committees (Ivory Coast and Republic Democratic of Congo). Burundi would like to join IUGS as a new member. The representative of the Republic Centrafrique promised to try to see how to convince the responsible to make his country join the IUGS family.

During the second edition of the international congress "Water, wastes and environment" held in El Jadida (Morocco) the 12<sup>th</sup> and the 13<sup>th</sup> November 2009 and the launch of the first Earth Sciences Journeys of the Doukkala-Abda region organized by the Association Civilizations Without Borders and the African Association of Women in Geosciences in collaboration with other stakeholders (25-27 December 2009), I organized with my students a booth dedicated to all the organization I am involved in including IUGS and IYPE.

I also reviewed the annual reports of the Geological Society of Africa "GSAf", the Independent Commission for Mines and Minerals (Kosovo), the Hungarian IUGS National Committee, the IUGS and IGCP National Committee of South Africa, the Association of Applied Geochemists "AAG", the International Society for Soil Mechanics and Geotechnical Engineering "ISSMGE" and the Geologische Vereinigung "GV".

**Mikhail FEDONKIN, Councillor**

No report.

**Marta Montovani, Councillor**

1. Participation as IUGS representative:

(A) 1st ICSU Regional Consultation for Latin America and the Caribbean (March 10<sup>th</sup> and 11<sup>th</sup> – Mexico, MX).

Subject: Developing Regional Scientific Programs in Priority Areas for Latin America and the Caribbean.

(B) First Regional Forum on Science and Technology for Latin America and the Caribbean (March 11<sup>th</sup> late afternoon to 14<sup>th</sup> morning - Mexico, MX).

Subject: Looking for a New Social Contract on Science.

2. Sent a E-Report on ICSU-LAC AND UNESCO meetings to Council members
3. Promoted the IYPE among the communities outreached by the Science and Technology Park (S.P. University).
4. Publication (AIPT = IYPE-BR) – CD and "print" - City Parks: Conservation and Leisure in Public Areas.

5. Tried to establish contacts with the inactive members of IUGS in Latin America during the ICSU-LAC and UNESCO meetings (Costa Rica and Cuba representatives were positive).
6. Interacted with the Brazilian organizations for speed up the yearly payment to IUGS.
7. Participated in the EC meeting in Sydney (Australia, 2009).
8. Participated in the day-to-day affair of IUGS via e-mails.
9. Promoted IUGS to the Geology and Geophysics Brazilian Societies and AGU (next meeting will be in Iguassu Falls)
10. Promoted IUGS to the Brazilian Academy of Sciences.
11. Contact from WDMAM (World Digital Magnetic Anomaly Map - Juha Korhonen – for support from IUGS (is supported by UNESCO and IUGG).

### **Colin SIMPSON, Councillor**

1. IUGS e-bulletin Editor.  
During the period August 2008 to January 2010 a total of 13 e-bulletins were produced (e-Bulletins #34 to #46). The Bulletins 34 and 35 were issued quarterly. Starting with issue #36 in February 2009 a monthly bulletin was introduced. While many items relating to forthcoming conferences, and affiliated organization notices, are received monthly the biggest task is maintaining specific IUGS news items of importance.
2. Participation as IUGS representative:  
Participated in the Global Geoparks Network (GGN) Bureau Annual Meeting held in Taishan, China, 22 August 2009 (Official IUGS Representative on the GGN Bureau). Also participated in the Conference during which the GGN Bureau meeting was held - The 3rd International Symposium on the Development within Geoparks 22-25 August 2009: Theme: "Geo-heritage Protection and Cooperation". Jacques CHARVET and I have been collaborating to prepare the TOR for IUGS-GGN/EGN Collaboration for assisting in identifying suitable geoscientists to undertake Geoparks Assessments. In early 2010 a total of 15 new Geoparks Applications each required 2 geoscientists to undertake an assessment for GGN recognition. Between Jacques CHARVET and Peter BOBROWSKY the IUGS was able to provide contact details of 29 geoscientists and I am still searching for 3 more. I will be participating in the next GGN Bureau meeting in Langkawi, Malaysia to be held at the 4th International UNESCO Conference on Geoparks 2010 from 11-16 April 2010.
3. Ad hoc Review of the IUGS Commission for the Management and Application of Geoscience Information (CGI)  
As requested at the Sydney EC meeting an Ad hoc Review of the CGI was conducted 24-25 September 2009, at the German Geological Survey (BGR) Building, Hannover, Germany. The Review Committee Members were Peter BOBROWSKY - IUGS Secretary-General (ARC Chair), Colin SIMPSON - IUGS Councillor (ARC Secretary), Jonas Satkunas - Deputy Director –Lithuanian Geological Survey, Brian Marker (Independent Consultant). The CGI Council Members participating in the Review were: Kristine ASCH (CGI Chairperson), Germany, and Ian JACKSON (CGI Secretary General), United Kingdom. The Review Report was compiled by Colin SIMPSON and passed to all Review Committee members for editing then the final version was distributed to the relevant people by the Secretary-General.
4. Involvement in IGC 2012 Australia

In 2009 Colin was appointed onto the Australian 2012 IGC Organizing Committee as the contact for the "Scientific Program International" component. This appointment was influenced by my direct contacts with the IUGS and the Australian Organizing Committee.

The Committee ACCEPTED the Vice Presidents' and the Councillor's report.

#### 4.d. Secretary General's Report

##### **Peter BOBROWSKY**

In 2009, the Secretary General's office comprised the activities of both the Secretary General (Peter BOBROWSKY) and the Assistant to the Secretary General (David Huntley). The latter resigned effective 1 Jan 2010. Both individuals were generously supported in part by the Government of Canada, Geological Survey of Canada (salary, travel, etc.).

- Both individuals participated in the 60th Annual Meeting of the Executive Committee in Sydney, Australia (Jan).
- Huntley compiled the Minutes of the 60th EC meeting from 2009, 2nd Council Meeting for IUGS/IGC from 2008 and the 2008 IUGS Annual Report.

In the role of Secretary General BOBROWSKY attended the following 2009 events:

- IUGS Bureau meetings in Paris, France (Feb) and Lisbon, Portugal (Nov)
- India NC for IGCP and Indian Geological Survey in Kolkata, India (Feb)
- IGCP Bureau Meeting in Paris, France (Feb)
- Canadian National Committee for IUGS in Montreal, Canada (April)
- ICL Steering Committee Meeting in Rome, Italy (May)
- Danxia Landform Geopark Meeting in Guandong, China (May)
- Canadian National Committee for ICSU in Ottawa, Canada (June)
- 3rd International GeoPark symposium in Taishan, China (August)
- Ad hoc review committee evaluation of CGI in Hannover, Germany (September)
- Smithsonian Institution Theme Lecturer at multiple locations in USA (October)
- IYPE Closing Event in Lisbon, Portugal (November)
- Short Course on Hazards Monitoring in Kunming, China (December)

Primary activities during 2009 included:

- Deliberations with IGCP Bureau, Board and Secretariat for financial allocations, project approvals and reporting/assessments
- IUCN liaison for World Heritage Evaluations and Volcanic Sites theme study
- Interactions/actions with all IUGS Commissions and Task Groups
- Interactions/actions with Episodes editorial staff
- Chair of IUGS Task Group (with Marita Bradshaw, Michael Leggo, William CAVAZZA) on Global Workforce Terms of Reference revision
- IUGS website development and management
- Production assistance (to Godfrey Nowlan) of IUGS flyer and brochure
- Letters of invitations for data sharing on behalf of OneGeology
- Member of the Canadian National Committee for UNESCO GeoParks
- Liaison to the Canadian Commission to UNESCO office
- Chair of ARC (with Colin SIMPSON, Brian Marker and Jonas Satkunas) on CGI
- Interactions/actions with 34th and 35th IGC LOC
- Co-Chair for IYPE SIT on Geohazards



- 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.

### **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.

#### 4.e. Treasurer's Report

### **William CAVAZZA**

#### **IUGS Financial Situation on Dec. 31, 2009**

Total income: USD 455,158.61

Expenses: USD 426,157.00

Balance: USD + 29,000.61

#### **Comments**

Total allocation for IGCP 2009 was 189,500 USD compared to 166,000 USD in 2008. During 2009 IUGS received 60,000 USD from UNESCO for IGCP, of which 5,299 USD were from IUGS 2008.

Bank and Financial Interests were: 8,055.69 USD

IUGS recovered the amount of 25,784.99 USD as fees for previous years.

IUGS has still to receive from UNESCO: 70,000 USD for IGCP 2009 and 2,450 USD for *Episodes* Dissemination 2009

**IUGS expenditures** often do not reflect the real costs. Our 2009 annual contribution of USD 23,000 to *Episodes* for editing, layout, printing and distribution, covers only a part of the actual costs incurred by the Geological Society of India, Bangalore which hosted the journal. The same holds true for the costs related to IUGS meetings, which are covered, at least in part, by the countries hosting such meetings and for a very substantial part by the parent organizations of the Bureau members (President, Secretary-General and Treasurer and their supporting staff) which cover salary and all their travel costs. These forms of support save IUGS about USD 100,000 per year. A comparable amount is further saved by IUGS having been given the continuous generous contribution of the Norwegian government to fully financially support the IUGS Permanent Secretariat in Trondheim. From January 1<sup>st</sup>, 2010, The Permanent Secretariat is hosted by the United States Geological Survey in Reston, Virginia. IUGS is extremely grateful to the Canadian, Indian, Italian, Norwegian, and U.S.A. governments for this generous support that enables the Union to invest significantly more in science development than would be otherwise possible.

## **IUGS Financial Statement for 2009 Income Adhering Organizations**

**Category 1:** Out of 69 organizations in this category, 43 are active and 25 of them paid their fees for 2009 in time; 26 organizations remain inactive. **Nigeria** went from active (pending) to active.

**Category 2:** **Kosovo** and **Tajikistan** are new members.

**Category 3:** all organizations except **Iran** and **Ukraine** paid their fees.

**Category 4:** all organizations paid their fees.

**Category 5:** the only member in the category, the Indian National Committee for IUGS (Indian National Science Academy), paid its fees

**Category 6:** all organizations paid their fees.

**Category 7:** all organizations paid their fees.

**Category 8:** all organizations paid their fees.

Of a total 121 Adhering countries 94 are active, 3 pending (have not paid dues for 3 years), 27 inactive and 70 paid the 2009 annual fees.

## **Programmes**

◆ Total allocation for IGCP 2009 was 189,500 USD compared to 166,000 USD for 2008. During 2009 IUGS received 60,000 USD from UNESCO, Paris. Additional 31,500 USD were transferred through the UNESCO Regional Offices in Jakarta and Montevideo. The International Year of Planet Earth sponsored IGCP 2009 with a grant of 50,000 USD. The Chinese Government provided 20,000 USD. All 2009 IGCP funds have been transferred to the Project Leaders.

## **Other incomes**

IUGS received from the Organizing Committee of the 34<sup>th</sup> IGC, Brisbane a contribution of USD 21,598 towards payment of capitation fee.

IUGS received from the Geological Society of London the amount of USD 10,655.40 for the publication of IUGS-related Special Volumes.

Interests: USD 8,055.69.

## **Expenses IGCP**

◆ Total expenses for IGCP were USD 197,500 including 8,000 USD for IGCP Projects 2008.

## **Joint Programmes**

◆ USD 16,002 were allocated to the following Joint Programmes: Scientific Commission on the Lithosphere (ILP), GARS and Geoparks Network.

## **Commissions, Task Groups, Committees, Affiliated Organizations**

◆ USD 108,000 were allocated to this group of IUGS bodies. The largest amount was allocated to the International Commission on Stratigraphy – ICS (USD 40,000.00).

## **IUGS Contributions**

◆ IUGS contributed USD 4,250.00 to ICSU for 2009.

**Other**

**Bologna, 31 December 2009**

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items,

The Committee ACCEPTED the Treasurer's report.

#### 4.f Permanent Secretariat's Report

Anne Dehls reported that effective January, 2010, Norway will no longer house the IUGS after 25 years. . Anne Dehls reported on the activities of the Secretariat and gave an update on the transition from the Secretariat's old home in Norway to its new home in Reston, VA, USA. All key union documents – meeting minutes and circulars from 1963 to current date have been scanned. Documents indexed from 1985 – 2008 will be available digitally. Archived documents will most likely not be necessary to access however are available if necessary. It is necessary to arrange asap the moving of seven pallets of archived information to the USA. Transferring digital documents will take about 1 week.

Richard stated that the International Staff of USGS is honored to work this closely with IUGS on behalf of Tom Cassadevall and the United States National Committee for IUGS, as well as Suzette Kimball of the U.S. Geological Survey. They also thanked Anne Dehls for her extraordinary efforts during the current transition.

President RICCARDI thanked the Norwegian Geologic Survey and Anne Dehls for their years of excellent service to IUGS. He also welcomed USGS to the meeting and expressed appreciation to both USGS and the US National Committee for hosting the Secretariat and organizing this year's meeting on short notice in a professional manner.

The Committee ACCEPTED the Secretariat's report.

### 5. ANNUAL REPORTS AND FUTURE PLANS OF IUGS BODIES

#### 5.a. COMMITTEES

##### 5.a.1. Nominating Committee (NC)

ZHANG Hongren, NC Chair, reported that 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).

As reported at the last EC meeting in Sydney, the Nominating Committee will start its work basically after the midway of the current term.

The Committee ACCEPTED the NC report.

##### 5.a.2. Publication Committee (PC)

Fred SPILHAUS, PC Chair, reported that membership on the Committee seems to be complete

now. The change of leadership and the tragedy of the death of Committee stalwart Tim Partridge made things more difficult than usual. A formal meeting has not yet been held. It is the PC intent to try to use Skype for most of the meetings so that we can be frequently in touch at minimum cost.

The current make up of the Committee is S. E. Damborenea (Argentina), M. Jayananda (India), Zhenyu Yang (China), M. R. A. Thomson (United Kingdom) and, as chair, A. F. (Fred) SPILHAUS Jr. (United States). In short at this time:

The transfer of responsibility for Episodes has moved to India. Steps have been taken with the paper publication to catch up some of the time lost during the transfer period. The Episodes web site was out of service for a time, which may have created difficulties for potential authors seeking information about how to contribute. That information is now available online. Back issues are, however, not yet available. Keeping web sites current is always a challenge. Attention to the Episodes site is needed.

It is felt that the PC needs to concentrate on improving the understandability of contributions from authors whose English language skills are not strong. This needs to be done earlier in the publication process than the Committee was involved for the two most recent issues. Thus far some niceties of format and language were sacrificed in order not to delay publication further. There are a number of areas in which the PC can assist the team in India to bring Episodes to a higher standard in clarity of text and quality of figures. At the same time, the PC can simplify the process for all.

The books program, in partnership with The Geological Society Publishing House, is rolling along. The attached report (see below) from Angharad Hills, the commissioning editor, provides details on books published and in the works. She also informs me that there is a good start in communications with the Australian side for the next Congress. Total sales for the years 2007-2009 were 1961 units with total royalty payments of approximately 5400 Euros. Publicity about Episodes and other IUGS publications to IUGS constituents and affiliated societies, as well as to interested individuals throughout the world, is in need of some more planning and attention to the results.

## **THE GEOLOGICAL SOCIETY PUBLISHING HOUSE IUGS PUBLISHING REPORT JANUARY 2010**

Twenty-one books have been published under the IUGS/GSL MOU, with three titles likely for 2010. There are five accepted titles that we hope to publish in 2011.

Two proposals from IGCP programmes have been received since the last report, one is accepted (as a Memoir) and the other is likely to be accepted shortly (as a Special Publication). No proposals have been rejected.

Three books resulted from IGC33 in Oslo, which is considerably fewer than the 11 that came from IGC32 in Florence. This is partly due to the increasing obsession with ISI Impact Factors, which affects all GSL commissioning, but perhaps also due to the Oslo organizing committee being less willing to promote the publishing agreement than the Florence one. We hope that the organizing committee of IGC34 will be more co-operative, and that they will promote the publishing agreement on the congress website. I will contact them shortly to discuss this.

As mentioned above, the fact that no new book series are being accepted into the ISI Science Citation Index means that that Special Publications do not have and cannot get an Impact Factor, and this has had a considerable impact on the Society's book commissioning. We have recently been in discussions with Thomson/ISI and we expect all Society books to be covered consistently in Web of Science from late 2010. Citation counts will be available and included in an

author's -index. We hope this will go some way to countering the lack of IF. Special Publications are covered in Elsevier's Scopus (but not our other series as they do not appear regularly enough). The Australian Research Council has decided to use only Scopus in its next research assessment, which we hope will set a trend with other research assessments!

A list of proposals received to date is given below.  
 Angharad Hills, Commissioning Editor  
 19th January 2010

<b>IUGS Titles as at 19th January 2010 Title</b>	<b>Type</b>	<b>Proposal received</b>	<b>Accepted</b>	<b>Status</b>	<b>MS Due</b>	<b>Pub date</b>	<b>C</b>
Devonian Events and Correlations	IUGS	20-Apr-04	04-Aug-04	Published	Rec'd		Au
Geological Travellers	IUGS	04-Aug-06	14-Aug-06	Published	Rec'd		Se
The Rise and Fall of the Ediacaran Biota	IUGS	24-Nov-04	19-Jan-05	Published	Rec'd		Oc
The Boundaries of the West African Craton	IUGS	14-Nov-05	14-Feb-06	Published	Rec'd		Ju
History of Geomorpholo gy and Quaternary Geology	IUGS	28-Mar-06	19-Jun-06	Published	Rec'd		Au
Communicati ng Environmenta l Geoscience	IUGS	26-Oct-06	02-Mar-07	Published	Rec'd		No
Geology and Religion	IUGS	16-May-07	17-Jul-07	Published	Rec'd		Ma
Devonian Change	IUGS	12-Apr-06	25-Jul-06	Published	Rec'd		Ma

IUGS President Alberto RICCARDI expressed his gratitude with the transition of Episodes from China to India and how quickly the process went. There are several items to consider: 1) There is not enough information on the website; 2) The Publications Committee should handle the renewal of website; 3) There is a need to upgrade the website and provide management of the papers through the website: It is very difficult to locate back issues of Episodes. It appears there are two websites. Focus should be on a host website to accept all data.

The Committee ACCEPTED the PC report.

## **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.

### **5.a.3. Strategic Planning Committee (SPC)**

Attilio BORIANI – SPC Chair– mentioned as experience the huge task of organizing scientific issues at ICSU. He was a member of the SPC in prior years and the work was not so cumbersome. The SPC sent out a questionnaire and after responses were received the Committee met to establish the groundwork for a Strategic Plan and initiated a task force. The idea being, a Strategic Plan to be set forth and proceed with a rolling modification schedule. Basically he mentioned the need of clarification on the terms of reference for the SPC before moving forward.

There followed a wide discussion:

The question was raised on the Terms of Reference as proposed by IUGS President Alberto RICCARDI, can those be changed by the SPC? Yes.

Jacques CHARVET stated that the job of the SPC should be defined by its members. Plan a meeting to agree on duties and the time involved. It is important for IUGS to relay the voice of the adhering member groups. BORIANI can make decisions. Need to be efficient. Need to meet to decide approach for work.

Christine ASCH stated that this is a huge task with enormous terms of reference; those terms should be defined by the members of the IUGS. Group meeting is necessary to determine approach.

Stan FINNEY stated that improving interactions are not goals of IUGS – need to make decisions within committees and meet to discuss long term strategies – present ideas and set up Working Group – willing to collaborate.

BORIANI suggested create new Strategic Plan within a short period of time – link among adhering bodies, commissions, committees, etc. Peter Cook is available if the task is not too long.

William CAVAZZA: There is an issue with the length of this exercise. Need to assess structure and use this as a snapshot of the organization.

Ian LAMBERT suggested moving the strategy forward recognizing it is more productive to adopt a dynamic and brief approach. Focus on the practical and doable and move forward to achieve the quick win. Younger scientists should have a view which is short, sweet, and achievable to accomplish.

Robert MISSOTTEN said that Strategy documents are things of the past and is better - prefer to produce a document that is useful and can be changed as necessary.

BORIANI suggested for members to read Strategic Plan issued 10 years ago, where there were no dreams and nothing strange. The committee could just update the document and proceed with a new questionnaire.



The Committee ACCEPTED the SPC report.

### **ACTION ITEM #3**

The new Strategic Planning Committee, Chaired by Atilio 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.

#### **5.a.4. Finance Committee (FC)**

Rapporteur: William CAVAZZA

It is informed that following the IUGS Statutes (# 44) and a recommendation (18) by the IUGS Strategic Action Plan (2000) Terms of Reference for a Finance Committee were approved by the EC, with the following primary roles: 1) Identify external financial opportunities for IUGS; 2) Propose to the EC ways to improve IUGS financial operations, including the allocation of funds in relation to the strategic priorities and missions adopted by the EC; 3) To audit IUGS finances and present a report to the IUGS Council every four years before the election of a new EC. Membership: the Committee shall consist of a maximum of three persons, of which at least one must be a former IUGS Treasurer, and shall have a Chairperson and all Committee members shall be from active IUGS member countries. Members shall be directly appointed by the EC for a maximum term of four years. Antonio Brambati, Johan Zdenek, ZHANG Hongren and Sylvi Haldorsen would be asked to be members of the Finance Committee. Committee Chair will be designated after acceptance of the proposed members.

The Committee ACCEPTED the FC report.

#### **5.a.5. Ad hoc Review Committee (ARCs)**

Peter BOBROWSKY reported that an Ad hoc Review of the IUGS Commission for The Management and Application of Geoscience Information (CGI) was done on: 24-25 September 2009, at the German Geological Survey (BGR) Building, Hannover, Germany. Ad hoc Review Committee members were: Peter BOBROWSKY - IUGS Secretary-General (ARC Chair), Colin SIMPSON - IUGS Councillor (ARC Secretary), Jonas Satkunas (Deputy Director - Lithuanian Geological Survey). Brian Marker (Independent Consultant). CGI Council Member Participants were: Kristine ASCH (CGI Chairperson) – Germany, Ian JACKSON (CGI Secretary General) – United Kingdom

Based on this Review the ARC Committee recommends the following:

1. That the IUGS continue support of the CGI activities to 2012.
2. Given the high possibility that all participants in this review will attend the 2012 IGC in Australia this ARC Committee and the CGI representatives to the ARC

(CGI Chairperson and CGI Secretary General) should reconvene early at the IGC to review the 2012 status of CGI so that recommendations on the future of the CGI beyond 2012 can be presented to the IUGS EC meeting at the IGC.

3. That the CGI Committee maintain very close links with the recently formed IUGG Commission on Data and Information (UCDI) to ensure that the geophysical sciences are aware of CGI activities and that there is a minimum of duplication of effort.
4. That the CGI Council endeavor to increase the activities of their The Multi-lingual Thesaurus Working Group to try and complete their multilingual vocabulary for the geosciences by the end of 2012 to meet the requirements of the European Commission.
5. That the CGI spearhead a multi-union ICSU grant application in late 2010.

The Committee ACCEPTED the ARC report on CGI, which will be published in Episodes. It is also decided to encourage CGI to apply at the end of this year for an ICSU grant.

#### **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.

#### **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.

The EC discussed possible Arc's to be conducted during 2010.

#### **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).

#### **5.a.6. Proposals for new IUGS Committees**

There are no proposals for new IUGS Committees

## 5.b. COMMISSIONS

### 5.b.1 . Geoscience for Environmental Management (GEM)

Peter BOBROWSKY reported that no annual report for 2009 and request for 2010 funding was received from GEM. He mentioned a Report provided by Ben MAPANI and congratulates Kevin Telmer, Gem's Chair, and support new issues they have embarked and suggests to encourage them to have greater communication with other commissions.

A discussion followed in which it is mentioned a problem of continuity in Gem's activities since last change in leadership (IGC, Oslo 2008).

### **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.

### 5.b.2. History of Geological Sciences (INHIGEO)

Alberto RICCARDI reported that INHIGEO was established by the IUGS and affiliated with the International Union on the History and Philosophy of Science (IUHPS) has 216 members from 46 countries. Publication productivity in 2009 remained high with "Geology and Religion: A history of harmony and hostility" being issued by the Geological Society of London as Special Publication SP-310 and including a collection of 32 research papers totaling 368 pages. INHIGEO members have also contributed to Episodes with significant papers of historical interest in geology as well as historical reviews of past International Geological Congresses. The annual INHIGEO Newsletter has continued for 2009 as a substantial publication with 124 pages and a newly designed cover, and was also circulated in pdf format for the first time as well as in hard copy. A new INHIGEO website was established in early 2009, providing general information about the Commission.

The annual INHIGEO conference for 2009 was held in Calgary, Canada, focusing on the historical development of significant fossil sites and of the petroleum industry. INHIGEO Members also organized two symposia on Geological and paleontological sciences in cultural contexts from the 17th to 20th centuries and on Instruments in the History of the earth sciences' at the *XXIII International Congress of History of Science & Technology* in Budapest, Hungary. Planned activities for the next three years include four Symposia (Spain, 2010; Japan, 2011; Australia, 2012) and sponsorship of two other meetings. At a request of the IUGS EC INHIGEO is participating in the IUGS 50<sup>th</sup> anniversary commemoration in 2011 with the compilation of a history of the Union. An introductory workshop on the proposal was held as part of the INHIGEO conference in Calgary in 2009. For 2009 INHIGEO income was \$ 1490 from IUHPS and \$ 4500 from IUGS. For 2010 there is a request that the same annual grant be maintained. He recommends that this active and productive commission should be supported and additional funds should be provided for the work on the book on the IUGS 50<sup>th</sup>

anniversary.

The Committee ACCEPTED INHIGEO's report.

#### 5.b.3. International Commission on Stratigraphy (ICS)

Councillor Mikhail FEDONKIN reported on ICS, and ICS Chairman, Stan FINNEY gave a presentation on the main activities of ICS.

Mikhail FEDONKIN reported that the accomplishments of ICS in 2009 and the goals for 2010 are thoroughly presented in the following annual report and the attached compilation of annual reports from all subcommissions. Having been in office for just over one year, the ICS executive (Chair FINNEY, Vice Chair Peng, and Secretary-General Bown) has installed its own approach for resolving important ICS matters, namely one that is open and democratic, addressing all matters with extended, open discussion and deliberation and deciding them with majority votes. This contrasts greatly with the previous executive in which, for example, 1) the meanings of the long-established (since 1881) chronostratigraphic and geochronologic terms "Stage" and "Age" were substantially changed and 2) the Quaternary, long shown on ICS time scale and chronostratigraphic charts, was eliminated arbitrarily without any discussion or deliberation outside of the executive nor even a vote within the executive. The approach of the present executive is best demonstrated by the manner in which the controversy regarding definitions of the Quaternary and Pleistocene were addressed. This included widely advertising and holding an open discussion session at the 33<sup>rd</sup> IGC for presentation of proposals in a setting in which all proposals and positions could be not only presented but also challenged. It was followed by submission of formal proposals, which the responsible subcommissions were directed to discuss and deliberate and then vote to approve or reject. Subsequently, the proposals were subject to six weeks of internet-based discussion before being voted on by the ICS Bureau. Such an approach is time consuming, but it ensures that all who want to contribute to the discussion can, including those who are not members of ICS. It ensures that all positions are not only presented but also challenged in order that those voting can make informed decisions. And it is the purpose of the Prague 2010-ICS Workshop, 30 May – 3 June, to further foster this approach in addressing several ICS matters of immediate and long-term concern.

The highest priority of the ICS executive is to ensure progress on the production of GSSP proposals for those stages not yet defined and moving them expeditiously towards approval and ratification. The commission was consumed this past year by the Quaternary and Pleistocene matters and the GSSP proposal for the Triassic-Jurassic boundary. No other GSSP proposals were approved by subcommissions and forwarded to the ICS Bureau for consideration. This is of serious concern. The limited progress is due in part to the remaining undefined stage (series and system) boundaries being difficult to define for a variety of reasons and the subcommissions having addressed the "easy" boundaries first. But, also, task groups for some of the undefined

boundaries have shown no signs of action for years and decades, indicating a lack of leadership in certain task groups and subcommissions, a lack of funds to complete necessary studies, and/or “passive resistance” by those opposed to decisions they personally consider to be unfavorable. These obstacles must be overcome. The ICS executive is committed to addressing them in the coming year by selectively using budget allocations to support those groups demonstrating progress, by funding field meetings to investigate candidate GSSPs, by holding subcommission chairs accountable for lack of progress, by directing subcommission chairs to replace boundary task group leaders and members, as necessary. Prague 2010-ICS Workshop provides an excellent opportunity for addressing this matter in a setting in which all subcommission chairs and a large number of other subcommission officers and members participate. Such action will demonstrate to the entire commission membership the seriousness of this matter.

The ICS executive expects all subcommission chairs to participate in Prague 2010-ICS Workshop; it encourages all other subcommission officers and members to attend; and it has invited all interested stratigraphers who wish to contribute as well as members of national stratigraphic committees. The success of the GSSP process is the theme of the workshop. Both successes and problems will be discussed extensively. A special session, restricted to subcommission chairs, will be dedicated to leadership, particularly with regard to progress on GSSPs. And several fundamental stratigraphic matters of concern (see agenda in 2<sup>nd</sup> Circular in Appendix I) will be addressed and resolved after appropriate discussion and deliberation not only within ICS but also throughout the greater community of stratigraphers. Most importantly, such a workshop in which the greater community of ICS members, stratigraphers and other associated geoscientists can participate fosters an enthusiasm and a level of participation that can never be realized when business matters are handled only by the ICS executive and within the subcommissions. It results in more efficient and effective progress; it fosters collaboration, understanding, and compromise in place of obstruction, conflicts, and controversy; and it promotes greater participation in, and respect for, activities of ICS as well as IUGS.

The ICS executive requests a substantial augmentation to its budget for 2010, primarily to fund Prague 2010-ICS Workshop. The support from IUGS has decreased significantly over the last several years, and most subcommissions report that their allocations were not sufficient to hold field meetings and to support other activities necessary for investigating and evaluating candidate GSSPs. Also, it is apparent that support for research in stratigraphy is poorly funded by national funding agencies. Where once it was held in high regard, it often is not now considered to be “cutting-edge” and innovative. ICS requests approximately the same amount (\$31,800) as it allocated to subcommissions last year (\$32,400). However, an additional \$10,000 is requested for the ICS executive to hold and distribute to those specific subcommission activities that will enable and ensure progress on GSSPs for specific boundaries (e.g., Jurassic-Cretaceous) and will foster outreach and education (e.g., website development, printing of time scales). Budget requests in almost all annual reports from the subcommissions include travel funds for Prague 2010-ICS Workshop. These amounts were excluded from the compilation of subcommission budget requests tabulated in Section 11 of the ICS Annual Report, but instead were combined into a

single amount (\$20,000) that will support the participation of all subcommission chairs. It will support air/train travel to Prague, the registration fee, and low-cost lodging in Prague. Given its location, available facilities, and planned activities, the workshop is a relatively low-cost meeting, as conceived and planned; for example, the registration fee is only US\$250. While it is understood that global economic conditions have likely reduced funding to IUGS, the importance of Prague 2010-ICS Workshop to the progress of ICS certainly justifies its funding, and, if successful, the workshop will foster greater respect and enthusiasm for, and participation in, not only the activities of ICS but also IUGS and the 34<sup>th</sup> IGC.

The Committee ACCEPTED the report and congratulated Stan FINNEY and ICS for a job well done.

#### **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.

#### 5.b.4. Education, Training and Technology Transfer (COGE)

Marta MANTOVANI reported COGE's main activities:

- 1) *Increase the geographic spread of COGE Commissioners*: Four new commissioners have agreed to serve on COGE.
- 2) *Examine efforts to produce an Earth Science Literacy document in the USA and possibilities for further development*: Funded by the US National Science Foundation, a document on Earth Science Literacy was released. The document outlines the top Earth science 'ideas'.
- 3) *Assist with the promotion of the IGEO conference in 2010*: The 2010 IGEO conference (GeoSciEd VI) being held in Johannesburg, South Africa 30 August - 3 September 2010.
- 4) *Promote the International Earth Science Olympiad (IESO)*: The 3<sup>rd</sup> IESO 2009 was recently held in Taiwan during September 14-22, 2009 at the National Taiwan Normal University. (117 participants from 17 countries registered; average age was 16.6)
- 5) *Examine avenues to work with other Commissions and other like minded bodies*. The Commission is building a list of contacts within other Commissions.
- 6) *Replace Secretary/Treasurer position within the Commission*. Supports Jennifer Nocerino, USA, as new Secretary/Treasurer of COGE. Jennifer brings experience from AGU and GSA.

COGE received from IUGS \$7,000 for 2008 and 2009 (website, phone calls etc) and small amounts to promote programs such as GeoSciEd. There is no request of funding for 2010.

Robert MISSOTTEN stated that this is an important commission especially in view of a new initiative in Africa thanks to IUGS and IGCP: He would like to encourage keeping

program in force.

The Committee ACCEPTED COGE's report

#### **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.

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#### 5.b.5. Management and Application of Geoscience Information (CGI)

Colin SIMPSON reported that the CGI Annual Report 2009 gives a detailed account of their activities and progress during 2009 and their plans and proposals forthcoming plans. The CGI is very active and the projects they developed are attracting a large international involvement. CGI maintains a detailed website which includes a "Members only" component. It now has 239 members in 64 countries across the world.

The main CGI projects are:

The Interoperability Working Group (IWG) of the CGI has continued to focus on the development and implementation of GeoSciML as an interchange format for geoscience data. GeoSciML v2 was released at the AGU Fall Meeting in San Francisco in December 2008. All materials associated with this release are available for download from the CGI website

The Multilingual Thesaurus of Geosciences and the CGI Interoperability Working Group working closely to address a number of vocabulary issues common to both groups and they will be holding an "invitation only" Science Language Workshop in 2010.

CGI continues to represent the IUGS at CODATA though delegate John Broome. The evolution and acceptance of the GeoSciML standards and its demonstration through the OneGeology initiative has generated considerable interest in the CODATA community. Of particular interest was the extensible nature of the standard and possible opportunities to use it for other data sets. (For example, usage of the GroundwaterML data exchange standard established by the groundwater community on the GeoSciML foundation continues to grow).

CGI and its members of its Council continue to be very closely involved in the development of OneGeology – the global initiative to make digital geological map data for the Earth more accessible. Currently 113 nations are participating in OneGeology and 40 of these are serving 219 datasets to the OneGeology web portal (<http://portal.onegeology.org/>).

Although the CGI does not have any formal working group concerned with geoscience metadata it was felt that it could help geoscience organizations develop their metadata implementations by providing a forum for posting work and discussions. CGI is actively involved in various continents particularly through collaboration with

agencies, and with the holding of several conferences in: Europe, North America, South America, Asia, Oceania, and Africa

The 34th IGC Scientific Program Organizing Committee has accepted the IUGS-CGI proposal to hold a Geoscience Information Symposium during the 2012 IGC in Brisbane, Australia. The symposium will be run by the CGI in conjunction with the International Association for Mathematical Geosciences (IAMG) and Geoscience Information Consortium (GIC).

In 2009 the Executive Board of the ICSU General Assembly established an ad hoc Strategic Coordinating Committee for Information and Data (SCCID) to provide ICSU with broad expertise and advice on strategic direction in the area of scientific data and information management and dissemination policy and advice on the data needs and possible solutions for existing and new ICSU programs and other international initiatives. In particular, SCCID will advise ICSU on future directions for CODATA and the World Data System (WDS). CGI member John Broome was invited to become a member of the new committee. At the first SCCID meeting in October 2009, a review of current international best practice in research data management resulted in the CGI approach being identified as best practice and targeted for further study and broader adoption.

CGI receives funding from the IUGS but no direct regular financial support from other bodies. It does however receive considerable indirect support in terms of staff hours and meetings and infrastructure facilities from the parent organizations of its Council members and organizations such as CGMW.

In September 2009 CGI was reviewed by an Arc (see above)

Kristine ASCH, CGI Chair, added that a feature of CGI is special Network Workshops. Robert MISSOTTEN stated that UNESCO distributes French & English versions of reports and is happy that CGI is working on this effort.

Alik ISMAIL-ZADEH (IUGG) added that IUGG would like to connect and work with CGI and he congratulated all on the work of CGI.

The Committee ACCEPTED the CGI report.

#### 5.b.7. Proposals for new IUGS Commissions

Jacques CHARVET suggested the formation of a group dedicated to marine geology and exploration geology.

William CAVAZZA does not like the idea of topical committees.

A discussion on standards was held. BORIANI mentioned there had been those same committees earlier within the IUGS and they were disbanded.



## **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.

### **5.c. TASK GROUPS**

#### **5.c.1. Task Group on Tectonics and Structural Geology (TECTASK)**

Jacques CHARVET reported that the year of 2009 was for TecTask a special period as the Task Group is in the process to become elevated to an IUGS commission on Structural Geology and Tectonics.

TecTask is in the process to comply with the established statutes and by-laws. At the same time it seeks rejuvenation of the commission board while striving for a balanced representation of the diversity in the global Earth Science community. The Executive Committee and the list of Officers are established. The new statutes of TecTask anticipate appointment of graduate students or postgraduates as Junior Officers and the executive committee is currently considering 3 candidates for such a position.

The major topics for 2009 revolve around training courses (Africa, ), the increase of TecTask community which accounts now about registered 850 members and activities to develop a world data base on significant outcrops (Outcropedia).

The main activities were: a symposium organized by Prof. Sudipta Sengupta on Structural Geology-Today; foundation of the Structural Geology and Tectonics Study Group of India; support of the CGMW publication "« The Changing Faces of Africa » in English; DRT (Deformation, Rheology, Tectonics) presentation and Executive Committee Meeting in Liverpool; publication of a paper, in the Indian Journal of Earth Sciences, by the digital mapping initiative of TecTask, explaining the usefulness and practical application of digital mapping; demonstration of the Trimble devices and associated software on 7 field meetings in Africa and Arabia; extension of the JEBEL initiative with a field meeting in El Wadj, Saudi Arabia, in October, focused on mapping techniques in metamorphic terrains; maintenance and expansion of the website, which hosts several links and pages related to group activities as well as a considerable collection of downloadable freeware, enriched recently by the package Noddy; expansion of the growing database Outcropedia; participation to Geo-Heritage Network, for structural sites, with the project on Cap de Creus (Spain). A Wikipedia-like environment is envisaged for the Glossary of Tectonics.

Discounts are provided to TecTask members by some journals; TecTask has made available a lump sum scholarship of 1460 Euros to support participants from developing countries to assist them in attending a 15 day field training course, in Burkina Faso. TecTask is pursuing better communication and establishment of appropriate networks among individual scientific organizations and research groups (e.g. national Tectonic Study Groups). An important role is the educational one, in the field and in the lab.

For the continuation and expansion of the TecTask's activities in 2010, an allocation of 7000 USD is requested.

The Committee ACCEPTED TecTask' report

#### 5.c.2. **Global Geochemical Baselines (TGGGB)**

Marta MANTOVANI reported that this is a Global project (geochemical database) funded by Geological Surveys and other institutions, to produce maps of chemical elements concentration in the Earth's near-surface. Highly productive. Many countries participate, Africa still absent.

Funding from IUGS was US\$ 1500/year (2003 and 2004-2008), and US\$ 4000 (2009), for promotional purposes. The IUGS ad-hoc review committee, led by Prof. Ryo Matsumoto, suggested an increase to US\$5000/year for routine operations, and that IUGS provide occasionally an influx of about US\$25000 to the Task Group for workshops in African and Asian countries. The Task Group appreciates the recognition by the review committee for the need of this additional funding and have plans to use this increased amount to hold training workshops in south-east Asia, India, or Africa in 2010 or 2011, and formally ask the IUGS to consider, the review committee's recommendation for this increased funding and officially request US\$30000 in 2010.

The Committee ACCEPTED TGGGB's report

#### **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.

#### 5.c.2. Proposals for new Task Groups

There are no new proposals for TG

#### 5.d. **ADHERING ORGANIZATIONS**

##### 5.d.1. Application for Membership

There are no new applications to be considered.

##### 5.d.2. Reports of Adhering Organizations

#### **Azerbaijan**

OCHIR Gerel informed that this very brief report includes activity of Azerbaijan National Committee of Geologists (Az.NCG) Bureau, which consists of 10 members-representatives of 6 geological organizations of Azerbaijan. In 2009 during three Bureau business meetings held. In October 2009 the 3<sup>rd</sup> International Conference of YOUNG

Scientists and Students o “New Directions of Investigations in the Earth Sciences Conference organized by Az.NCG, Geology Institute and discussed Geoinformation, Exploration of economic mineral deposits and Ecogeology. Az. NCG award for best papers received scientists attended in Contest for best scientific research paper. In the future AzNCG will participate in OneGeology initiative. As NCG makes an offer: to prepare the Program of the 34<sup>th</sup> IGC in 2012 in Australia and propose to members of IUGS to develop priority trends of geological sciences in the countries they represent. To emphasize the section in “Episodes” journal dedicates to problems of Nanotechnologies in Geology. It is noted that Azerbaijan: website could be updated

## **Canada**

Peter BOBROWSKY reported that the Canadian National Committee for IUGS (CNC-IUGS)

resides under the parent organization of CFES (Canadian Federation of Earth Sciences), an umbrella group representing almost 12 professional societies including the Geological Association of Canada, Canadian Geotechnical Society and many others. The CNC-IUGS comprises 7 individuals who are charged with managing the international affairs of the geoscience community related to IUGS. Separate sub-committees exist for IGCP (CNC-IGCP), IYPE (CNC-IYPE) and the UNESCO Global GeoPark Network (CNC-GeoParks). In 2009 Canadian scientists were leading two IGCP projects and were active in nine projects. Unfortunately Canadian funding for IGCP has now been terminated and the level of participation in future IGCP activities is expected to slowly decrease. Canada’s activities in IYPE were extensive, involving a considerable number of Canadians in the private and public sectors. A separate website was maintained where detailed accomplishments and successes are documented. This website and several successful activities will now be merged with the CFES (archived). The newly formed CNC Geoparks has developed rapidly and successfully relying on extensive collaboration with the EGN and GGN in Europe and the USA. Canada’s first Geopark proposal was submitted in late 2009. Canadian participation in the Intercontinental Drilling Program has been terminated. Finally the CNC IUGS will determine if Canada will bid to host the 2020 IGC in Canada during its annual business meeting in early May.

Following the report Alberto RICCARDI asked Why have they cut IGCP funding? Peter BOBROWSKY mentioned that the impression was that the IGCP has never had the same impact in North America as in Europe. Pat LEAHY agreed, mentioning that is the same in the US. Alberto RICCARDI asked if this Was only a problem of perception, or just scientific? Pat LEAHY stated that IGCP doesn’t get the exposure that it deserves, IGCP has changed, but not the first avenue of approach, they have been trying to promote IGCP as another avenue of funding. Rich Calnan mentioned that ion the US there is a whole new group: Tom Casadavell and they are trying to make an effort to educate the geosciences community, but there is a lack of current information. Ezzoura ERRAMI indicated that there is the same perception in Africa. B MAPANI mentioned that there are very few sources of funding, except for South Africa, that the IGCP projects have been of value, most African scientists have gained, funding is small,

but of value. Alberto RICCARDI considered that something should be done to change perception.

## **China**

ZHANG Hongren reported that The Geological Society of China (GSC), which was founded in Beijing in 1922, is a scientific and non-governmental organization of Chinese geoscientific workers, with individual membership of more than 50,000. There are established 46 scientific commissions, research institutes or working committees under GSC, covering a wide range of fields in earth sciences. Each year, GSC and its scientific commissions, research institutes and working committees conduct academic activities in various forms, including symposia, workshops, field investigations, consulting service and so on. Its permanent secretariat is based at the Chinese Academy of Geological Sciences (CAGS) and the Division of International Cooperation of CAGS is in charge of its communications with IUGS.

The Geological Society of China (GSC) pays great attention to scientific exchanges. In 2009, 28 academic meetings (4 of them were international ones) were held under the framework of GSC, for which GSC and its scientific commissions, research institutes and working committees were either sponsors, co-sponsors or organizers, with participants and submitted papers totaling over 5750 and 3000 respectively. The major ones are the following: 1) 2009 Conference of Geological Society of China; 2) The First World Young Earth-Scientists Congress 2009 (Y.E.S. Congress 2009); 3) 2009 Beijing Geo-Drilling Technology Workshop.

Publication activities included: 1) Hand-over of “*Episodes*” to India: By December 2008, China has accomplished the editorship of IUGS Journal of International Geoscience “*Episodes*” for 3 terms of 1997-2000, 2001-2004, and 2005-2008. Following the decision made by the IUGS EC at its annual meeting held in Australia in January 2009, the Journal would be edited and published by the Geological Society of India (GSI) for the period of 2009-2012. In April 2009, Dr. M. Jayananda and Dr. B. R. Krishna from GSI visited the Editorial Office in Beijing to discuss the details of hand-over of “*Episodes*” to India. According to the auditing result of the Editorial Office in Beijing made by a Chinese Auditing Agency, in the past 12 years China has contributed totally 4.80 million RMB Yuan (about 0.7 million USD) and provided working space of 200 m<sup>2</sup> for the daily operation of the Editorial Office, and 5 Chinese staffs worked for it as full-time members; 2) Online publishing of “*Acta Geologica Sinica-English Edition*”; 3) Opening of Website of Chinese Geoscientific Journals.

Activities on Popularization of Earth Sciences Knowledge: As one of the largest scientific societies in China, GSC plays an active role in disseminating scientific knowledge, particularly geological knowledge, among the public. In 2009, more than 20 exhibitions were held under the framework of GSC for geoscience popularization, covering a wide range of fields and topics such as karst science, fossil wood carving, hazard prevention and reduction, Wenchuan earthquake, the mysteries of the Earth, mineral resources, marine geology and geoparks. A poster was published on the general knowledge of natural gas hydrates and 2000 copies of the booklet were published on the application of remote sensing to land administration.

On April 22, 2009, jointly with the Ministry of Land and Resources of China (MLR) and the China Geological Survey (CGS), GSC organized a series of activities to mark the 40<sup>th</sup> Earth Day, with the theme of “Understanding the Earth, Sustainable Development”. People across China held various campaigns to raise awareness, including visiting geological museums, speech competition, TV lecture and prize-giving quiz.

Marking the 40<sup>th</sup> Earth Day in Beijing.

Following the report there was an exchange of views. Pat LEAHY remarked that China Geological Society supported the Young Earth Scientists and was interested on what was their perception of the event. ZHANG Hongren replied that YES has a long way to go and could join IUGS as an affiliated organization. Jacques CHARVET pointed out that YES was seen within the Chinese community as a big success, and that YES people were concerned about follow-up. Ezzoura ERRAMI indicated that some are experienced and some need support. Wesley HILL proposed that as next YES congress will be held in 2012 a letter could go to IUGS national committees to sponsor a young person to go Congress. Jacques CHARVET mentioned that some do this systematically. R. SAWKAR said that the: GSI has some funds. Ezzoura ERRAMI suggested to contact Affiliated Organizations.

### **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).

### **Estonia**

Alberto RICCARDI reported that the Estonian National Committee for Geology (EstNCG) acts as a national representative for IGCP and includes nine members. During 2009 the Committee had two meetings. Thanks to financial support from the Estonian Academy of Science the IUGS membership of Estonia was raised from category 1 to 2. In Here it is mentioned as very positive reception of several copies of Episodes and the distribution of the IUGS e-Bulletin, thanks to which they are well informed on IUGS activities.

The main activities of the EstNCG during 2009 were related to the termination of the IYPE, with meetings devoted to Charles Darwin and discussions in different media channels on the sustainable use of georesources and global climate change. They also published a special issue of the Estonian Journal of Earth Sciences dedicated to the results of the IYPE in Estonia, and a guidebook on geotourism.

Estonian geologists participated as members of, the IGCP Scientific Board and several subcommissions of the ICS, INHIGEO, and ProGeo. Links to IUGS, IYPE and IGCP 503 are available at [www.qi.ee](http://www.qi.ee), and the Institute of Geology of the Tallinn University of Technology is hosting the homepage of IGCP 503. In this regard it is remarked, as in 2008, that Estonia is not shown in the list of the IGCP contacts.

### **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.

### **Finland**

Alberto RICCARDI reported that the IUGS National Committee is the Finnish National Committee for Geology, which consists of 12 members representing the Geological Survey, several universities, societies and the Finnish Academy of Science and Letters. Its main accomplishments during 2009 were: the celebration of the “Day of Geology” in September which was attended by a few thousand people and activities of the Stratigraphic Committee of Finland with two working groups concentrated in editing stratigraphic guides for Precambrian and Quaternary research, with the goal of optimizing the linkage of procedures with the national database hosted by the Geological Survey of Finland. In addition the Finnish National Committee continued working in a web portal ([www.geologia.fi](http://www.geologia.fi)) under a portal Subcommittee including representatives from 4 universities and the Geological Survey of Finland, which is operated by the Finnish Museum for Natural History. The portal is in Finnish and as far I could be seen is not linked to the IUGS portal.

### **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.

### **France**

Jacques CHARVET reported that the report of the French National Committee of Geology was prepared by Dominique Janjou, Secretary General, and Pierre BARBEY, President. The National Committee comprises 120 members. In 2009, were held one General Assembly and 3 Council meetings; also 1 General Assembly, 4 Council meetings and one Board meeting of the French Federation of Geology, in which the CNFG is a founding member. In addition, a series of 25 participations in scientific meetings as IYPE representative or in regional IYPE meetings is reported.

The annual PhD thesis award was given to Samuel Toucanne. CNFG established closer contacts with other National Committees. It was very active in the actions developed through the French National Committee of IYPE. It gave support to one student for his participation in the YES Congress in Beijing.

Activities related to IUGS included: participation of the president and SG to the general Assembly of the French Committee of International Scientific Unions (**COFUSI**, Academy of Sciences) on February 10; meeting of CNFG and IUGS boards in Paris, February 17, 2009; 2009 participation of the French geoscientific community to IGCP Projects 497, 499, 503; support of ILP, in conjunction with CNFGG ; co-sharing of a booth with CGMW at the “Festival de Géographie” of Saint-Dié-des-Vosges; distribution of *IUGS e-Bulletins* and *ICSU Newsletters* to all members of CNFG and all FFG members for dispatching to the French community of geoscientists; distribution of the IYPE French NC *Newsletter* to the geoscientiscommunity.

A recent problem is the cancellation of the funds from MAEE, since 2008, used for supporting participants to international congresses.

The CNFG suggests a better communication on transversal activities of IUGS with other Geo-Unions.

A strong reorganization of the French national community of geoscientists should probably happen in the near future. The idea of merging the two main geological associations, i.e. SGF and UFG, with the CNFG has emerged; but this merging will take some time and needs efforts to be achieved, but will clearly be beneficial to all the French geological community.

### **Greece**

William CAVAZZA reported that there was no real report submitted from Greece.

The material sent was: 1) a two-page report on “Geotrails in Greece” issued by IGME, the Geological Survey of Greece; 2) a poster –also issued by IGME- on a series of maps illustrating geotrails in Greece; 3) a calendar on the designation of geosites and geoparks. There was no mention of IUGS in any of these documents.

### **Hungary**

Ezzoura ERRAMI reported that the main activities of the Hungarian IUGS National Committee were related to the International Year of Planet Earth and to the organization of the activity of IUGS-affiliated societies in Hungary. They organized the IAGA meeting in Sopron, Hungary and they are planning a Geotouristic event for 2010 to be held in the Hungarian Natural History Museum. As a pre-event, a scientific meeting was held in September in the Museum with lectures delivered by well known researchers. The committee was represented at the closing ceremony of IYPE.

### **Ireland**

Peter BOBROWSKY reported that the Irish National Committee for IUGS (INC-IUGS) resides under the parental support of the Geological Society of Ireland (GSI) and the Royal Irish Academy; the former is the Adhering Body. The GSI struck an Irish Committee for IYPE which was extremely active during the past triennium. With the closure of the IYPE internationally, the GSI plans to continue to maintain and support a number of successful endeavors including: GSI will continue its essay-based “Erratics” competition while the Dublin Institute for Advanced Studies will develop its “Seismometers in Schools” programme. The Irish National Committee for IYPE, convened by GSI, believes that as a result public awareness of the contribution and value of geoscience has been heightened, the career opportunities in geoscience have been highlighted and government agencies are more sensitive to its funding needs. It was gratifying that, based on a popular poll, the stamps issued to commemorate IYPE - and Ireland’s first circular stamps - won second prize in the “Stamp of the Year Award 2008”. GSI continues to support all international activities associated with IUGS and IGCP.

## **Italy**

William CAVAZZA reported that this role since the year 2001 was undertaken by the "Commissione CNR-IUGS". The Italian National Committee was set up by the Consiglio Nazionale delle Ricerche (CNR) in 2001. The CNR is the Italian National Agency representing Italy within the IUGS since its foundation. The Italian IUGS NC serves also as IGCP National Committee.

Two meetings were held during 2009, one in Rome and the second one in Rimini, in conjunction with the former Organizing Committee of the 32<sup>nd</sup> IGC Florence 2004, the FIST (Federation of the Italian Scientific Societies of Earth Sciences) council, and the Italian National Committee for the IYPE.

Advice and support to the FIST (Federation of the Italian Scientific Societies of Earth Sciences) has continued. Taking the opportunity of the IYPE (see below), the *Edu-Geo Project* was established jointly with the national Association of Natural Sciences Teachers. The project -based in Bologna- aims at producing virtual geological excursions for science teachers and students of the secondary schools in Italy. The offer includes tens of trips prepared and led by university teachers, links to accessible geosites and geoparks in the various Italian regions, to the national Association Geology and Tourism and to Earth science movies. The related website [www.edu-geo.it](http://www.edu-geo.it) is now operational.

Several members of the IUGS Italian NC were instrumental in the development of 200+ local and national initiatives for the IYPE. The IYPE NC of Italy is supported by the Italian Geological Survey under the aegis of the Ministry of Environment.

The IN Committee endorsed the *YES Congress* which was held in Beijing from 25 to 28 October 2009. The first Young Earth Scientist Congress arose through the care of the YES association founded by two Italian geologists David Govoni and Luca MICUCCI within the IYPE with the endorsement by the IUGS NC.

Through the IUGS NC, Italy is a permanent member of the Operational Management Group of *OneGeology* (the main flagship project of the IYPE). Italy is also involved in the *Via GeoAlpina* project. An Awareness Seminar of OneGeology-Europe was held in Italy during the nation wide Science Festival of Genua on October 29, 2009. The inaugural opening of *Via GeoAlpina* was held in Corvara, Dolomites, on 21-23 July, 2009. These activities obtained full coverage by the national TV.

The IUGS NC of Italy hopes "that the new incoming President, Alberto RICCARDI, will be able to finalize his announcement to bring to a closer involvement of the National Committees into the IUGS activity".

## **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.



## Japan

ZHANG Hongren reported that the Japanese National Committee for IUGS, as a Subcommittee of the Committee on Earth and Planetary Sciences in the Science Council of Japan. The committee for IUGS supports the activities of the sub-commissions and/or task groups related to the International Year of Planetary Earth (IYPE), International Commission on the History of Geological Sciences (INHIGEO), International Association of Hydrogeologists (IAH), Commission on the Management and Application of Geoscience Information (CGI), International Commission on Stratigraphy (ICS), International Association of Geochemistry (IAGC), International Geoscience Programme (IGCP), International Lithosphere Programme (ILP), and International Paleontological Association (IPA). Most of the activity results have been published at annual meetings and/or conferences of the earth science community, such as the Japanese Geoscience Union (JpGU), the Geological Society of Japan (GSJ), the Japan Association of Mineralogical Sciences (JAMS), and the Paleontological Society of Japan.

During this term, the Japanese National Committee for IUGS has business meetings on December, 2008, March and August, 2009, and under the auspices of the Japanese National Committees for INQUA and IUGS, a symposium on Quaternary is organized on January 22, 2010, to promote a new definition of the youngest period of Cenozoic era. In the activities related to IYPE Japan of this term, three Geoparks were accepted to join the Global Geopark Network from Japan in August of 2009. After the 1st International Earth Science Olympiad (IESO) in Korea (2007) and 2nd IESO in Philippines (2008), 3rd IESO2009 in Taiwan had been held at around Taipei from September 14 to 22, 2009. The business meetings of the Japanese National subcommission for IGCP in 2009 were held at the Science Council of Japan, Tokyo on February 25 and September 11.

The CGI subcommission will support the IUGS Subcommittee for the Management and Application of Geoscience Information (CGI) by participating in its activities, popularizing its results in Japan, and making proposals from Japan. The subcommission has a close cooperation with Japan Society of Geoinformatics as the basis of the CGI activities in Japan. The first meeting of subcommission on geochronology for IUGS Subcommittee in the 21th terms of Science Council of Japan (SCJ) was held on May 16, 2009, at International Convention center of Makuhari Messe. The IAH (International Association of Hydrogeology) subcommission for IUGS Subcommittee has hosted 36th IAH Congress at Toyama, Japan, on October, 2008. The INHIGEO (International Commission for the History of Geological Sciences) subcommission for IUGS was held in Aichi University on March 20 and in Tokyo on December 23, 2009, and discussed on the INHIGEO annual meeting held in Japan in 2011. The International Palaeontological Association (IPA) task group has established on June, 2009, as one of task groups in IUGS Subcommittee, attached on Committee for Earth and Planetary Sciences. It will support both 3rd International Paleontological Congress at London on July, 2010, and IPA affiliated international symposium which will be held during 75th years celebrated meeting of the Palaeontological Society of Japan on June, 2010.

The research environment surrounding scientists in Japan has changed due to intensifying competition to get funding and introduction of short-term employment. Scientists are demanded to have more research outcomes and to provide more public

lectures and researches to encourage youth.

### **Kosovo**

Ezzoura ERRAMI reported that the Independent commission for mines and minerals “ICMM”, IUGS adhering body since 2009 is an independent body which reports directly to the Assembly of Republic of Kosovo. It plays the role of Kosovo Geological Survey. Based on this, the ICMM has developed a range of technical programs that have enabled the acquisition of geological information as a basis for further scientific developments and possibility of increasing the further researches of mineral resources of Kosovo. It provides technical assistance to the Government on all issues pertaining to mines and minerals in Kosovo. In their report, they gave an overview about the activities of the commission without specifying the 2009 activities.

### **Lithuania**

Alberto RICCARDI reported that the IUGS National Committee is the Lithuanian National Committee of Geologists (LNCG) and includes 12 members. During 2009 the Committee had two meetings. The LNCG took active part in the scientific and outreach programmes of the IYPE. Of special significance was the publication of a special calendar for 2009 in which each month was devoted to an institution or enterprise using natural resources in a sustainable way. The calendar was produced in collaboration with the Ministry of Science and Education in Lithuania and several private and governmental institutions and was distributed to schools, institutions and the general public. Lithuanian geoscientists were active in IUGS commissions and programs, IGCP projects and INQUA commissions, i.e. ARC of the IUGS CGI, 6<sup>th</sup> Annual Meeting of GEM, 3<sup>rd</sup> Hemisphere Conference on Medical Geology, IGCP 499 “Devonian land-sea interaction: evolution of ecosystems and climate”; INQUA’s commissions on Terrestrial Processes, Deposits and History, and Paleoclimate. They also attended the General Assembly of European Geosciences Union (EGU). Lithuanian specialists have also participated of the GASH (Gas Shale in Europe) project, contributing to a database on black shale occurrences in Europe; in the project on the Precambrian structure of Baltica as a control to its recent environment and evolution; and an expedition to Afghanistan to provide assistance to the Afghanistan Geological Survey to explore the general geology and mineral resources of the Ghor province.

### **Mongolia**

OCHIR Gerel reported that the Mongolia Geological Survey (MGS) submitted informative report describing activity during 2009. MGS works in collaboration with Mongolian Society of economic Geologists, Mining Association, universities and geological Survey. Executive Committee meeting held six times. EC members participated in all geological events in the country, including TV took, etc. In 2009 MGS was sponsor, co-sponsor, exhibitor, and participant of International Conference dedicated to 70<sup>th</sup> Anniversary of the Mongolian Geological Survey, Discover Mongolia 2009 and Roundup 2009. Four issues of ‘Mongolian Geoscientist’ were published

during the year. Geosciences lectures done for geologists and secondary school children, including four TV lectures.

Sponsored and initiated IYPE activity, which includes Mongolian and Italian student photo Contest, and further publication of Album 'Earth Vision and Calendar'. Ten students were awarded and photos were exhibited twice during the scientific Conferences. Initiated establishing of Young Scientists Mongolian team and attended in the First Young Scientists Congress in Beijing. Signed Agreement with Japanese Geological Society and discussed joint program, including Geopark, One Geology, and student exchange.

### **New Zealand**

Colin SIMPSON reported that the GEOLOGICAL SOCIETY OF NEW ZEALAND (GSNZ) has approximately 800 members, representing professional, amateur and student geologists in New Zealand and overseas. The Society has 8 organized Branches around New Zealand. Their annual conference Geosciences'09 was held in Oamaru in November and was a joint meeting with the New Zealand Geophysical Society. A joint sub-committee of the GSNZ and the New Zealand Geophysical Society (NZGS) have developed a plan and proposal for the amalgamation of the two societies, potentially in 2010. GSNZ was the lead publisher, with GNS Science, of a new book commemorating the 50th anniversary of the society since 2005 entitled "A Continent on the Move – New Zealand Geoscience in the 21st Century". Over 120 geoscientists contributed to the large format book, spanning New Zealand and global geological, geophysical, geochemical and historical topics. In 2009 this book won the Environmental Section of the national Montana NZ Book Awards. During the year the Society produced 3 Newsletters and several email Newsflashes for members, and guidebooks and fieldtrip guides. They also launched a new website with on-line payment facilities for registration and product purchasing. It also has a job listing section with information to assist new graduate job applications.

### **Poland**

Peter BOBROWSKY reported that the National Committee in Poland for IUGS is the Committee of Geological Sciences of the Polish Academy of Sciences (Komitet Nauk Geologicznych PAN). The current term (2007-2010) has commenced after election in April 2007. The Committee members, who are elected in the way ensuring representation of all Polish scientific geological institutions in the Committee, serve a 4-year term. Actually, there are four commissions working in the Committee: the Commission on Stratigraphy, the Commission on Hydrogeology, the Commission on Tectonics, and the Commission on Geological Education. Their number may be subject to change.

In the year 2009 the Committee: elaborated a document evaluating achievements of all branches of geological sciences in Poland in the last 15 years; the Commission on Tectonics completed its work on the revision of nomenclature, terminology and regional subdivisions of tectonic units of Poland as presented on 1:50 000 maps and on general maps (1) without Cenozoic cover and (2) without Permo-Mesozoic cover; the results

have been published and now subject to country-wide discussion before the final proposition will be prepared; the Commission on Hydrogeology undertook various actions connected with the IHA Congress which is going to be held in Cracow in September 2010; the Commission on Geological Education was deeply involved in operation of the Polish National Committee for IYPE.

In the year 2009, in Poland, 57 conferences, symposia, and workshops were organized of which over 20 were on an international level. They were concerned with basic geology, covering almost all geological disciplines, and with many practical aspects of geology such as groundwater, remote sensing, natural hazards, soils (geochemistry, pedology), oil geology, geology in underground mining, wastes, pollutants, ecology and environment conservation.

### **Russia**

The report from Russia was received (see Appendix 5.d.2.17) but a review was not submitted by Mikhail FEDONKIN

### **Slovak Republic**

The report from the Slovak Republic was received (see Appendix 5.d.2.18) but a review was not submitted by Mikhail FEDONKIN

### **South Africa**

The report from South Africa was received (see Appendix 5.d.2.19) but a review was not submitted by Ezzoura ERRAMI

### **Switzerland**

Jacques CHARVET reported that the report from Switzerland was received electronically but it could not be downloaded.

### **Thailand**

ZHANG Hongren informed that no report was received, but an IGCP report.

### **United Kingdom**

Peter BOBROWSKY reported that the UK National Committee for IUGS (UKNC-IUGS) resides under the parent organization of External Relations Committee of the GSL (Geological Society of London). Membership dues for IUGS and other Unions are paid by the Royal Society; GSL is sharing in these costs and therefore has a seat in the deliberations. A new committee for IUGG is being formed and GSL will be part of the committee. As a result GSL will be well positioned to influence greater cooperation between IUGS and IUGG. The UK is very supportive and active in the IGCP. In 2009, more than 170 UK geoscientists from 50 institutions were involved. Fourteen (38%) of

the current 37 projects were led or co-led by UK scientists, with individual participation in 23 projects (62%). The UKNC-IUGS has remained very involved in a public lecture series entitled the Shell London Lectures during 2009. Similarly, they strongly supported (financially and morally) the YES congress in China and will continue to do so for the 2012 IGC where YES will play a large role. The UKNC-IUGS is not pleased with two issues: 1) lack of progress in the improvement of the statutes and bylaws; and 2) lack of activity in improving cooperation with the IUGG. In these and other matters, they observe a lack of information coming from the IUGS to the National Committees.

With regard to the UK NC suggestion to improve communication between the National Committees the IUGS President Alberto RICCARDI mentioned: 1) that in September 2008 a Task Group on Adhering Members, under the leadership of Prof. Jacques CHARVET, IUGS Vice-President, was created by the IUGS Executive Committee; 2) that in addition the National Committees were informed on the activities being developed by the EC through: 2 letters sent by the IUGS President on September 2008 and March 2009 (plus the present one), 2 editorials published in Episodes by the IUGS President in September 2008 and September 2009, and the monthly issues of the IUGS E-Bulletin, and that in all appropriate cases input from the NC was requested. With regard to UK NC suggestion for improvement of interaction with the IUGG, the IUGS President informed: 1) That thus far most interactions with IUGG have been developed as a working agreement within ICSU's GeoUnions framework; 2) thus, and as informed in the March 2010 IUGS E-Bulletin, IUGS and IUGG are partners in two projects supported by ICSU grants; 3) that in addition on September 1<sup>st</sup> 2009 IUGS President had a personal meeting with IUGG President, Prof. T. Beer, where the IUGS-IUGG common involvement in ILP, IYPE, ICSU, were discussed and IUGS President explored possible interactions in other fields such as marine sciences and global change; 4) that in October 2009 the IUGS President was invited to the IUGG EC meeting and Scientific Workshop to celebrate the 90<sup>th</sup> Anniversary of the IUGG, where it was represented by IUGS Councillor C. SIMPSON; 5) that IUGG was especially invited, as all other GeoUnions, to attend the 2010 IUGS EC meeting (Paris, February 22-25), and IUGG Secretary General, Alik ISMAIL-ZADEH was present at the meeting; 6) that GeoUnions agreed in a common declaration on "Natural Hazards, Risks and Disasters", based in previous documents produced by IUGS and IUGG; 7) that as an outcome of the 2010 IUGS EC, where the IUGG Secretary General was present, the IUGS requested the GeoUnions to consider the possibility to have a common strategic plan within ICSU. Finally with regard to the UK NC concerns on the Statutes the IUGS President Alberto RICCARDI pointed out: 1) that this issue was discussed at the 2009 IUGS EC meeting (Sydney, Jan 11-15, 2009), where it was decided to set up a new Task Group, and the EC was in favour to have IUGS-IGC integrated statutes, and that this information is available in the IUGS website; 2) that meanwhile the IGC Committee decided to discuss the issue of the IUGS-IGC Statutes again in a meeting to be held in Brisbane next June.

### **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.

## **5.e. AFFILIATED ORGANIZATIONS**

### **5.e.1. Applications for Affiliation**

It is informed that expressions of interest to become IUGS Affiliated have been received from two organizations:

1. European Federation of Geologists. The IUGS Secretary General sent them Application forms.
2. Indian Society of Earthquake Science. Information was sent to them but it is not clear if it was received.

### **ACTION ITEM #39**

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

### **5.e.2. Reports from Affiliated Organizations**

#### **Association of Applied Geochemists (AAG)**

Rapporteur: OCHIR Gerel

The Association of Applied Geochemists (AAG) is comprised of 500 members, ten-member Board of Chancellors and Regional Councilors. In 2009 AAG hosted its biennial symposium (the 24<sup>th</sup> International Applied Geochemistry Symposium) in Fredericton, New Brunswick, Canada. Over 300 participants including 100 students done oral and poster presentations in 14 topics and three workshops were given at symposium.

The Association Gold Medal was awarded. The Association sponsors the publication of the Journal Geochemistry: Exploration, Environment, Analysis in partnership with the Geological Society of London, and publishes a quarterly newsletter E XPLORE. The Association produces special publications and conducts short courses in applied geochemistry. Web site is well developed and regularly updated, but no links to IUGS. The AAG sponsors an annual Distinguished Lecturer Series. For 2007-2009, Dr. Kurt Kyser served lectures. The website is very informative, however provides no links to IUGS.

The Committee ACKNOWLEDGED the AAG report.

#### **American Association of Petroleum Geologists (AAPG)**

Rapporteur: Colin SIMPSON  
AAPG has not submitted a report to IUGS

#### **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.

#### **African Association of Women Geoscientists (AAWG)**

Rapporteur: Ezzoura ERRAMI

No review received. Ezzoura ERRAMI created the report (see Appendix 5.e.1.3) and felt it should be reviewed by another member.

The Committee ACKNOWLEDGED the AAWG report.

#### **Association of European Geological Societies (AEGS)**

Rapporteur: Jacques CHARVET

The prime purpose of AEGS is to strengthen the links between geological societies in Europe. This is being achieved by periodic meetings (since 1987, biennial MAEGS: Meeting of the Association of European Geological Societies), which have taken place throughout Europe since 1975. It has 31 members from 29 countries. The executive committee meets annually. 2009 was the year of the MAEGS-16, held in Cluj/Napoca (Romania) on July 9-13, entitled "Geology for society: education and cultural heritage". The meeting was successful, both in term of international participation (120 attendees from 20 countries) and in term of scientific contents (160 application for papers, 120 selected; 62 participants to the excursion to the Rosia Montana Roman mine, Hateg Geopark, Ruschita Marble Quarry). The Percival Allen medal was delivered this year, to Ed DE MULDER.

Since the MAEGS-16 was developed during the International Year of Planet Earth as an affiliated activity, the meeting provided contacts between teachers of Earth Sciences during the Session on Geological Education. A "Permanent AEGS Forum on Geological Education", a section of the new AEGS web site ([www.aegs.it](http://www.aegs.it)), is to be started by January 2010.

For MAEGS-17, the AEGS Executive Committee held in Cluj (Romania) on July 10-11, had to evaluate 2 proposals. The proposal of the Serbian Geological Society: "Geosciences in digital age" to be held in Belgrade on September 10 – 14, 2011, prevailed over a proposal from Portugal.

The Committee ACKNOWLEDGED the AEGS report.

#### **Arab Geologist Association (AGA)**

Rapporteur: Alberto 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.

The Committee ACKNOWLEDGED the AGA report.

#### **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.

#### **AMERICAN GEOLOGICAL INSTITUTE (AGI)**

Rapporteur: Colin SIMPSON

The AGI continued to be quite active during 2009 and made progress in some key areas, including education, outreach, government affairs, GeoRef, and environmental affairs. In an effort to increase communication between AGI and its member societies it created a liaison position for member society representatives and is actively working on improving the Geocalendar as a vehicle to assist in meeting coordination and promotion. During 2009 AGI welcomed The Geochemical Society as its 46th member society to the AGI federation.

The AGI has 5 main topics of focus as briefly outlined below:

*Education and Outreach Activities:* AGI completed "The Earth and You" video for elementary classrooms. AGI's High School Environmental Science curriculum was available in December 2009. They conducted leadership workshops in Houston during the summer for K-5 teachers and middle school teachers. Earth Science Week 2009, with a theme of "Understanding Climate", received funding support from numerous government and industry partners. The impact of Earth Science Week continues to grow and reached more than 20 million individuals this year. The theme for Earth Science Week in 2010 will be "Understanding Energy". AGI also received a grant from



the National Science Foundation in support of the 2010 Earth Science Education Summit to be held February 9-11, 2010, Houston, Texas. AGI sponsored an International Photo Contest in support of IYPE.

*Environmental Affairs Activities:* AGI produced 2 new books. A new Environmental Awareness Series book “Living with Unstable Ground”, and, in collaboration with the National Association of Geoscience Teachers, a new college environmental geology textbook “Living with Earth.

*Government Affairs Activities:* The Government Affairs Program (GAP) helped organize the second annual GeoCVD in September with some 75 geoscientists participating. Also in September, the AGI leadership forum focused on the U.S. Administration’s geoscience agenda and priorities.

*Information Systems Activities:* GeoRef (a geosciences research referring tool) reached digital metadata agreements with a number of partners to add information from 130 additional journals. In addition, their Mineralogical Abstracts (MinAbs) web site will be launched in mid-fall with 130,000 entries.

*Technology and Communication Activities:* A year after the transition from Geotimes to EARTH on the newsstand and globally in selected markets reader support and interest has been good. AGI reported that IUGS and UNESCO are partnering with AGI to develop a broader global workforce effort involving collaboration with other geoscience organizations around the world. The AGI led the effort to support a series of virtual roundtables held as part of the Young Earth-Scientists Congress in Beijing in October.

AGI Executive Director, Pat LEAHY, present at the Ec meeting showed a 10 minute video on AGI. This video was impressive to all in the audience and Pat LEAHY suggested that AGI may be able to assist IUGS in producing a similar product.

The Committee ACKNOWLEDGED the AGI report and thanked Pat LEAHY for his presentation and for AGI’s support to IUGS

### **Association of Geoscientists for International Development (AGID)**

Rapporteur: Marta MANTOVANI

Work is undertaken by volunteers. Projects in course are: 1) IGCP 523 (GROWNET) : internet-based project funded through IGCP/UNESCO; 2) AGID IYPE Outreach Project (“TEAM” = “The Earth and Me”): to produce simple leaflets on practical geosciences topics, published in vernacular languages, and distributed free to schools in deprived areas of low-income countries. Pilot projects are currently operating in Nigeria (for Africa) and Bangladesh (for S Asia). AGID ‘seed funding’ (\$600) for Nigeria + \$2000 raised locally allowed a considerable progress: over 4000 translated and printed pamphlets and raised 35000 Naira for transportation of schoolchildren to geological museums. In Bangladesh a well established group based in the Geological Survey is initiating the TEAM project. In addition, AGID members completed a preliminary survey of Geosciences awareness levels in Nigeria - results were presented at the AGID GeoDev conference in Bangladesh. Results are being published in the proceedings of GeoDev.

These two pilot projects should continue through 2010.  
Requires \$1000 from IUGS for 2010.

The Committee ACKNOWLEDGED the AGID report.

### **American Geophysical Union (AGU)**

Rapporteur: Colin SIMPSON

The AGU reported it now has a membership of more than 55,000, and a budget in excess of \$33 million that supports more than 5300 scientific article publications per year, with online publication of 10-20 articles daily. It's has a worldwide meetings program and their 2009 Fall Meeting, attracted more than 15,000 attendees from over 100 countries. It has outreach efforts in education, science policy, and public information.

An increasing number of scientists outside of the US are publishing in AGU journals - 53% of all papers published are by authors from other countries.

AGU sees an opportunity to play an expanding role in advancing Earth and space science and in August 2008 they launched a yearlong self-study as a prelude to a new, comprehensive strategic planning process. That process involved 12 stakeholder groups, including non-US AGU members, external partners, and allied organization partners. Among 6 proposed strategic goals is one related to helping the worldwide community of Earth and space scientists achieve its objectives via strategic partnerships with other organizations. Potential strategies include co-hosting a Web site with other scientific societies, and joining with other societies to provide sound advice for public policy worldwide.

AGU currently regards itself as an organization in transition that is looking forward to a new era of excellence in which a new governance structure is aimed at strengthening both the Union's governance and its scientific program.

At the AGU's 2010 Fall Meeting (at which more than 16,000 scientists from 73 countries are expected) more than 12 international organizations (including the IUGS) will be represented for a discussion centered on collaboration, partnerships, and alliances.

The Committee ACKNOWLEDGED the AGU report.

### **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.

### **Association Internationale Pour L'Etude des Argiles (AIPEA)**

Rapporteur: William CAVAZZA

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 2009 were directed towards activities in support of the organization of the 14<sup>th</sup> International Clay Conference (14ICC), its most important technical event, which took place at Castellaneta Marina (Italy) during June 14-20th, 2009 (see [www.14icc.org](http://www.14icc.org)). A new AIPEA Council has been elected and its constitution can be viewed at [www.aipea.org](http://www.aipea.org).

Plans for the coming year include the development of a strategy to encourage the development of existing and facilitate the formation of new national clay societies, particularly in Asia and South America. A more active involvement of industry will also be pursued. The report outlines a worldwide decline in the number of clay scientists but at the same time points to a renaissance in related sciences where clay minerals play an important role such as in chemistry and in materials science. A key focus of the next five years will be the planning and delivery of the 15<sup>th</sup> ICC which will be held in Rio de Janeiro in 2013. This location will benefit enormously from the infrastructural investment being made for the 2014 World Football (Soccer) Cup and many key Brazilian organizations have already documented their support for the 15<sup>th</sup> ICC.

The Committee ACKNOWLEDGED the AIPEA report.

#### **Balkan Geophysical Society (BGS)**

Rapporteur: Mikhail FEDONKIN

The BGS has not submitted a report to IUGS.

#### **Carpathian Balkan Geological Association (CBGA)**

Rapporteur: Mikhail FEDONKIN

The objective of the CBGA is to promote international research and education in fundamental and applied geology in the Carpathian-Balkan region. The CBGA unites the Collective members: Albania, Austria, Bulgaria, Czech Republic, F.Y.R. of Macedonia, Greece, Hungary, Montenegro, Poland, Romania, Slovakia, Slovenia, Serbia and Ukraine which have their representatives in the CBGA Council. All expenses of the CBGA are covered from the national or regional sources.

The main accomplishments in 2009 were the organizing measures for the 2010 CBGA XIX Congress (Thessaloniki, Greece, September 23-26, 2010) and an agreement between CBGA and the official journals of CBGA, *Geologica Carpatica* (Slovakia) and *Geologica Balcanica* (Bulgaria) on publishing, free of charge, issues of CBGA.

The Committee ACKNOWLEDGED the CBGA report.

**Coordinating Committee for Geoscience Programmes in East and Southeast Asia (CCOP)**

Rapporteur: ZHANG Hongren

CCOP has not submitted a report to the IUGS

**Commission for the Geological Map of the World (CGMW)**

Rapporteur: Jacques CHARVET

Several significant achievements in 2009 concern the publication of maps: 3rd edition of the Geological Map of the World, thoroughly revised, printed at the scale of 1:50 M; 1:25 M scale map printed in January to be presented at the next CGMW General Assembly in UNESCO. CGMW is engaged in the realization of two large international mapping projects: the Geological Map of Asia and the Structural Map of the Circum-polar Arctic. The 4th workshop on the International Geological Map of Asia (IGMA) was held in Beijing (October 2009). The first workshop of the Circum-polar structural map project will take place in Saint-Petersburg next April 2010. CGMW is participating in the new UNESCO initiative on Geoscience Education in Africa with the publication in November 2009 of "The changing faces of Africa. Elements of African geology", a booklet presenting a comprehensive synthesis of the geology of Africa. CGMW participated in 7 international meetings in 2009. Closer relationships have been established between the "OneGeology" project and CGMW, which is now a full member of the Steering Committee. The financial situation is sound, although the income linked to the sell of products dropped from 50 000 € in 2008 to 35 000 € in 2009, due to support from UNESCO, BRGM, INSU-CNRS. Taking into account the necessary funding CGMW must grant to representatives coming from developing countries in order to attend the next General Assembly in Paris, the financial request for 2010 is an allocation maintained at least at 4000 USD.

Representatives of the CGMW present at the meeting reported on the organization main activities. They request authorization to use the IUGS logo in the CGMW publications.

The Committee ACKNOWLEDGED the report and congratulated the CGMW for its achievements.

**ACTION ITEM #40**

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

## **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.

### **International Center for Training and Exchanges in the Geosciences (CIFEG)**

Rapporteur: Marta MANTOVANI

French (non-profit) Foundation with support from UNESCO, IUGS, BRGM, and Ministry of Foreign European Affairs: 80% supported by French governmental Agencies, 20% by other partners. Develop Geoscientific knowledge sharing between northern (Europe) and southern (Africa) countries. Operate through networks of multidisciplinary scientists. Has interface with UNESCO (Earth Sciences Education in Africa – [www.earth-science-education-initiative-africa.org](http://www.earth-science-education-initiative-africa.org)) and AEGOS (African European Geo-Resources Operation System - [www.aegos.org](http://www.aegos.org)).

2009 - Accomplishments: 1) Mawari Project (Sustainable Management of groundwater resources in the Rift System): 3 PhD defenses took place at the Universities of Brest and Poitiers (2 Djiboutian and 1 Ethiopian); 2) PANGIS (Pan African Network for a Geological Information System): first steps initiated and actions initiated in 2008 have been continued. 3) SANGIS (South East Asia Network for a Geological Information System): no funding was made available (therefore no progress was made); **4) Training activities:** Assistance provided to the Ministry of the Mines and Geology of the Republic of Guinea, is fully operational. Additional training is requested. **5) Products:** 1 new Pangea issue dated Dec. 2009; Book and CD-ROM: “*The changing faces of Africa. Elements of African Geology*” (in English and French).

Problems: Global economical crisis.

No request of financial support.

The Committee ACKNOWLEDGED the CIFEG report.

### **Circum-Pacific Council for Energy and Mineral Resources (CPCRM)**

Rapporteur: ZHANG Hongren

The Circum-Pacific Council for Energy and Mineral Resources was founded in 1972. It is a non-profit international organization of Earth Scientists and Engineers. During the last 25 years, CPC has sponsored 5 Pacific-wide conferences, 6 regional symposia and dozens of workshops in different countries. The Circum-Pacific Council on Energy and Mineral Resources (CPC) business meeting was held on April 16. Main activities were: a one-day scientific symposium sponsored by the CPC and USGS occurred on April 15 to celebrate the life of George Gryc; The Ninth Annual GeoHab Conference co-sponsored by CPC will be held in Wellington New Zealand May 4-7, 2010, on “Characterization, Quantification and Diversity of Extreme Habitats”. The next annual CPC Directors’ meeting will be held in Wellington, New Zealand May 1-2, 2010, hosted by NIWA and preceding the GeoHab conference. This meeting will focus on a new

direction to be taken by CPC, which will now include marine living resources, related to geological application for marine benthic habitat characterization, in addition to mineral and energy resources. Alternative energy evaluation, planning and sitting will also be considered as a future direction for the Council.

No financial request

The Committee ACKNOWLEDGED the CPCRm report.

### **Drilling, Observation and Sampling of the Earth's Continental Crust (DOSECC)**

Rapporteur: Jacques CHARVET

DOSECC is a not-for-profit corporation whose mission is to provide leadership and technical support in subsurface sampling and monitoring technology for addressing topics of scientific and societal importance. DOSECC, comprised of 57 member institutions, does this by serving as the link between the earth sciences and drilling technologies. In summary, it promotes a coordinated and integrated continental scientific drilling program for the earth science community. Funding for drilling projects comes from numerous international sources, including the International Continental Scientific Drilling Program (ICDP) and various national scientific funding agencies (e.g. United States, Germany, Austria, Switzerland, etc.).

The chief accomplishments in 2009 were the preparation for, and conduct of scientific drilling projects in Russia, Israel, Turkey, USA, Macedonia, Ethiopia, and Kazakhstan. The drilling project in Turkey should be completed in 2010, together with the preparation for additional international drilling projects, publication of the two scientific drilling newsletters, and publication of "Lake and Marine Scientific Drilling Manual, 2nd Edition". Drilling data and results are communicated to the Principal Investigators of each project, who then compile the data for publication using project results.

No financial data are available.

The Committee ACKNOWLEDGED the DOSECC report.

### **European Association of Science Editors (EASE)**

Rapporteur: Alberto 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.

The Committee ACKNOWLEDGED the EASE report.

### **European Geoparks Network (EGN)**

Rapporteur: Jacques CHARVET

The European Geoparks Network (EGN), an active Network of collaboration among European territories, recognized by the European Union, constitutes the European branch of the Global Geoparks Network. Its new affiliation with IUGS (obtained in 2009) will mirror the closer cooperation between IUGS and the Global Geoparks Network through UNESCO. Established in 2000, the European Geoparks Network (EGN) aims to protect geodiversity, to promote geological heritage to the general public and to support sustainable economic development of geopark territories through the development of geological tourism. Originally consisting of 4 territories, the network has been expanded to include 35 territories in December 2009, across 13 European countries. 4 new members joined the Network during 2009. A strict evaluation procedure has been settled for new applications and renewal after 4 years; it includes the visit of two experts. 6 Evaluation and 16 revalidation missions took place during 2009.

The EGN organized two meetings in 2009, in Sardinia and Portugal, where was held the 8th European Geoparks Conference with more than 350 participants; and published the European Geoparks book (176 pages). The network operates primarily by continuous electronic communication. The annual International Intensive Course on Geoparks, co-organized by the European Geoparks Network in close cooperation with the Global Geoparks Network, took place on Lesbos island, Greece, last September. The European Geoparks Week reached in 2009 its highest popularity with 121.025 visitors, and 441 events all over Europe.

The Committee ACKNOWLEDGED the EGN report.

### **European Meteorological Union (EMU)**

Rapporteur: William CAVAZZA

EMU is an active international scientific organization with close links with both academia and the industry. EMU's official journal is the *European Journal of Mineralogy* (EJM). In 2009 EMU organized a School on '*Advances in the characterization of industrial*

*minerals*' (George Christidis, Technical University of Crete, Chania, Greece, June 14-18, 2009). 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 textbook series of EMU are in print and will be published in 2010: '*Nanoscopic approaches in Earth and planetary sciences*' (F. Brenker & G. Jordan, eds.) and '*Industrial Mineralogy*' (G. Christidis, ed.). A further volume entitled '*Ion partitioning in low temperature aqueous systems: from fundamentals to applications in climate proxies and environmental geochemistry*' (Manuel Prieto and Heather Stoll, eds.) is in preparation. The Notes are connected to past and forthcoming EMU Schools, respectively. No request for IUGS funding.

The Committee ACKNOWLEDGED the EMU report.

### **Geochemical Society (GS)**

Rapporteur: OCHIR Gerel

The Geochemical Society founded in 1955 consists of 12 sustained committees, and Board of Directors with 17 scientists, includes over 3000 members from more than 45 countries. The major publications of members done in "Elements Magazine, and also "Geochimica and Cosmochimica Acta" (GCA), and are available to all GS members. Geochemical Chemistry, Geophysics, Geosystem (G-cubed) on-line journal is supported by GS and maintained by AGU. Special Publications series, Vol.8 published as a collaborative effort of the GS and SEG, and Vol. 9 published by Elsevier LTD. Reviews in Mineralogy and Geochemistry is frequently published parallel with a short course.

The Goldschmidt Conference, the major annual, international conference was held in Davos in 2009, Switzerland, and in 2010 will be held in Knoxville, TN, USA, and in 2011 in Prague, Czech Republic. The GS geochemical sessions and symposia organized for spring AGU meeting, Annual GSA meeting and the Fall AGU. GS awarded achievements in geochemistry and cosmochemistry<sup>8</sup> environmental geochemistry, organic geochemistry, etc. by several Awards. The F. Earl Ingerson Lecture annually is given at the GSA Meeting, and the Paul W. Gast Lecture is given annually at the Goldschmidt Conference.

The Website is informative and regularly updated, linked to many organizations of similar topic, but no links to IUGS. Report did not contain details of 2009 year activity, describing general information, however, additional information can be found on the website [www.geochesoc.org](http://www.geochesoc.org)

The Committee ACKNOWLEDGED the GS report.

### **Geological Society of America (GSA)**

Rapporteur: Colin SIMPSON



The Geological Society of America's mission is to be a leader in advancing the geosciences, enhancing the professional growth of its members, and promoting the geosciences in the service of humankind and stewardship of the Earth.

The GSA is one of the most active of geological societies, with significant outreach programs. Membership has reached 22,065 - the 5th year of steady membership growth (an increase of more than 25% since 2003). The GSA International Section (formerly the International Division) has members in 97 countries, representing 40+ scientific specialties and interests. The GSA 2008 Joint Annual Meeting in Houston, celebrating the IYPE, was a joint meeting between 5 other societies—*American Society of Agronomy, Crop Science Society of America, Soil Science Society of America, Gulf Coast Association of Geological Societies*, and the *Houston Geological Society*. It recorded the largest meeting in GSA history with 9,941 attending, and nearly 6,000 abstracts presented. In 2007 GSA established an office in Washington, D.C., to help promote the geosciences by cosponsoring congressional briefings on geoscience topics of special interest to Congress. More than 200 people attended the following briefings: *Disaster Mitigation: Lessons from the Great Southern California ShakeOut; Climate Change: Intersections of Science and Policy; Grand Challenges for Disaster Reduction*.

GSA student members (27% of GSA's membership), receive free online access to GSA journals (over US \$190 annual value), mentor programs, employment services, travel grants, and research funding. In FY2009, the GSA Graduate Student Research Grants Program funded 194 research proposals (a total of US\$530,425). The GSA website outreach has 10 sections attracting worldwide student interest, and the Teacher Advocate Program has seen significant growth. Mentoring programs are growing and expanding at both Annual and Section Meetings.

The EarthCache web project, provides fun and educational opportunities to the general public, has doubled in the past year, with more than 6,000 sites in 93 countries worldwide. More than a 250,000 have logged in to these sites. The EarthTrek citizen science program launched in June with over 650 participants signed up to collect data. Three science projects started in July and more projects are under development with scientists around the globe.

In 2009 GSA published 22 peer-reviewed scholarly books and continued its publication of journals: *Lithosphere*, GSA's newest journal was launched in February 2009; *GSA Bulletin*, is distributed in print and online bimonthly (online archives available from 1945); *Geology* is published monthly in print and online (online archives available from 1973); *Geosphere*, published bimonthly online-only; *GSA Today*, (the science and news magazine for members and the earth-science community worldwide). The joint quarterly *Environmental & Engineering Geoscience* is a joint effort between the Association of Environmental and Engineering Geologists and GSA.

The Committee ACKNOWLEDGED the GSA report.

### **Geological Society of Africa (GSAf)**

Rapporteur: Ezzoura ERRAMI

During 2009, the GSAf was represented in many events as AEGOS launch meeting held in Cape Town, the 37th IGCP-Scientific Board meeting at UNESCO in Paris, the

IYPE meeting of STI leaders and National Committee chairs (Africa) held in South Africa, the IYPE closing meeting (Portugal), the Pan African Parliament meeting (South Africa), and at the official launch of the Mozambican National Committee of IYPE. The Geological Society of Africa as an associate partner was represented during the four Geoeducation UNESCO initiative in Africa workshops organized in Angola, South Africa, Egypt and Senegal.

The Society redesigned its website, established Regional News Bulletins and compiled a list of Earth Sciences of African Universities and African institutions dealing with earth sciences to create a databank to be used for the UNESCO Earth Science Education in Africa initiative. The 23<sup>rd</sup> Colloquium of African Geology will take place in 2011 in South Africa.

The Financial situation of the society by December 10, 2009 is 17,959.09 USD [the total income is 7,753.54 USD (subscription and IUGS support) and the total expenditure is 1,646.24 USD (travel grants, conference support & webmaster)]. The society is very thankful for the IUGS financial support. In the report, no money is requested.

The Committee ACKNOWLEDGED the GSA report.

### **Geological Society of India**

Rapporteur: Alberto 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 1475 Life Members, 723 Annual Members, 10 Honorary Fellows and 11 Corporate Members. The report submitted by the GSI is for the year 2008-2009 which ended 31 March 2009.

During the reported period GSI published a monthly journal, two text-books, and two special publications, organized a training program on Gemology, twelve monthly lectures, one special lecture and two endowment lectures. The journal is now being published under an agreement signed with Springer (India) Pvt. Ltd. This agreement has enabled the publishing of the electronic version of the Journal for worldwide dissemination via Springer Link and also to distribute the International Print Edition outside India. A number of other activities were also developed by the GSI Northern Chapter at Varanasi, New Delhi University, Dehradun, Punjab University and Rajasthan University.

With regard to education the GSI obtained financial support from the Ministry of Earth Science to train and select students to participate in the 3<sup>rd</sup> National and International Earth Science Olympiad which was held at Taipei, Taiwan.

The GSI is also focusing on issues related to the management of surface and underground water resources, and has been also taking up the issue of supply of safe drinking water supply to all the citizens of India in various forums in furtherance of the National Water Policy of the Government of India.

The GSI Golden Jubilee Celebration was held in Bangalore and included six technical sessions with 32 presentations and the release of five special volumes and seven volumes of the proceedings of the seminars. The Golden Jubilee Year was celebrated

with a series of seminars held in different parts of India, six of which took place during the period considered by the report.

The GSI website underwent significant improvements with a continuous updating of its database, inclusion of abstracts from 1958 and full papers from 1995 onwards, uploading of old memoirs and text books. The GSI website has been linked to IUGS website.

Relationship with the IUGS has been steadily improving through the affiliation of the GSI to IUGS and through a MOU between GSI and IUGS formalizing the GSI editorial and production support to publish IUGS journal Episodes. Abstracts of the Journal are hosted in the GSI website.

For 2010 the International Dyke Conference has requested GSI to organize in India the 6<sup>th</sup> International Dyke conference. Similarly the International Kimberlite Committee has decided that the 10<sup>th</sup> IKC be held at Bangalore in 2012 under the aegis of the GSI.

Income and Expenditures for 2008-2009 amounted to 9,225,651.00 (~ USD 199,845.00). The Balance Sheet for 2008-2009 indicated Liabilities and Assets for 17,377,459.80(~ USD 375,562.00). The GSI received a grant from the Ministry of Earth Science of 2,500,000.00 (~ USD 54,154,00).

The Committee ACKNOWLEDGED the GSI report.

### **Geologische Vereinigung (GV)**

Rapporteur: Ezzoura ERRAMI

Geologische Vereinigung has 1600 members in 64 countries. In 2009 the annual meeting took place in Göttingen “Earth Control on Planetary Life and Environment”. They are providing support for students to attend meetings and courses. In 2008 the ranking of the International Journal of Earth Sciences (Geologische Rundschau) improved as reflected by journals citation index. During the GV member assembly the GV section “Sedimentology” was founded and an optional combined full membership with Deutsche Mineralogische Gesellschaft (DMG) has been decided. The society communicates with its members by GMit (Geowissenschaftliche Mitteilungen), a quarterly jointly edited with the other earth-science societies of Germany. The GV has started a new series of publications by Springer Verlag, entitled “Frontiers in Earth Sciences”.

No financial report is given and no money is requested.

The Committee ACKNOWLEDGED the GV report.

### **International Association of Engineering Geology and the Environment (IAEG)**

Rapporteur: Peter BOBROWSKY

No annual report for 2009 was received from IAEG. Only a brief regional report was received from the regional IAEG-Italy section which has little bearing on the

international activities of the large parent body. No request for funding received from IAEG.

### **International Association of Geomorphologists**

Rapporteur: Peter BOBROWSKY

No annual report for 2009 was received from IAG.

No request for funding received from IAG.

### **International Association of GeoChemistry (IAGC)**

Rapporteur: OCHIR Gerel

International Association of GeoChemistry (IAGC) sponsors scientific meetings and publications. In 2009 two very successful conferences: International Applied Geochemistry Symposium held in Fredericton, New Brunswick, Canada. IAGC organized and chaired several technical sessions and the Ingerson International Lecture delivered as the keynote presentation of the IAGC sponsored session. The IAGC Working Group on Applied Isotope Geochemistry held the 8<sup>th</sup> International Symposium on Applied Isotope Geochemistry in La Malbaie in Quebec, Canada. IAGC involved in the 2009 Geological Society of America Annual Meeting held in 18-21 October in 2009 Portland, OR, USA and sponsored the 13<sup>th</sup> Annual topic session on "Sources, Transport, Fate and Toxicology of Trace Elements in the Environment".

The Association's major monthly journal, Applied Geochemistry, and a Newsletter (published twice per year) contain publications available for all members. Some news are published in Elements.

In future plan will be IAGC sponsored 13<sup>th</sup> International Symposium on Water-Rock Interaction conference in 2010 World Heritage City of Guanajuato, Mexico.

Website is informative and updated, but no links to IUGS.

The Committee ACKNOWLEDGED the IAGC report.

### **International Association on the Genesis of Ore Deposits (IAGOD)**

Rapporteur: OCHIR Gerel

IAGOD has not submitted a report to IUGS.

### **International Association of Hydrogeologists (IAH)**

Rapporteur: ZHANG Hongren

IAH is a charitable, incorporated organization registered in the United Kingdom. IAH at November 2008 has 3850 individual members from over 140 countries. There are currently 44 National Chapters. IAH is a key partner of UNESCO in its International Hydrological Programme. The major IAH event of the year was the 37<sup>th</sup> Congress which was held jointly with the 8<sup>th</sup> Scientific Assembly of the International Association of Hydrological Sciences (IAHS) in Hyderabad, India in September. The overall theme was

“Water, a vital resource under stress: how science can help?” The convention drew just over 500 delegates from 62 countries, divided about equally between Indian and international participants. IAH, through its Commissions and Chapters, organized and co-sponsored nearly 20 groundwater related meetings around the world. IAH continued its active participation with bodies with responsibilities for water management in the UN-system. With UNESCO the most significant are WHYMAP (Hydrogeological Map of the World). Following the decision to host the World Water Forum in 2009 in Istanbul, the Association has been active in helping to shape the way in which groundwater issues are presented there. Hydrogeology Journal, published by Springer, is one of the major cited international journals dealing with groundwater issues. It is in its 17th volume and now has 8 issues per year with a target of 2050 pages annually. The IAH congress in 2010 will be held in Krakow, Poland. No financial request.

The Committee ACKNOWLEDGED the IAH report.

### **International Association for Mathematical Geosciences (IAMG)**

Rapporteur: Colin SIMPSON

The mission of the IAMG is to promote, worldwide, the advancement of mathematics, statistics and informatics in the Geosciences. Although they are a relatively small organization with 500 members their membership is truly international. During 2009, a new IAMG Section was formed in China (a Section constitutes a group of regular IAMG members with common interests usually spanning a geographic region).

In 2009 a renewed effort to support IAMG student chapters around the world was launched. The IAMG currently has 8 student chapters in: Canada (1), China (2), France (1), Germany (1), USA (3). - One of the chapters in the USA and the one in France were founded in 2009. Highlights of the IAMG's 2009 activities were: 1) the Annual Meeting held on 23-28 August 2009, at Stanford University, California, USA (Approximately 120 papers were presented in 23 sessions, plus a number of posters); 2) a renewed effort to support student chapters to promote Mathematical Geology among the younger generation; and 3) a new IAMG Section to promote Mathematical Geology in China.

Scientific publication remains the primary function of IAMG and continues to account for much of their income. The IAMG publishes 3 well-known international scientific journals: "Computers & Geosciences" with Elsevier, and "Mathematical Geosciences" and "Natural Resources Research" with Springer. They also publish a monograph series with Oxford University Press (to date 8 titles have been published with the 9th one about to be published). They also publish a series of Studies for Students, (which presently consists of 5 titles), as well as the proceedings of all their conferences, and the IAMG quarterly Newsletter that is also on their website.

The IAMG provides student travel grants to encourage students to participate in IAMG conference as well as in other conferences sponsored by the IAMG. During this year, the IAMG provided travel grants to students from India, Turkey, France, Germany, and Pakistan.

The IAMG has requesting a grant of \$5,000 from the IUGS to support travel expenses

of scientists to their 2010 Annual IAMG meeting in Budapest, Hungary, on 29 August – 2 September 2010. The funds would be used to assist scientists from developing countries to travel to IAMG 2010.

The Committee ACKNOWLEDGED the IAMG report.

### **International Association of Sedimentology (IAS)**

Rapporteur: William CAVAZZA

A global association with ca. 1,750 members from 97 countries, in 2009 IAS held the 27<sup>th</sup> IAS Meeting of Sedimentology in Alghero, Italy, 29-30 September. Some 740 participants represented 49 countries, and thirteen field-trips were run, mostly in Italy but also in France and Tunisia. Furthermore, the IAS co-sponsored conferences and workshops in Switzerland, Argentina, and Bulgaria. A lecture tour developed by Prof. Judith A. McKenzie (ETH, Switzerland) took place in Hungary, Portugal and Japan, reaching several institutions in these countries. The IAS published 7 issues of its journal *Sedimentology* comprising 2,257 pages in total. The electronic paper handling of the journal is working smoothly. *Sedimentology* is accompanied by a Newsletter, and the IAS homepage (<http://www.iasnet.org>) is regularly updated although there seems to be no mention of the affiliation to IUGS. The IAS friendship scheme for scientists and libraries in developing countries continues. In 2009, 165 individuals and 36 libraries benefit from it. The IAS Postgraduate Grant Scheme offered 25 grants, ranging from 800 to 1,000 Euros, to young researchers from 10 different countries.

No request for IUGS funding.

The Committee ACKNOWLEDGED the IAS report.

### **International Consortium on Landslides (ICL)**

Rapporteur: Peter BOBROWSKY

Since the creation of the ICL in 2001, the IUGS has been recognized as a founding NGO partner of the ICL. This non profit scientific organization comprises some 40 member bodies (surveys, universities, etc.) representing some 30 countries. The UN-ISDR, ICSU, UNESCO, FAO, WMO and other international umbrella groups strongly endorse and support this organization. In 2009 the ICL recognized several World Centers of Excellence (WCoE) under the collaboration of the United Nations University system. The ICL held its annual Board of Representatives meeting in Paris (UNESCO) in November 2009. They support about 20 international projects focused on capacity building, technology transfer and education related to reducing risk associated with landslides. They launched a full color quarterly journal with Springer now distributed to some 1500 subscribers. Much of 2009 and most of 2010 will be spent preparing for the 2nd World Landslide Forum to be held in Rome, Italy at FAO headquarters. The primary

source of income is membership from countries, although UNESCO also provides direct financial support.

REQUEST: \$12,000 USD (to support field training in developing countries; subsidize journal to developing countries and various other international projects).

The Committee ACKNOWLEDGED the ICL report.

### **International Federation of Palynological Sciences (IFPS)**

Rapporteur: Mikhail FEDONKIN

Activity of The International Federation of Palynological Societies (IFPS) in 2009 was related to the newsletter *Palynos* which was regularly published, the IFPS website, and the electronic version of the “*World Directory of Palynologists*” which was regularly updated. In 2009 IFPS welcomed back the Palaeobotanical Society, Lucknow, India and Asociacion Latinoamericana de Paleobotanica y Palinologia (ALPP).

The most important future activities are related to the 13<sup>th</sup> International Palynological Congress (IPC13) that will be held jointly with the 9<sup>th</sup> International Organization of Palaeobotany Conference (IOPC) planned for summer 2012 in Tokyo, Japan.

The Committee ACKNOWLEDGED the IFPS report.

### **International Geoscience Education Organization (IGEO)**

Rapporteur: Marta MANTOVANI

Organized: Third International Earth Science Olympiad (IESO2009) in Taipei, Taiwan, (September 14 to 22, 2009). Participants from 18 countries also visited the site of Chichi earthquake (Sept. 21<sup>st</sup>, 1999). Co-organized: International conference on GEOSCIENCE FOR GLOBAL DEVELOPMENT (GeoDev) with AGID in Dhaka, Bangladesh from October 26 to October 31, 2009. Issued two Newsletters in January and April 2009.

Events for next year: 6<sup>th</sup> International Conference on Geosciences Education (GeoSciEd VI) Johannesburg, South Africa (August 30 to September 3, 2010), Fourth International Earth Science Olympiad (IESO2010) in Yogyakarta, Indonesia (September 19 to 28, 2010), and co-organizing: Meeting of the Americas, Foz do Iguassu, Brazil (08 to 13 August 2010) with American Geophysical Union (AGU) and related associations.

IGEO is supporting the ‘Earth Learning Idea’ initiative and published one per month ideas for teaching Earth science throughout IYPE during 2009. For 2010, will be a new idea each fortnight (<http://earthlearningidea.com>). Available in Spanish, Norwegian, Italian, Chinese, and Tamil. Financial help from IUGS has been used to support delegates from the developing nations to attend various international initiatives conducted by IGEO.

Requires support from IUGS grant (amount not mentioned).

The Committee ACKNOWLEDGED the IGEO report.

### **International Mineralogical Association (IMA)**

Rapporteur: William CAVAZZA

The IMA Council meets every two years and it is scheduled to meet in August 2010; thus there is no 2009 report to IUGS. The following is a synthesis of the 2008 report.

IMA is a large international scientific organization composed of 39 adhering mineralogical societies or groups. Its activities are carried out by 11 commissions and working groups.

In 2008, the IMA commissions and working groups sponsored scientific sessions in five meetings. A major portion of IMA's activities are geared toward mineral nomenclature and classification. (During 2008, the Commission on new Minerals, Nomenclature and Classification has dealt with 64 new mineral proposals, showing a slight increase on the previous years. Members of the commission evaluate all nomenclature proposals and cast their votes on a monthly basis.) The 'Annual List of New Minerals and Changes in Nomenclature' is now available on the IMA website. This is possibly an activity which could be somehow linked to IUGS.

A new Outreach Committee was launched during 2008. Its goal is to recommend and develop research activities, useful and educative outreach materials that will be used by IMA society members, mineralogists, and to a larger extent by Earth scientists including teachers. This will help the interest in Mineralogical Sciences and complementary Earth Sciences.

No request for IUGS funding.

The Committee ACKNOWLEDGED the IMA report.

### **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.

### **International Medical Geology Association (IMGA)**

Rapporteur: Mikhail FEDONKIN

Because of the importance of geological factors on health, and the general lack of appreciation an understanding of the importance of geology in such relationships, COGEOENVIRONMENT decided in 1996 to establish an international Working Group on Medical Geology. Working Groups are established for a defined lifetime (in the order of 1 or 2 four-year terms). In March 2002 the IUGS announced that the International Working Group on Environmental Geoindicators, and the International Working Group on Medical Geology would be assigned Special Project status (Special Initiatives) and operate directly under the IUGS since. 2003.



In January 2006 IMGGA was established and has become financially independent from IUGS. In the Annual Report of 2009, no major activity organized by IMGGA has been reported. However, medical geology has been included in curricula at universities, has received several prestigious awards and has been highlighted all over the world. Several courses have been held. Numerous presentations have been held at meetings and conferences dedicated to public health, geosciences and medical sciences. No financial request.

The Committee ACKNOWLEDGED the IMGGA report.

#### **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.

#### **International Paleontological Association (IPA)**

Rapporteur: Mikhail FEDONKIN

A detailed information on the mission, membership, constitution and officers is published on the IPA web site at <<http://ipa.geo.ku.edu>>

The IPA is affiliated with the IUGS and with the IUBS, as well as with IYPE and ICZN, and with such magazines as *Lethaia* and *Geoheritage*. The IPA receives no funding from any of these organizations. The list of the IPA Corporate Members has been added by 13 national organizations from China, Czech Republic, France, India, Japan, New Zealand, Poland, Spain, United Kingdom, and United States of America. The IPA supports its web site which provides general information about the association, links to the publisher of *Lethaia* and *Fossils and Strata*, information on palaeontological symposia, and several directories and databases. Over 7,000 visits a year from all over the world prove that the IPA web site is extremely popular. Three well known electronic directories (The *Directory of Paleontologists of the World*, the *Directory of Fossil Collections of the World*, and the *PaleoLink Database*) are supplemented recently by a new electronic directory *PaleoParks: The Preservation and Conservation of Fossil Sites* (<http://ipa.geo.ku.edu:591/PaleoParks/>). The IPA established the PaleoParks Initiative to protect endangered fossils sites which are of a great scientific and educational value (15 aims and goals for this program are published at <[http://paleopolis.rediris.es/cg/CG2009\\_BOOK\\_03/Chapter1](http://paleopolis.rediris.es/cg/CG2009_BOOK_03/Chapter1)>). In 2009 the IPA sponsored two international meetings in Switzerland and Canada. A major event organized under the auspices of IPA in 2010, will be The Third International Palaeontological Congress (28 June through 3 July, London, <[www.ipc3.org](http://www.ipc3.org)>). New officers will be elected during the next meeting of the General Assembly scheduled for the Congress. The activity of IPA in 2009 should be considered as effective and useful.

The Committee ACKNOWLEDGED the IPA report.

### **International Permafrost Association (IPA-Frost)**

Rapporteur: ZHANG Hongren

Last year was a transition year for the International Permafrost Association (IPA), after the Ninth International Conference on Permafrost, held in 2008 and before the Third European Conference on Permafrost to be held in 2010.

Through a partnership with the Arctic Portal ([www.arcticportal.org](http://www.arcticportal.org)), based in Iceland, the IPA created a brand new website ([www.ipa-permafrost.org](http://www.ipa-permafrost.org)) 2009 was also a year of planning for the 2010 International Polar Year Open Science Conference to be held in Oslo.

The organizers of the Third European Conference on Permafrost, which will be held in Longyearbyen, Svalbard in June 2010 opened the registration process in October. In parallel, the IPA is planning the next International Conference on Permafrost that will held in summer 2012 in Tyumen, Russia.

No financial request

The Committee ACKNOWLEDGED the IPA-Frost report.

### **International Society for Rock Mechanics (ISRM)**

Rapporteur: Ezzoura ERRAMI

ISRM did not submit a report to the IUGS.

### **International Society of Soil Mechanics & Geotechnical Engineering (ISSMGE)**

Rapporteur: Ezzoura ERRAMI

During 2009, the ISSMGE elected a new executive committee who created three new Board Level Committees: the Technical Oversight Committee (TOC), the Membership, Practitioners, Academicians Committee (MPAC) and the Innovation and Development Committee (IDC). During the past year, the ISSMGE created a CD with an updated list of members. Five new Member Societies joined ISSMGE (Dominican Republic, Kyrgyzstan, Singapore, Tajikistan and Thailand). The society prepared a report entitled "Risk, Recognition and Reward in Geotechnical Professional Practice".

The ISSMGE organized two days International Seminars two days of lectures dedicated to its less wealthy Member Societies (Cambodia, Laos, Yangon, Ghana, Hungary, and Mozambique). In October 2009, the XVII International Conference for Soil Mechanics and Geotechnical Engineering was held with the 4th International Young Geotechnical Engineers' Conference in Alexandria, Egypt. Ten other conferences were organized under the auspices of ISSMGE in Argentina, Kazakhstan, Germany, Japan, Italy and Thailand. A conference is planned for 2012 with sister societies to draw together important contributions. The ISSMGE produces a quarterly bulletin. Since 2008 the ISSMGE is publishing the International Journal of Geoenvironment Case Histories.

No financial report is given and no money is requested from IUGS.

The Committee ACKNOWLEDGED the ISSMGE report.

### **Meteoritical Society (MS)**

Rapporteur: OCHIR Gerel

MS did not submit a report to the IUGS.

### **National Ground Water Association (NGWA)**

Rapporteur: ZHANG Hongren

NGWA It has more than 14,000 members in 60 nations to advance the science and technology of the ground water professions. NGWA is supported by dues from individual and organizational members, and by income derived from its other activities. Federal government support of various NGWA professional development initiatives tallied more than \$400,000 US. NGWA neither receives nor expects financial support from IUGS. The impact factor for *Ground Water* has been greater than the water resources category aggregate in three of the last five years.

Major Ground Water Science and Engineering Activities in 2009 were: 1) The initial NGWA Groundwater for the Americas conference convened in Panama City, Panama in June; 2) joint meeting members of the National Ground Water Association and the Ground Water Protection Council shared professional concerns and interests at the 2009 Ground Water Summit at Tucson, Arizona; 3) The Water Science and Technology Board at The National Academies has invited NGWA to assist in a review of the USGS NAWQA Program; 4) NGWA's federal government affairs program worked with more than a dozen issues important to the NGWA membership; 5) NGWA provided comments on the draft Senate bill titled "Strengthening Education and Training in the Subsurface Geosciences and Engineering for Energy Development."; 6) NGWA serves as the secretary to the Subcommittee on Ground Water of the federal Advisory Committee on Water Information; 7) NGWA serves on the U.S. National Committee of UNESCO's International Hydrological Programme and cooperates with IHP centers, including the newly formed U.S.-based Center for Integrated Water Resources Management, hosted by the US Army Corps of Engineers in Alexandria, Virginia; 8) NGWA maintains cooperative agreements with 13 foreign counterpart associations, as well as with the Association of American State Geologists, Geological Society of America, Global Water Partnership, International Association of Hydrogeologists, Source Water Collaborative, and the Water Footprint Network; 9) NGWA is a co-convener of UNESCO ISARM 2010 International Conference, December 6-8, 2010, at UNESCO headquarters in Paris.

The Committee ACKNOWLEDGED the NGWA report.

### **The European Association for the Conservation of the Geological Heritage (ProGEO)**

Rapporteur: Peter BOBROWSKY

No annual report for 2009 was received from ProGEO. Instead a copy of the ProGEO Newsletter Number 4 for the year 2009 was submitted. ProGEO normally publishes 4 issues of the Newsletter annually to its members. This single issue refers to a geological fieldtrip in October to Albania and Kosovo, a new GeoTrail publication for Greece, and the upcoming 6th International Conference on Conservation of Geological Heritage scheduled for May 29th-June 2nd, 2010 in Hagen, Germany. The Newsletter also notes several upcoming meetings in GeoTrends in Serbia (June), ProGEO Regional Working Group meetings in Spain (September) and Poland (September) and a field school in Greece (October).

No request for funding received from ProGEO.

### **Society of Economic Geologists, Inc. (SEG)**

Rapporteur: OCHIR Gerel

SEG submitted a very good report describing membership, new officers, conferences, field trips and short courses, SEG lecturers, SEG awards, publications and education. Established in 1920, SEG now have membership totaled 5,404, and 4 active Student Chapters. In report are well analyzed all categories of membership. In 2009 SEG organized, participated and sponsored very successful 8 symposiums and forums, 3 exhibitions, 9 short courses and 1 field course, including the 2<sup>nd</sup> European SEG Student Chapter Conference hold in Budapest. Eight issues of *Economic Geology* and four issues of the *SEG Newsletter* were published during the year. A launch of e-docs (largely chapterized books) took place in December. Sales of SEG publications described in detail. SEG lectures that include International Exchange lectures, Thayer Lindsley Lecturer Regional Vice President Lecturer Distinguished Lecturer Honorary Lecturers presented lectures at the universities, symposiums and companies. SEG award presented to 6 distinguished scientists. The SEG Foundation (SEGF) and the SEG Canada Foundation (SEGCF) received a total of 97 student research grant applications. SEGF awarded 42 grants for a total US\$100,000, while the SEGCF awarded 13 additional grants for CDN\$34,500. Research Grant awardees attend 30 different universities in 10 countries. Very good regularly updated website, but no link to IUGS.

The Committee ACKNOWLEDGED the SEG report.

### **Society for Sedimentary Geology (SEPM)**

Rapporteur: William CAVAZZA

Both SEPM flagship journals –*The Journal of Sedimentary Research* and *Palaios*– increased their Impact Factors in comparison to 2008. In 2009 a total of five new books are either published or in the process of being published and the pipeline for future books continues to be well filled. SEPM has now instituted an online submission and review process, similar to the journals for its books. One of the biggest accomplishments this year was the digitization and CD production of essentially all of their past book publications, which includes some 150 books.

In 2009, SEPM held its Annual Meeting in Denver, CO, jointly with A.A.P.G. (American Association of Petroleum Geologists) and was involved in three major research conferences, two in Houston and one in Chile. SEPM also organized a number of short courses and fieldtrips. The SEPM Annual Report is generic and does not mention IUGS. No request for IUGS funding.

The Committee ACKNOWLEDGED the SEPM report.

### **Society for Geology Applied to Mineral Deposits (SGA)**

Rapporteur: OCHIR Gerel

Society of Geology Applied to Mineral Deposits (SGA) presented very detailed report including history, organization and membership, meeting held in 2009 and future plans, activity related to IYPE, SGA council members in 2009 and 2011.

In 2009 10<sup>th</sup> SGA Biennial Meeting – SGA contribution to IYPE held in August 20-23, Townsville, Australia. Three business meetings held in Wurtzburg and Townsville, Australia. SGA co-sponsored Geology Society of London Mineral Deposit Special Interest Group Research in progress Meeting, January 6-9, 2009 and XXVIII UUNESCO-SEG-SGA Latin American Course on Metallogeny held in May, 19-26 Bello Horizonte, Brazil, and Ore Deposit Models and Exploration Workshop (SGA-SEG) in November 4-8, 2009 in Beijing, China. The 11<sup>th</sup> SGA Biennial Meeting will be hold in Chile, and GA will sponsor 4 meetings in 2010. Major publication is Mineralium Deposita, and SGA News (published twice per year). SGA Award for Best paper, Barrick Young Scientist Award, Best Student Oral and Poster Presentation, SGA-Newmont Gold Medal received number of scientists and students. The SGA website is well developed and updated, but has no link to IUGS.

The Committee ACKNOWLEDGED the SGA report.

### **Geological Society of France (SGF)**

Rapporteur: Jacques CHARVET

The report was provided by the Deputy Manager Françoise Peiffer-Rangin. SGF is a non-profit association, born in 1830, whose mission is to promote Earth Sciences for addressing topics of scientific and societal importance. It is composed of 1100 members, 1600 subscribers for one of its publications; a board of 24 people manages the institution. The SGF interfaces with world wide projects by the participation in the Geoscienceworld aggregate, and organization of international meetings.

The chief accomplishments in 2009 include: reorganization of the house Maison de la Géologie with the French Federation of Geology (grouping 19 other societies); publication of the Bulletin (6 issues), Géochronique (4); Books (Vuibert) 2 collections; Books (Springer): collection Lecture notes in Earth Sciences and collection Frontiers in Earth Sciences. A critical milestone to be achieved next year (2010) is the merging of three major French geological societies (SGF-UFG-CNFG). SGF's anticipated objectives for the next five years include completion of many publication projects,

increased education in Geosciences, protection of our Earth heritage, increased interaction between the academic and industrial communities and outreach with the international scientific community.

The Committee ACKNOWLEDGED the SGF report.

**Italian Federation of Earth Sciences (FIST)**

Rapporteur: William CAVAZZA

A report was received (see Appendix 5.e.2.49)

The Committee ACKNOWLEDGED the FIST report.

**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.

**6. INTERNATIONAL GEOLOGICAL CONGRESS (IGC)**

**6.a. 33rd IGC in 2008 (Oslo)**

Alberto RICCARDI reported that the 33<sup>rd</sup> IGC is now finished and the minutes have been circulated. Peter Bobrowski added that the final draft minutes were approved. The General Proceedings are almost complete and will be released within a few weeks.

**6.b. 34th IGC in 2012 (Brisbane)**

Ian LAMBERT reported on the preparations for the 34<sup>th</sup> International Geological Congress (IGC) Brisbane 2-10 August 2012 (AUSTRALIA 2012)

The legal entity responsible for the 34<sup>th</sup> IGC (AUSTRALIA 2012) (Brisbane. 2-10 August 2012) is the Australia Geoscience Council Incorporated (AGC), the main body of Australia's geoscientists comprising the Presidents or CEO of eight geoscience related societies. The goals accepted by the AGC for the 34<sup>th</sup> IGC are: 1) International exposure to the geology of the Oceania region and to the high scientific standards and accomplishments of the region's geoscientists; 2) An important opportunity for interdisciplinary involvement in fields of geoscientific endeavor outside those usually canvassed at many specialized (and thus somewhat inward looking) conferences; and 3) Delivery of a reasonable return to the member societies of the AGC and to the AGC itself.

Geoscience Australia (GA) has made a strong commitment to AUSTRALIA 2012. The President and Secretary General of the AUSTRALIA 2012 Organizing Committee are from Geoscience Australia, and GA is also contributing to national and international promotion of AUSTRALIA 2012 and supporting for several of the major activities during the Congress. The primary responsibility for organizing the event rests with the core Organizing Committee (OC), which includes representatives of the larger member societies of the AGC. Individuals on the OC have responsibility for particular elements of the congress (e.g. Scientific Program; Finance, Exhibitions, Field Trips, Outreach, etc.). The OC meetings will set the general directions for each element, and the responsible OC member will chair the committee which will develop the element, under broad guidance of the OC. Organizing Committee members are representatives of the various Australian Universities, Geoscience Council societies, and New Zealand. The State and Northern Territory geological surveys and GNS New Zealand are contributing, particularly in organizing many of the field trips. Together with GA, they are also contributing financially to Australia 2012. Queensland Events Corporation, an agency of the Queensland Government, is providing financial support. An experienced Brisbane-based Professional Conference Organizer – Carillon Conference Management – has been appointed to work with the Organizing Committee.

The Scientific Programme, under the theme “Unearthing our Past and Future”, will encompass the contributions of geoscience to societal needs and sustaining planet Earth. Each of the 7 full days of the congress will comprise a plenary ‘theme-of-the-day’ session on major contemporary issues, followed by up to 30 concurrent symposia on a wide range of geoscientific topics. Australia’s experience in developing a strong and sustainable mineral and energy resources sector will underpin a program emphasizing future mineral and energy supplies. Other major themes, which reflect major challenges for countries in the Oceania region and more broadly, will be climate change and its impacts on natural resource management and communities, and understanding and mitigating geohazards. There will also be an ‘Information Supersession’ comprising several symposia on geoscience information and standards.

The 34<sup>th</sup> IGC is planning about 30 pre- and post-Congress field trips in Australia, New Zealand, Malaysia and New Caledonia/Vanuatu. There will also be a range of one-day tours available during the conference. The tentative list of technical field trips is already available on the IGC website.

Expert workshops and short courses are also proposed, which in large part will reflect Australian and New Zealand international assistance objectives, where feasible, so as to attract funding to support attendance by delegates from developing countries. These workshops could include: sustainable mining; carbon sequestration; groundwaters; and geohazards. The number and nature of these will depend on the availability of funding support.

A large GeoExpo which will occupy two of the exhibition halls is planned. In addition, a major energy, petroleum and minerals industry exhibition is planned in one of the halls during the first half of the Congress, to coincide with the high profile minerals and petroleum symposia. A sponsorship prospectus has been developed and printed, but systematic distribution will not take place until early in 2010.

The President and Secretary General of the AUSTRALIA 2012 Organizing Committee,

as members of the International Geological Congress Committee (IGCC) are organizing an IGCC meeting in 2010, to be held within the Brisbane Convention and Exhibition Centre (the venue for the 34<sup>th</sup> IGC).

The 34<sup>th</sup> IGC Organizing Committee is expecting that the IUGS, as the scientific sponsor of the IGC, will see that the involvement of IUGS' Commissions, Joint Programs, Task Groups, Initiatives and Affiliated Organizations is maximized at the 34<sup>th</sup> IGC in Brisbane. A letter inviting their participation was sent in November, through the IUGS secretariat. This information has also been posted on the IUGS website. It would also be appreciated if members of the IUGS Executive Committee continue to take whatever opportunities that arise to encourage groups and individuals to attend, including those who might not normally consider the 34<sup>th</sup> IGC.

In the first half of 2010, Geoscience Australia will pay another advance on the 34<sup>th</sup> IGC capitation fee to the IUGS. It would be appreciated if the IUGS Treasurer could confirm the advances made against capitation fees.

As summarized, the organization of the 34<sup>th</sup> IGC is progressing well in all fronts, and the AUSTRALIA 2012 Organizing Committee should be congratulated.

IGCC will meet in Brisbane and conduct a short field trip on 24-25 June 2010.

Following the report there was an exchange of comments. MOURI Hassina stated that the Geological Society of Africa will definitely participate. Robert MISSOTTEN noted that this IGC will be of prime importance to IGCP as it will fall during the IGCP 45<sup>th</sup> anniversary.

Alberto RICCARDI commented that there are only two years until IGC in Brisbane and that the IUGS should do everything to be fully involved in the IGC. All IUGS bodies should be moving in this same direction. We need to promote the meetings of National Committees. Affiliates and Commissions often meet during IGC's, but they should also be involved in the programs.

The Committee THANKED Ian LAMBERT for his oral presentation on 34<sup>th</sup> IGC

#### **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.

#### **6.c. 35th IGC in 2016 (Cape Town)**

Danie BARNARDO gave an excellent slide presentation on early preparations for the 35<sup>th</sup> IGC, including both the traditional IGC logo and a new logo designed for the South African IGC. The theme will be: Dance with the Earth: GYANGOLTHLABA. The new logo is based upon a traditional rock painting.

The legal entity in South Africa will be a non-profit company. CGS will approach the S. African Secretary to secure approval through the Ministry of Mines. Only then can a MOU with IUGS be signed. Committees and subcommittees are being formed, along



with a provisional budget and proposed field trips. The IGC will be held at the Cape Town International Convention Center (CTICC). This can handle 40 concurrent sessions, 8,000 seats for the opening session, and 15,000 square meters of exhibit space. The dates will be 3-12 August 2016.

Projected income is 918,200.

Projected Expenses is 907,000.

Alik ISMAIL-ZADEH (IUGG) commented that IUGG held a meeting there and the location was superb but the turnout was lower than expected.

The Committee THANKED Danie BARNARDO for his oral presentation on 35<sup>th</sup> IGC

#### 6.e. IGC Statutes

Alberto RICCARDI reported that currently IGC statutes are those that were approved in Florence in 2004. They must be followed until there is a change that has been approved by the IUGSIGC Council.

#### 6.f. International Geological Congress Committee (IGCC)

Alberto RICCARDI reported that the newly constituted IGCC is still being filled in. Any proposal to change the statutes will have to originate with the IGCC. The IGCC will discuss next steps when IGCC convenes in Brisbane in June, 2010.

The German National Committee has submitted a proposal to deal with a perceived problem with future congresses of IUGS and IUGG. In 2011, IUGG is scheduled to meet in Australia and IUGS meets the following year at the IGC in Brisbane. The proposal is that IUGG and IUGS evolve to a biannual cycle and coordinate venues. The initial response is that such a proposal would require some time since the statutes of all three organizations would have to be modified.

Alik ISMAIL-ZADEH of IUGG offered that German NC for IUGG did not submit a proposal. IUGG cannot change the meetings that are already planned, but concedes that in the future there could be a joint Geoscience World Congress. In the meantime, General Assemblies are required, which take time.

## 7. UNESCO

### 7.a. Earth Sciences at UNESCO

Robert MISSOTTEN of UNESCO expressed his happiness at hosting the current EC and having the opportunity to interact with his distinguished colleagues. He designated two staff members to address specific topics (below).

In October, UNESCO hosted a general conference. There is much more emphasis on science. There is recognition that science is underfunded. In her acceptance speech, the new Director General called for an increased recognition of science, more

multidisciplinary science and declared UNESCO as the home for science in the UN. A science Council will be established. We can foresee in the future closer cooperation.

#### **7.b1. IUGS-UNESCO International Geoscience Programme (IGCP)**

Margarete PATZAK reported on IGCP (see Appendix 7.a.). IGCP continues to focus on five topics as outlined on a submitted report. The quality of projects is increasing and the number of projects getting done which ensures funding. Mineral Resources and Groundwater proposals are required. UNESCO will fund to the same extent than before. IGCP will receive additional support from IYPE and the government of China. In addition Vivi Vajda (Chairman of the IGCP Scientific Board) has contacted Swedish overseas aid (SIDA) and as a result Sweden will fund IGCP with 100,000 USD. She also mentioned that the IGCP Secretariat supports Geochemical Mapping proposal from China and that the IGCP Scientific Board supports the initiative on Africa.

Peter BOBROWSKY said that it is good news that IGCP will get enhanced funding from Sweden, whilst IUGS will continue support of 60,000 USD, and additionally 20,000 USD will be provided by China and 50,000 by IYPE. With regard to the IGCP Guidelines he remarked that

They were restructured two years ago and a new template was adopted. The issue was discussed with the IGCP Scientific Board, and they are supportive of modifying the structure of the guidelines. We expect something from the Scientific Board soon.

Robert MISSOTTEN endorsed this suggestion. We will give the Board 3 months and there will be new reporting and application template.

The Committee THANKED Margaret PATZAK for his oral presentation on IGCP

#### **ACTION ITEM #65**

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

#### **7.b.2 UNESCOs Initiative on Africa**

Sarah GAINES presented a PowerPoint on UNESCO's Initiative on Africa, an initiative that came out of IYPE. UNESCO believes geoscientists have an important role to play. 5 workshops have been arranged: hosted at universities and geological societies with many different partners: GSA, CIFEG, AAWG, Royal Museum of Central Africa, IYPE, IUGS. SG states waiting for recommendations from all the workshops. This is a 10 or more year project. A few recommendations in Action:

1. Held at Earth System and Stewardship Sciences.
2. New networks (MAWARI, Africa Array)
3. Outreach activities (museums, press, IYPE, competitions).

4. Geoheritage (Geoparks, Africa Alive Corridors)
5. IGEO meeting to include training – Ian McKay. Geoscience Olympiad at next meeting in August.
6. International two-way researcher exchanges
7. YES Africa roundtable symposia at the CAG2011. Network active and strong.
8. Coordinate work on Geoinformation
9. Reinforce and increase IGCP national committees
10. Promote Young Scientists with IGCP

Alberto RICCARDI opened the floor to discussion. He remarked that IUGS is a partner in this initiative, together with UNESCO, CGMW, CIFEG, GSAf and AAWG. The IUGS is most interested in promoting Earth science education and geoinformation, and in the transference of knowledge and information from developed to developing countries. Hassina MOURI: Aware of problems faced by geosciences in Africa. This effort holds many interesting recommendations. Let us know what UNESCO actions will take to improve the situation.

Robert MISSOTTEN: Five Workshops have taken place. Recommendation will be produced and distributed. A round table will take place as to how to implement the recommendations (discussion and fundraising).

Kristine ASCH: Have heard some of this at GiRAF meeting. Fits well with GiRAF

Peter BOBROWSKY: Good that UNESCO is involved with geosciences education. We have CGI and GSAf. He recommends that IUGS support the Africa Geoscience Initiative and take a leadership role.

Hassina MOURI: Supports this recommendation. IUGS should contribute and help with practical aspects.

Mikhail FEDONKIN: IGCP can contribute, and the recommendations could go to project leaders.

Ezzoura ERRAMI: IUGS normally has to be not just a nominal lead but to participate at the Workshops. IUGS was not present at the last 5 workshops.

Alberto RICCARDI: Thanks UNESCO for this initiative in Africa. IUGS is concerned with problems of education and capacity in Africa as well as in Latin America. With Africa, it is necessary to have more coordination between GSAf, AAWG, Central African Museum, IUGS, CIFEG, CGMW and IYPE. Thus far coordination has been loose:

Motion: That there will be coordination body of these groups, more information circulating. Ezzoura ERRAMI as liaison.

Motion supported.

Motion: IUGS representative to attend the next UNESCO meeting in October.

Motion supported.

Motion: In order to stress the exchange the researchers, it is necessary participation from National Committees and affiliated organization. Identify those that can help with exchange between developed and developing world. SELECT those national committees and affiliated organizations.

Motion supported

Ezzoura ERRAMI: suggest that parties meet today

Hassina MOURI: GSAf would like to be part of this.

Ezzoura ERRAMI: Yes all the partners.

Alberto RICCARDI: GSAf made a goal to have five centers of excellence in each region of Africa. Only a few countries applied. Only the proposal from Egypt on Hydrogeology, can be considered. More feedback from African countries is required.

Hassina MOURI: Yes, we did a quick call due to the short time and not all could come up with proposal. But the University of Johannesburg proposed a CoE in Analytical Facilities. If we have more time we can get more proposals. We can consider those institutions with infrastructure in place. We will discuss this further tomorrow.

Ezzoura ERRAMI: It seems that there is an overlap between UNESCO and GSAf. The organizations should work together. See what all the partners can do.

Danie BARNARDO: What is the relationship between UNESCO and EU? His country is involved with IGOS, which plans an observation system in Africa. There appear to be an overlap between UNESCO and EU.

Robert MISSOTTEN: In UNESCO's efforts we are participants in IGOS; Giraf, African and European Unions. The links are there. I will go into detail later personally.

Alik ISMAIL-ZADEH (IUGG): Earth Science of UNESCO, including Geohazards, hydrogeology, involves many sciences not just solid earth. We are all involved in UNESCO, but our visibility is not there.

Robert MISSOTTEN: We are working in that direction. In April, I will meet with Geounions.

The Committee THANKED Sarah GAINES for his oral presentation on UNESCO's initiative on Africa

### **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.

### **ACTION TEM #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).

### **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.

## **7.c. Geoparks and Geoheritage**

### **7.c.1. Global Geopark Network (GGN)**

Colin SIMPSON reported that IUGS President Alberto RICCARDI visited UNESCO in Feb 2009 to discuss how IUGS could contribute towards the GGN. As a result IUGS was incorporated to the GGN Bureau and Colin SIMPSON was appointed as IUGS representative.

Jacques CHARVET.: In relation to the European Geoparks Network (EGN) he mentioned EGN produced a 160 page book. Each year a different course is offered on geoparks, and geoparks week.

Alberto RICCARDI: The IUGS is part of the Bureau of the Global Geoparks Network (GGN) and is actively supporting this initiative. Thanks to this new cooperation IUGS will improve its relationship with UNESCO. Geoparks is an important matter.

Robert MISSOTTEN: We hope that it will possible for all organizations to participate in the next Geoparks UNESCO Conference. M. PATZAK is responsible for the organization.

Margaret PATZAK: Thanks for this and the presentation. The beginnings of cooperation began circa 1997. I heard a comment regarding that IGCP should consider its position towards the Geoparks initiative. IGCP is a joint initiative. Recall that, at the beginning, IUGS was not interested because it was not scientific enough. EGN is now affiliated to IUGS. Pleasure to thank all those involved for their great cooperation.

Alberto RICCARDI: Comments or questions?

William CAVAZZA: How does Geoparks fit into the 5 themes that are now active in IGCP

Peter BOBROWSKY: I agree that this requires some discussions. No linkages now.

Ian JACKSON: I met with Patrick McKeever. We now have an informal MoU on OneGeology and the Geoparks Network.

Ezzoura ERRAMI: Introduce African Geoparks Network. Working on first African Geoparks conference. Maybe this will be extended to Arab countries. The first conference will concentrate on Strategy. IUGS and UNESCO (Cairo office and perhaps Nairobi), ICSU, GSA are supporting.

Ian LAMBERT: In Australia, a Geopark was proclaimed but the government not informed in advance. Resources etc. required. Anything that be used to emphasize geology and tourism, rather than heritage etc. is good. If we can return the focus on tourism and geology, that is good. The federal Gov't. (Ministry of Environment and heritage) has not been informed.

Robert MISSOTTEN: Working towards a solution. When we get a proposal we inform the UNESCO delegation here in Paris. So that Member States are better informed.

Peter BOBROWSKY: From Canadian perspective we hope to form a NC, following the US. In Canada, we have submitted first proposal. The Canadian commission feels that it is not well informed. The geological community is not happy. There will be work from Paris to communicate with National Commissions.

Margaret PATZAK: Of course we are aware of the situation. In some countries it is working perfectly. Government and UNESCO Commissions who form committees and make it part of their National Policy. This may be as big as World Heritage some day. We have been going at this for five years. We are here to manage all these different problems.

Wolfgang EDER: In Germany it functions. A national committee has been established. I

would recommend the proposal to address the national committees propose geoparks in their countries. All the other formalities and administrative problems will be solved at a latter stage.

Alberto RICCARDI: I concur. We should send a letter to IUGS NC. In some countries, if you go to the UNESCO National Commissions applications do not move forward. If it goes through national committees, it may improve relationship with UNESCO National Commissions. The procedure would be more complete and efficient

Hassina MOURI: I would like African Geoparks to come to the African Colloquium (CAG23) on January 2011. We have Geoheritage, but not geoparks.

Benjamin MAPANI: Many countries do not yet have national committees.

The Committee THANKED Colin SIMPSON for his oral presentation on the GGN

#### **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.

#### **ACTION ITEM #13**

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

#### **ACTION ITEM #14**

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

### **7.c.2. Geoheritage**

Peter BOBROWSKY reported that it could be said that informally the IUGS has a task group on Geoheritage. . . Patrick DE WEVER is involved. There is a new effort by Springer Publishing to produce coffee table book to publish Geoheritage sites across the world (W. EDER, P. BOBROWSKY as GSC). PROPOSAL: Request the IUGS PC consider whether IUGS could endorse this book, considering the publication agreement with the GSL.

William CAVAZZA: The agreement with the GSL should be considered

Peter BOBROWSKY: We have looked at this in the past. PC looked at this in the past.

Ian CORBETT: When you do not have the copyright, you put the disclaimer; if you do have the copyright, then there is also a copyright

Mikhail FEDONKIN: On the field tour before this meeting I saw stratotypes. We need to protect these. Some minimal intervention here at an international level would be good.

Stan FINNEY: Various groups have asked for the Stratigraphic Chart, and the question

is who owns the copyright? Set guidelines, develop ideas.

Peter BOBROWSKY: We have asked that all groups to contact GSL. But usually they have a better choice.

Alberto RICCARDI: I believe this is in the hands of the Publishing Committee. But I would like to ask about the disclaimers. For general papers this is fine: It must be a clearer disclaimer.

Fred SPILHAUS: Don't put your logo on things that are not worthwhile. That is the best disclaimer.

#### **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.

#### **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.

Alberto RICCARDI: Back to Geoheritage: IUGS did not receive a report from the Geoheritage Office in Beijing. What is the status of this office? I understand this was in charge of Zhao Xun. How is this office going to proceed? Last information was received on 5 April 2009 from Zhao Xun.

ZHANG Hongren: He is in the process of recovering. Colin SIMPSON did you receive something from Zhao Xun?

Colin SIMPSON: Yes

#### **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.

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

Robert MISSOTTEN mentioned that Stuart Marsh is the Chair and he is Secretary General. He apologized for late submission of the annual report, due to a January Workshop. He added that USGS recommended training of remote sensing in developing countries (20,000).

The Committee THANKED Robert MISSOTTEN for his oral presentation on GARS

#### **7.e. IUGS-UNESCO Task Group on Global Workforce (TGGW) (see Appendix 7.e)**

Pat LEAHY reported that on Global Geoscience the petroleum industry is aware of the workforce dilemma, a sensitive issue in both government and industry. The AGI has collected data, focused on within the USA and will look at the supply side as well as the demand. AGI has initiated a fund-raising effort which has resulted in \$1.5M towards this effort.

The problem became prevalent while attending an AASG Meeting; Pat has attended financial presentations and learned that investors are not worried about investing in the geosciences. Investors are most concerned about the continuity of the geoscience workforce.

This effort should be done on a global scale partnering with IUGS. What are the challenges? Defining the data, for instance, there is no reliable data on how many geoscientists exist within a country, region, academia, etc., the numbers are fluid. The numbers are used to show comparability within the geoscience workforce and the demand. We need to develop strategies to build the capacity to meet the demands. In Oslo AGI brought in speakers and used this meeting as a vehicle to get going globally. The members would be mid-level professors who may gather this data within the scope of their normal jobs.

UNESCO expressed interest in partnering with AGI however, the focus of effort elevated to the foreign diplomatic arena. AGI would like to partner with IUGS to keep the focus on the global workforce. AGI has established a committee with members from the Geological Survey of Iraq, South African Geological Survey, Geological Survey of Iran, Industry Representatives from Exxon, BRGM, Russia, in Central America and Brazil. AGI is seeking recommendations for this group.

Ed DE MULDER followed with his observation that the study is about employing geoscientists. Number to relate people in the geosciences work force is very important. LEAHY suggested that EC members go to AGIweb.org and look at fact sheets. The percent of middle school teachers, salaries, etc.

Alik ISMAIL-ZADEH asked how IUGS would define "geoscientists."

The question is what are the procedures? In the USA there are about 600 universities who award degrees in the geosciences. More academic Depts. would result in fiscal trouble. Letters to support this. How have they participated in our studies? Invariably, many institutions have not participated. What type of report are we looking at? Looking for the committee to define

It is informed that UNESCO has withdraw – officially – Originally it was a joint UNESCO and IUGS TG, but now need to officially change the name from UNESCO/IUGS to AGI/IUGS. Postpone until the timelines are defined. Aim was for UNESCO to assist with the effort – not necessarily for the publication process. Chairperson to table until next year and discuss at that time. It was amicably agreed that continued association with UNESCO will hamper the group to deliver. Pat LEAHY would like to move forward now. It is in the hands of AGI and IUGS will support their decision. Robert MISSOTTEN and Pat LEAHY will agree and put it in writing that they will separate the association.



The Committee THANKED Pat LEAHY for his oral presentation on (TGGW)

**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.

**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.

## **8. REPORTS ON OTHER PROGRAMMES**

### **8.a. IUGS-IUCN (World Conservation Union) geological World Heritage**

#### *Annual Report on the IUGS-IUCN Partnership on World Heritage Site Evaluation*

Background: 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:* Since 2007, the IUGS has annually 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 from various nations. The IUGS invitation to participate is open to all individuals through the IUGS E-Bulletin distribution list. The “call for volunteers” is issued in the period June-July-August. A number of individuals subsequently respond directly to the IUGS Secretary General with their expression of interest during the same period and often responding well into the end of the annual year. The IUCN provides the IUGS Secretary General with a list of candidate World Heritage sites that warrant geoscience evaluation in the period September-October-November. At the same time the IUCN requests the IUGS to table the names of 10 individual evaluators per nominated candidate site. The Secretary General reviews all the volunteer responses received for the past few years relative to the specific requests from IUCN and compiles 10 potential volunteers per site. The names and contacts are then forwarded directly to IUCN who subsequently manage the entire evaluation process internally and under strict confidentiality.

The identity of the evaluators and the evaluation reports are treated under strict confidence and are submitted directly to the IUCN in the period November-December-January. IUCN then internally processes all the reports received from IUGS evaluators collectively with all the remaining candidate submissions and provides their own recommendations for World Heritage site designation to the WH Committee. IUCN provides a confidential assessment of the review process to the IUGS Secretary General sometime in the New Year following their assessment of 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 received the following number of responses to the “call for volunteers” over a three year period: 2007 (247 replies), 2008 (530 replies), 2009 (392 replies). From the replies, the name, email address and experience level of each respondent is entered into a database (a database for each year is on file with the Secretariat). A number of respondents have responded more than once and appear in multiple years.

For the 2009-2009 review period: IUCN received 9 applications (natural and mixed sites), for which they requested help with 6 proposals. IUGS provided the names of 60 individuals of which 32 provided a useful response. From the 6 proposals that IUGS reviewers were involved with, two (2) were officially designated to the World Heritage list. Response details are confidential.

For the 2009-2010 review period: IUCN received 10 applications (natural and mixed sites), for which they requested help with 8 proposals. IUGS provided the names of 80 individuals of which 42 provided a useful response. The results of these evaluations will not be known until July 2010 when the WH committee meets for final arbitration. Response details are confidential.

*Special Requests:* During the 2009 year, the IUCN also requested specialized services from the IUGS volunteer list to comment on a policy document authored by Chris Wood on the study theme of “Volcanoes and Volcanic Landscapes as World Heritage Sites”. Four names were forwarded to the IUCN by the IUGS Secretary General and eventually 3 commentaries were received by IUCN. The comments assisted the IUCN in the document assessment requirements by the World Heritage Committee. This special request was also duplicated by scientists within the IAG family.

Tim BADMAN (IUGS/IUCN – World Heritage Site) stated that confidentiality of the report won't allow report to leave the Secretary General's office.

Robert MISSOTTEN added that IUCN President and Director General visited UNESCO – please focus on the importance. Had a role for GEO World Heritage for a long time, a lengthy discussion followed on protected areas?

A question was raised on having IUGS logo on the IUCN website somewhere? Not a problem with collaborative work.

Not clear on the roles, specifically the IUGS role with IUCN, as strengths are different.

There is a lot of reach in GEOPARKS through world heritage.

IUCN – UNESCO should serve as an advisor on geosciences.

Peter BOBROWSKY remarked the confidentiality issue – actual reviews and assessment are confidential

Alberto RICCARDI asked about the availability of the reviewers database, and Peter BOBROWSKY said that it is open information and is available in the IUGS Secretariat.

The Committee THANKED Tim BADMAN for his oral presentation on IUCN

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

Mikhail FEDONKIN reported that this first-ever inter-Union Task Group between the International Union of Geological Sciences (IUGS) and the International Union of Pure and Applied Chemistry (IUPAC) was proposed to resolve discrepancies between recommended values of radioactive half-lives or decay constants that had been independently generated by the two International Unions.

However, prior to the commencement of the initial data evaluation work, a fundamental problem arose. Basic measurements of decay constants (reciprocal half-life values) involve measurements of decay rates in units of disintegrations per second, where the second is the base unit of time in the International System of Units (SI). All of the nuclides involved have half-life values on the order of millions ( $10^6$ ) to billions ( $10^9$ ) of years, for which values quoted in seconds are impractical. The year is not defined within the SI system. Previous references to the year (e.g., Julian or Gregorian) have involved definitions in terms of the derived time unit of day (which are all inherently inaccurate and these inaccuracies increase with longer times).

The Task Group began work on the problem of defining the year, or annus, symbol a, directly in terms of the SI base unit of time (the second). Having finally resolved this fundamental problem, the Task Group has addressed the first three nuclides of interest, i.e.,  $^{238}\text{U}$ ,  $^{235}\text{U}$ , and  $^{40}\text{K}$ . It is hoped that in future joint inter-Union Task Group efforts, the remaining long-lived nuclide half-life values in the original proposal will be resolved. A meeting of this Task Group was held at the Geological Institute of the University of Bern on June 17-18, 2009. Among the attendees at this meeting were the chairman, Paul Renne (Berkeley Geochronology Center, Berkeley, California, USA), Igor Villa (Geological Institute, University of Bern, Bern, Switzerland), Paul DeBievre (Metrological Consultant, Kasterlee, Belgium), Mauro Bonardi (University of Milan, Milan, Italy) and Norman Holden (Brookhaven National Laboratory, Upton, New York, USA).

As a result of the meeting, two recommendations were prepared for publication.

- The first recommendation, on a new SI-compatible redefinition of the year, had been distilled in an article prepared for publication in the Pure and Applied Chemistry journal on "Recommendation for a Derived Unit of Time" (A Common Definition of the Year and its Use in Physical Sciences, such as Nuclear Chemistry and earth and Planetary Sciences); this article has been under review for three months. Comments from fifteen international reviewers had been requested and responses were received from fourteen of these reviewers. In response to the various reviewers' comments, the title of the article was revised,

the justification for the introduction of a new definition of the year was strengthened and the non-relativistic treatment of time versus the relativistic treatment of space-time applied to the correction of earth orbital motion in the definition of the year was considered.

- The second recommendation dealt with the half-life of  $^{238}\text{U}$ , as well as recommendations dealing with the derivation of the  $^{235}\text{U}$  and  $^{234}\text{U}$  half-lives, based on the  $^{238}\text{U}$  half-life.
- A third recommendation dealing with the  $^{40}\text{K}$  half-life was being considered, but more work was found to be needed before an official endorsement was possible.

A partial meeting of the Task Group was held in Berkeley, California, (USA) on 9-10 December 2009. It was attended by Renne and Villa and had to notice, sadly, that the lack of feedback on the two recommendations already submitted hampered further progress.

It has been suggested that another 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.

Stan FINNEY pointed out that his North American colleagues are not always in agreement on this and other issues.

The Committee ACCEPTED the IUGS-IUPAC TG report

#### 8.c. **OneGeology**

Ian JACKSON gave an update presentation on One Geology. In the future a National consortium of geological surveys may take this on. OneGeology is a not for profit organization. Members have a maximum liability of one year.

IUGS President Alberto RICCARDI remarked IUGS supports this initiative As an *ex-officio* member of its Steering Committee, IUGS is looking ways to promote geostandards of world-wide acceptance which could be used by the OneGeology project.

The Committee THANKED Ian JACKSON for his oral presentation on OneGeology

#### 8.d. **Group on Earth Observations (GEOS)**

Alberto RICCARDI reported that the Group on Earth Observations (GEO) was launched in response to call for action by the 2002 World Summit on Sustainable Development and by the G8 (Group of Eight) leading industrialized countries. GEO is a voluntary partnership of government 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 9 Societal Benefit Areas of critical importance to people and society: Disasters, Health, Energy, Climate, Biodiversity, Agriculture, Ecosystems, Water, and Weather.

The IUGS was recognized as a GEO participating Organization at the GEO-VI plenary Session in Washington, 17 November 2009. Since then IUGS designated some EC members as representatives (GEO Principal, GEO principal Alternate) and Correspondence Contacts. It was also requested to nominate members to the Geo Committees and to join the Tasks in the GEO 2009-2011 Work plan which provides the agreed framework for implementing the GEOSS 10 Year Implementation plan (2005-2015).

To work on these areas GEO has four permanent committees on: Architecture and Data, Science and Technology, User Interface and Capacity Building. The 2009-2011 GEO Work plans includes a list of task for these committees as well as for the 9 GEOSS Societal Benefit Areas.

IUGS purposes and coverage have a direct connection with the Purposes of GEO and GEOSS, as defined in the GEOSS 10-Year Implementation Plan, in relation, among others, to natural and human-induced disasters, environmental factors affecting human health and well-being, management of energy resources, water resource management, desertification and understanding, monitoring and conserving biodiversity.

Therefore, IUGS expects to contribute to GEOSS through its 120 National Committees representing the international earth sciences community, 46 affiliated organizations of world wide scope covering all field of expertise in the earth sciences, and commissions and task groups involved in geological education training and technology transfer, management and application of geoscience information, geoscience in environmental management, and standards in geosciences. Moreover the IUGS is involved in a series of joint initiatives with UNESCO and ICSU, that have a direct bearing in GEO purposes, such as those included in the International Geosciences Program (IGCP), the Geological Applications of Remote Sensing (GARS), the International Year of Planet Earth (IYPE 2007-2009), the OneGeology initiative, the International Programme for the Lithosphere (ILP), the Commission for the Geological Map of the World (CGMW), and the Global Geoparks Network.

Recommendation: The IUGS EC should ask commissions and task groups involved in geological education training and technology transfer, management and application of geoscience information, geoscience in environmental management, and standards in geosciences to nominate candidates for members of GEO Committees and to see in which way they could contribute to the tasks of the 2009-2011 GEO Work plan. A similar request should be directed to IUGS affiliate and adhering members.

## **The Committee ACCEPTED the report on GEO**

### **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.

### **8.e. Young Earth Scientists Network (YES)**

Luca MICUCCI gave a presentation on YES.

Alberto Riccardi remarked that IUGS has been one of the biggest supporters of this effort, and in principle IUGS is ready to support this initiative, which needs to be more clearly defined with regard to its possible goals, structure and finances.

Sarah GAINES added that she and UNESCO are active with YES and can speak to those in the next 2 days as Micucci must leave this evening.

The Committee THANKED Luca Mucucci for his presentation on YES

### **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.

### **8.f. IUGS-IUGG International Lithosphere Programme (ILP)**

Sierd CLOETINGH and Roland Oberhensili presented a PowerPoint presentation. ILP joined IYPE as a founding partner, with responsibility for the Deep Earth Team. They focused on the interface of science and society. A Flyer was produced as well as a book in the Springer series (Volume 1: Frontier in Interrelated Solid Earth Sciences).

ILP also had several Task Forces. The list of these is in their report. There were both new and old Task Forces. They participated in EGU and disseminated publications. A partial list includes: 1) Cawood; 2) Tibaldi (Volcanoes); 3) Tommasi et.al., Lithosphere-Asthenosphere interaction; 4) Dbrozhinetskaya; 5) DeMartini, Paleoseismology; 6) Rours, Sedimentary Basins; 7) Heidback Stress & Strain; 8) Uli Acheauer, Baby Plumes. The top priority in Europe is Geoscience of Coupled Deep Earth Surface Processes. The timetable is 2005-2012. This is linked to national programs throughout Europe: Hungary, Spain and beginning to team up with Asian countries.

ILP held annual meetings in Albania, Canada, France, Mexico, Morocco, and UAE (Au Dhabi).

The Committee ACKNOWLEDGED the ILP report

## 9. INTERNATIONAL COUNCIL FOR SCIENCE (ICSU)

### 9.a. Relations with ICSU

Alberto RICCARDI reported that the inception of ICSU was in 1961. Over the last years IUGS has been attempting to participate in all aspects of the organization, creating liaisons with other organizations in ICSU, requesting participation on different matters (e.g. ICSU foresight consultation for SP 2012 to 2017), proposing people to different committees of ICSU. He will have opportunity of meet with Director of ICSU this week and is looking forward to a meeting next April in Paris where all parties within ICSU. Peter BOBROWSKY mentioned that ICSU has a number of standing committees.

### 9.b. ICSU Committees and IUGS Representation

Peter BOBROWSKY reported that ICSU has a number of standing committees that include IUGS persons and interests.

CODATA: John Broome

COSPARGARS Stuart Marsh

FAGS/IGBP – no representation

IGOS: Stuart Marsh

INSAP: None

NSAP: None (AGID will participate)

SCAR: None

SCOPE: GEM

SCOR – IUGG has representative Eldridge Moores–

ES Cluster – Past pre-Gary Schmear

ICSU Panel for Relocation and Planning rejected IUGS representative.

Earth System Science Initiative – no nominations for candidates.

INHIGEO: Gould Jean

Some of the information from ICSU is contradictory. IUGS proposed Eldridge Moores for the Board but Harsh Gupta and Catherine were confirmed although ICSU wanted younger persons. General Assembly of ICSU will be in Rome 9/27-30/2011. This will cover all sciences not just geology.

### 9.c. ICSU Grant Programme

Alberto RICCARDI reported that a proposal submitted by IUGS in 2008 entitled “Use of Volcanic Products from the Cameroon Volcanic line area of the Noun River basin as rock fertilizers: a contribution to food security and sustainable agriculture” was not approved by ICSU.

As in 2008 in 2009 the IUGS circulated to all its bodies’ information provided by ICSU on the 2009 Grants. As result the International Permafrost Association (IPA) submitted a proposal entitled "An international workshop to initiate the circumpolar integration of permafrost microbiological studies" (MicroPerm). The proposal was submitted to ICSU

with IUGS as lead applicant, with the endorsement of IUGG and INQUA. At the same time IUGS endorsed a proposal entitled “Extreme Natural Hazards and Societal Implications (ENHANS)” in which the IUGG was the Lead Applicant.

#### 9.d. Relations with other ICSU Unions (GeoUnions)

Alberto RICCARDI reported that on 1<sup>st</sup> September 2009 the IUGS President had a personal meeting with IUGG President, Prof. T. Beer, where it discussed IUGS-IUGG common involvement in ILP, IYPE, ICSU, and I explored possible interactions in other fields such as marine sciences and global change. In October 2009 the IUGS President was invited to the IUGG EC meeting and Scientific Workshop to celebrate the 90<sup>th</sup> Anniversary of the IUGG, and as he could not attend he was represented by IUGS Councillor Colin SIMPSON.

A meeting of the GeoUnions is planned for April 2010 and for September 2011. The last one will be before the ICSU’s General Assembly to be held in Rome. Attilio BORIANI has requested the GeoUnions meeting to be held in Torino in coincidence with a meeting of the Italian Federation of Earth Sciences.

In relation to the Haiti earthquake the IUGS produced a resolution which was circulated in the e-Bulletin. IUGG provided a similar resolution, and now the GeoUnions are ready to adopt a common declaration on “Natural Hazards, Risks and Disasters”, based in previous documents produced by IUGS and IUGG.

#### **ACTION ITEM #20**

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

### **10. INTERNATIONAL YEAR OF THE PLANET EARTH (IYPE) LEGACY**

#### 10a. Events in 2009 and IUGS involvement

Alberto RICCARDI and Jacques CHARVET reported that the overall objectives of the IYPE are raising awareness among the public on the science of the Earth and urging politicians to apply that science in decision-making. The IYPE is a non-profit organization, incorporated in USA. It consists of a Board and a Secretariat and an Advisory Board. The IUGS has veto-power seat on the Board. The IYPE has National Committees in 80 countries representing 81% of the world.

IYPE has global support through and UN proclamation.

Chiefs accomplishments in 2009 were: Planet Earth Lisbon 2009 event in November 2009 hosted by the Portuguese Government, National Launches in various countries and strong increase in International partners; publication of the first book in the IYPE-Springer Series on Deep Earth and preparation of 9 more to come in 2010 and 2011;



publishing of 2 issues of Planet Earth book and launching of a new initiative: The Planet Earth Institute.

Chief problem is that level of funding by governments has been less than anticipated.

Planned activities for 2010 include: writing a report for the UN and UNESCO on the IYPE legacy, two international events on: Earth Science Education Initiative Africa at UNESCO and UN Committee for Sustainable Development in New York.

Expenditures for 2009 are estimated at approximately 1,000,000 USD and there is no budget specified for 2010. There is no request of funds to IUGS, although there is a pending reimbursement of an IUGS loan of USD 10,000.

#### *IUGS position on the IYPE Legacy*

The IUGS is in favor of using the *momentum* generated by The IYPE in order to promote, in partnership with other international organizations (e.g. UNESCO, ICSU, GeoUnions), well studied and coordinated geoscientific activities.

With regard to a Science Initiative the matter is still not clearly defined, as no concrete initiative has been proposed thus far. The IUGS is promoting, through UNESCO, a GeoUnions discussion meeting on this issue for April 2010, when the GeoUnions will meet in Paris to participate in an ICSU unions meeting.

On the Planet Earth Institute (PEI): This issue will be considered by the IUGS Executive Committee in its next annual meeting (Paris, February 22-25, 2010). Dr. Ed DE MULDER has been invited to inform the EC on this new initiative.

On the IYPE National Committees: In principle the IUGS EC decided in Sydney (January 2009) that they should revert to their previous status and merge with IUGS National Committees.

#### 10b. Termination of IYPE

Ed DE MULDER informed that a movie can be downloaded from the IYPE website. the Science initiative is ongoing.

#### 10c. After 2009 (see Appendix 10c)

Ed DE MULDER reported that IUGS participated in two IYPE meetings: London 2009, where Jacques CHARVET represented IUGS, and the possible fate of IYPE was discussed, groups were formed to increase outreach, the financial needs were defined and the legacy and IYPE program was evaluated; Lisbon 2009, where IUGS was represented by its President Alberto RICCARDI and where it was concluded that the IYPE year concludes June 30, 2010.

International Year consisted of 2 parts: 1) Science and outreach initiative; 2) UNESCO Issues – Africa and worldwide acceptance of OneGeology.

The idea is now to focus in Educational Outreach – use strong points of IYPE and create bi-national committees (presented at Lisbon meeting in 2009).

A Planet Earth Institute (PEI) – Mission of Planet Earth – is proposed to call for action to inform public about Planet Earth. It will have National Committees.

#### Questions and Discussion

Pat LEAHY asked, relative to other geosciences initiatives, whose summaries are available on the AGI – GSI – BGS and GSL websites. He also asked to clarify is PEI a non-profit?

Yes, the more money collected, the more will be returned to national committees. PEI will start out as a virtual institute—but may grow to have real building some day.

National committees will benefit from these organizations.

Alik ISMAIL-ZADEH mentioned that UNESCO was created to promote earth science activities on the international level.

Ian LAMBERT: Australia considers PEI's objectives appear to be the same as IYPE.

Pointed out the need to give the convincing argument that would benefit Australia.

Created because of shortage of geosciences students. Hope to do the same for 80 countries for 3 years?

Robert MISSOTTEN is happy to have slides modified - UN agency demonstrates that International Year is successful. It is important that activities have a beginning and an end. UNESCO looks forward to the final IYPE report – very clear situation that it was completed. Important to work on the Legacy but need to be clear on activities of the IYPE and look forward to feasibility study and a business plan and responsibilities. Keen and interested in following exercise but need further details before considering that plan.

Wolfgang EDER said that we should not lose the momentum of the IYPE. International programs are wonderful and vast – no lack of scientific program – urgent need to sell earth sciences – should not take breaks now.

Peter BOBROWSKY said that IUGS – (and he personally) – after 10 years of IYPE – have invested a lot of time and money and saw through since proposed in Rio. IYPE is officially over – He questions if IUGS should be involved any more? Why give up now? – IUGS should support PEI, if not requesting financial support.

Ian Lambert (?) endorsed Wolfgang and Peter's comments– talk as if everyone understand geosciences – why not support PEI?

Alberto RICCARDI pointed out that thus far PEI is a Virtual Institute. IYPE was a good idea, but it is important to move forward. He would like to know what part of the the initiative will we be within the PEI Inst. and not everything is clear and defined. This institute seems to go beyond geosciences. It is necessary to know where it is heading. There is nothing IUGS can do or define at this point on the basis of the existing information and circumstances. It would important to see the final report of IYPE and then a technical proposal and clear information on this new proposal for PEI. IUGS wants a complete report, and then IUGS can discuss further.

BOBROWSKY mentioned that AAPG's Division of Public Sciences has given the public outreach report.

The Committee THANKED Ed DE MULDER for his oral report

## **11. PUBLICATIONS, ETC.**

### **11.a. Episodes**

R. SAWKAR (GSI India) reported as M. Jayananda, Episodes Editor, is not present at the meeting.

Several items are exposed the transference has been arranged with the previous editorial office in China and all information will be on the servers of the GSI. There are costs to maintain this website and currently they are reviewing them. There is a charge of USD 30 for annual subscriptions to Episodes. It is mentioned that Springer is associated with the GS of India.

In the following discussion is mentioned the existence of a large financial concern. Postage is very high and the GSI cannot cope with all costs, although they are willing to assist.

IUGS President Alberto Riccardi congratulated the GS of India and the Editor for bringing Episodes up to date and maintaining its good quality.

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#### 11.b. Special Publications: Agreement with GSL

Information on the Agreement with GSL is included under Item 5.a.2. Publications Committee

#### 11.c. E-Bulletin

Colin SIMPSON reported that during the period August 2008 to January 2010 a total of 13 e-Bulletins were produced (#34 to #46). The Bulletins 34 and 35 were issued quarterly. Starting with issue #36 in February 2009 a monthly bulletin was introduced. Comments from external readers indicate that the monthly editions are appreciated.

The e-Bulletin has also increased in size from approximately 2 pages in the early issues to what can now be equivalent of 6 pages. The increase is largely because of the increasing number of requests for inclusion of notices in the Forthcoming Meetings section. While many items relating to forthcoming meetings, and affiliated organization notices, are received monthly the most difficult task is maintaining specific IUGS news items of importance for inclusion in the opening section of the e-Bulletin.

Comments: Six pages are too long and cause logistical problems, suggests posting some information on the website. Keep top part of bulletin for current and upcoming issues. Need some feedback on how to handle the lengthy bulletins. E-Bulletins are distributed to more than 11,000 persons.

In the discussion that followed it was said that to go beyond 6 pages is too long. May have to provide the Bulletin more frequently. An alternative is to post meetings on the IUGS website and list only new meetings each month. Every 3 months would be more of a newsletter—better to send twice a month and 1 page long, rather than a longer edition.

The Committee ACKNOWLEDGED the E-Bulletin report

#### 11.d. Website

Peter BOBROWSKY gave an update on the management of the web site, including work completed by the contractor and the training provided to Peter. Transferred data and updated website. The EC approved to use a private website company to redesign the website, where the most active part is the calendar, there is a special list for Affiliate members, adhering members, websites linked to IUGS site. He needs PDF version of old E-Bulletins and important information and up-to-date information to post. Number of hits, etc. will be available next EC meeting or sooner. Restricted EC access can be created for sharing information. Adhering Members having link is up to the EC. IUGS should have its own information on ICSU on this website. Need a MOU between IUGS and host countries for legal responsibility. Can you add a search engine? Peter BOBROWSKY feels that in general, the Secretary General should not be the webmaster, although the EC should leave him alone for the next 2 years.

Alberto RICCARDI stated that he is not in agreement on this – that Secretary General should not serve as the Webmaster. In addition he considers that if the IUGS website is located in another institution as it is now in the Geological Survey of Canada, it is necessary to have a MOU between that institution and IUGS. Otherwise it is not clear the legal status of the website.

Similar views are exposed by Mikhail FEDONKIN and ZHANG Hongren.

Alik ISMAIL-ZADEH is in disagreement, the Secretary General should serve as the webmaster, and he understands the science and the content to be included on the website.

Peter BOBROWSKY mentioned that the company server is located in Calgary. Need to assure that the website is at the point that there is a seamless transfer. He voiced concern that in any transfer it will lose data.

William CAVAZZA suggested no further discussion: leave the website with Peter BOBROWSKY.

R.H. SAWKAR added that Senior Earth Scientists update the website in Indian GS. Need experienced Scientists to provide updates.

Jacques CHARVET suggested that for practical purposes the EC should leave Peter BOBROWSKY as the Webmaster and also provide the scientific aspect to the website.

The IUGS President puts the question to a vote.

#### VOTE

Seven, out of nine, in favour of maintaining the present arrangement with Peter BOBROWSKY as Webmaster

The President asks to be recorded in the Minutes that he does not assume responsibility on any eventual problem arising from this decision.

## 12. IUGS 50<sup>th</sup> ANNIVERSARY

## 12.a. Book on the History of the IUGS (1961-2011)

Alberto RICCARDI reported that at the 60<sup>th</sup> IUGS EC meeting (Sydney, January 2009) it was decided that part of the celebration of the IUGS 50<sup>th</sup> anniversary in 2011 would be the publication of a book on the “History of the IUGS (1961-2011)”. A TOR was developed for the book and approved by the EC. On that basis it was requested the participation of IUGS Commission on the History of the Geological Sciences (INHIGEO). INHIGEO accepted the invitation and suggested that the participation of Dr. S. Turner would be instrumental to the success of this project. Since then Dr. Turner took a leading role in this project and during the meeting INHIGEO 09 (Calgary, August 2009) she organized a Workshop entitled “50<sup>th</sup> Anniversary History of the International Union of Geological Sciences (IUGS) 1961 – 2011”. From November 10-23, she visited the IUGS Secretariat in Norway at the expenses of the Norwegian IUGS Committee, to examine all historical and archival material retrieved there, at a time the Secretariat was undertaking the massive job of transferring to a new Country (USA). The time in Norway was spent by Dr. Turner investigating and assessing the volume and state of the archives held at the Norwegian Geological Survey in Trondheim before its move to the USA. On that basis it was produced a report (see Appendix) containing a number of recommendations and points to be considered by the IUGS EC.

This report summarizes the state of the archives, which include a tape archive, a photographic record, and a small archive of IUGS objects and products. Documents from some commissions are also present, among them those of INHIGEO which are digitized. According to Dr. Turner's evaluation the records are rather uneven in coverage but enough to assemble a coherent IUGS history. In the report it is also mentioned that Anne Liinamaa-Dehls, had undertaken scanning of all key documents, photographs, brochures, to produce the first digital IUGS archive and that a Google.Docs sites have been created for exchange of documents which all those included in writing chapters of the History of the IUGS could access. The report includes a list of IUGS documents still to find and an assessment on the existence, actual or possible, of documents in other institutions and countries, such as UNESCO, National IUGS Committees with special reference to those of the Geological Society of London, the Australian Academy & National Archives, the Geological Survey of Canada, and the University of Toronto. It is also noted that archives of the Nominating Committees are not kept with the Secretariat and therefore that aspect of the IUGS history is inaccessible unless documents are present in individual archives elsewhere. Recommendations and points to be considered by the IUGS EC can be summarized in two main sections, one of them focused on the Organization of the archives and the other on the IUGS 50<sup>th</sup> anniversary.

Organization of the archives: It is considered necessary, as there is a need for significant ongoing historical work beyond the IUGS 50th anniversary. Main points to be considered for the organization are: 1) the need to designate a truly permanent accessible archive (perhaps in the USA or UK; e.g. ICSU archive) so that individual or corporate desires do not dictate which documents are maintained; 2) it is recommended to continue using the File maker software program for building databases (both for PC and Mac) used by Dr. Turner and the IUGS Secretariat in Trondheim; 3) a permanent

home should be designated for the taped archive and for the small archive of IUGS objects and products amassed at NGU; 4) guidelines should be approved for access to the IUGS Archives with a fixed confidentiality period for historical work (in consultation with INHIGEO) (exclusion period of 10, 20 or 30 years, 3 EC terms) (e.g. which letters marked 'confidential' can be on open file even for historians to see); 5) guidelines for removal or destruction of documents should be established for the Secretariat.

50<sup>th</sup> anniversary. Main points are: 1) a second workshop on the History of the IUGS could take place at the 2010 INHIGEO meeting in Spain; 2) a related INHIGEO symposium could be organized at the INHIGEO 2011 meeting in Japan; 3) activities to be developed include to ask all National Committees to see if they can tape their senior colleagues to help build the history of outreach (examples of questions are listed); 4) it should be evaluated the possibility that a traveling exhibition might be developed for 2011 and beyond to show at IGCs, for instance, some of the achievements of the Union; 5) At a minimum, there should be an extended article in *Episodes*, which will be wanted at the 50th anniversary. 6) There needs to be a dedicated www page (perhaps accessible with password) within the INHIGEO website and/or linked to the IUGS website for the process of building the history (a list of items for the website is also included); 7) It should be decided if the book on the History of the IUGS should be limited with regard to the IUGS Executive actions only up to a particular date; 8) it is recommended that the new Secretariat, despite their now necessary learning experience, will need to provide secretarial and research assistance if the history is to be produced in time; 9) funding for the work and these products should be considered in the 2010 IUGS budget.

The report is followed by an exchange of views on this initiative.

Robert MISSOTTEN said that: UNESCOs history book considered also strategies for the Future. 50 years, plus strategy for the future.

INHIGEO representatives wish to know if IUGS EC agrees with the proposal of S. Turner.

Alberto RICCARDI says that in principle there is agreement as the budget may be feasible but the time available is short.

#### **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).

#### **ACTION ITEM #52**

Secretary General Peter BOBROWSKY to contact Sue TURNER and INHIGEO requesting that they submit their 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.

#### **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.

#### **ACTION ITEM #54**

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

#### 12.b. Other proposals

Other proposals for IUGS 50<sup>th</sup> Anniversary are considered:

- Special letter heads, logos.
- Start the celebrating of the anniversary end of March 2010. 3 March 2011 will be the central point of the anniversary.
- A travelling exhibit should be made to be displayed at different meetings, starting with the ICSU assembly in Rome.
- Affiliated Organizations should be requested to highlight the 50<sup>th</sup> Anniversary of IUGS.
- A new type of award on Scientific Achievement to be given during the IGC in Brisbane
- As IUGS was born in Paris it is correct that the main celebration should be here. When you look at the history of EC meetings, many meetings in a row were held in Paris
- Produce stickers, letterhead, etc. to highlight the YEAR.EC members welcome to forward other suggestions to Alberto RICCARDI with cc. to the Secretariat.

#### **ACTION ITEM #60**

Secretariat to produce a 50<sup>th</sup> IUGS Anniversary sticker for broad distribution.

#### **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.

### **13. IUGS POLICY AND STRATEGY MATTERS**

#### 13.a. IUGS/IGC Statutes and Bylaws

Alberto Riccardi mentioned that there are two different statutes, i.e. the IGC and IUGS statutes. The IUGS-IGC Council in Oslo (2008) rejected a proposal for integrated IUGS-IGC statutes. Thus now the IUGS EC should be mainly concerned with the IUGS statutes.. The EC must decide if IUGS should be introducing new changes in the statutes. If so it would be important to look into the detail of the statutes.

#### **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.

### 13.b. IUGS Strategic Plan and Priorities of IUGS

IUGS President Alberto RICCARDI stated that it would be important for the Task Groups on Affiliated and Adhering organizations to work out how these organizations could relate to ICSU and UNESCO initiatives on Geoinformation and Capacity Building. It would also be important for the IUGS to improve interaction with other GeoUnions. Thus far the relation has been informal and the GeoUnions have been acting like a pressure group in ICSU, but it is time to coordinate further.

The IUGS should be looking carefully at what each union is doing and how we could supplement rather than duplicate. For this we need to develop our relationship. In this regard there has been discussion on an IYPE-legacy megaproject. In addition the IUGS should be looking at Marine Geology and Climate Change; both are a priority, now and the years to come.

Attilio BORIANI: With regards to ICSU: it was born as a council of UNIONS. But in 1999 (Bruce Albert, NAS president), it was viewed that the National Members contributed more financially, so they should have more power. Hence it became the national council of SCIENCE. I fought this as IUGS Secretary General. The coordination between unions was better. UNIONS should count more. ICSU has become like an international association of Scientific Academies, and drifting towards Sociology. A strong action is required here to ensure the recognition of the importance of the Unions.

Alberto RICCARDI thanked Attilio BORIANI for these remarks. He could now understand why ICSU is specifically mentioned in the IUGS Statutes. There was at some time relevance, but it seems that this is no longer the case.

ZHANG Hongren: This is now the time to consider the strategic direction for IUGS and geosciences as a whole. Facing a zero sum game. Geosciences are getting less money. We should concentrate resources on limited activities. Regional offices use resources. When we look at themes of IYPE, IGCP, and IUGS: urban geology, ground water, most significant achievements were made decades ago, with little progress since that time. We must prioritize: What is the most important requirement of Society. Agree with Alberto RICCARDI that Climate Change is important. We need progress in this and a serious scientific investigation. Carbon Capture and Storage is important for the future, but IUGS has no involvement. If we want to use energy in the future, the only solution is storage. I suggest that IUGS organize strategic plan for all Geounions. Each Geounion to concentrate efforts on a specific topic: this would be the best use of limited resources.

Alik ISMAIL-ZADEH: Thank you that you raised the topic of cooperation of GeoUnion. The Geounions have a few priority areas, but agree that would be time to move to move to other areas: Climate Change and Carbon Sequestration. We should be able to discuss this in April (EGU). If we look at the History of Union, they were the international Research Council (with national academies). Yes, priority is given to National members, but we should maybe try to increase its contribution??

Attilio BORIANI: When it was a scientific union Council, main tasks were organized as interdisciplinary and the free circulation of science. However these tasks are still important. After they changed to try to orient scientific research to the benefit to society



– a vague task. The National Members were the customers, the Union could provide. But later, the National members also became providers of Sciences.

#### **ACTION ITEM #21**

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

### **13.c. Task Groups (TG) and other assignments**

#### **13.c.1. TG on Adhering Organizations**

Jacques CHARVET reported that the Task Group on Adhering Members worked by e-mails along the year 2009. After the acceptance of the draft of TOR by the EC during the meeting in Sydney, two issues were addressed.

J. CHARVET wrote a draft of a questionnaire and the cover letter to be sent to all National Committees, in order to know better their structure, operating mode, and expectations from IUGS. The draft was circulated to the TG members. Some of them replied and proposed modifications and improvements. Final corrections were suggested by Alberto RICCARDI. Due to the problems of changing Secretariat, the questionnaire could not be sent before the end of the year. It should be sent as soon as possible, by the new secretariat, to each National Committee.

Another exchange by e-mail concerned the draft of a new template for the annual report made by the National Committees. After several suggestions, the draft was completed at the end of the year, ready to be submitted to the EC.

#### **ACTION ITEM #71**

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

#### **ACTION ITEM #72**

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

#### **13.c.2. TG on Affiliate Organizations**

OCHIR Gerel informed that the TG is working following the TOR guidelines.

#### **ACTION ITEM #25**

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

### 13.c.3. IGCP Projects

Mikhael FEDONKIN reported that there are 37 projects and 7 projects on OET. Last group received: 5 projects. This is the lowest number of proposals ever submitted to IGCP. This may be a warning signal – other avenues may be opening for international cooperation. These new proposals do not include mineral resources, or global warming. European leaders are dominating in the IGCP projects. The Board must develop some connection to get under represented groups. It is necessary to improve templates for project reports.

William CAVAZZA adds that there is a room for other topics. 5 themes are identified, but there is room for other topics. Also that only 5 proposals submitted this year, but all good quality. A call for proposals should be included in the IUGS e-Bulletin.

Alik ISMAIL-ZADEH said that IUGG and other geounions could contribute proposals. This could be a UNESCO Geounion programme.

Alberto RICCARDI: Recall the strategy. It was recommend to modify the templates in order to stress: 1) assess the benefit provided to society of the projects; 2) Control active of participating of young scientists; 3) control transference of knowledge from developed to developing countries.

OCHIR Gerel: Knows that the Scientific Board does evaluate this.

#### **ACTION ITEM #28**

Councilor 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.

#### **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.

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### 13.c.4. Relationship between IUGS and IYPE

In view of the Termination of the IYPE it is discussed the possibility to capitalize the experience developed by the IYPE National Committees for the use of the IUGS NC.

Ed DE MULDER: Would be happy to assist here. A formal IYPE report will be produced for IUGS. This document will show who has been most successful and how they would be the most successful.

#### **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.

### 13.c.5. Inactive Countries

Marta MANTOVANI reported that a letter has been sent to inactive Latin-American Countries, where: Cuba and Costa Rica have been accounted. The main question is Why they won't come back? It seems that it is due to the fact that in the rules they must pay outstanding dues.

Ezzoura ERRAMI: Request Burundi wants to reactivate. Congo wants also.

William CAVAZZA: Present day rules: If a member state does not pay for 2 or 3 years, goes into inactive status.

Ezzoura ERRAMI: This is due o problem of funds, and political crisis

Wesley HILL: Is there the requirement to report if sponsored? Are there programmes for developed programmes to sponsor?

Alberto RICCARDI: Yes, the Royal Society of London arranged this. He believes the problem is not only financial. Marta MANTOVANI mentioned Cuba, where a non-geologist is the contact, now a geologist became the contact. Cuba is a very active participant, but cannot pay. It is needed a contact who is politically and scientifically well placed.

MOURI Hassina: requirement for reporting for groups that are sponsored

Ed DE MULDER: Contribution in kind, instead of finance.

Alberto RICCARDI: Paying in kind would require modification of Statutes.

Peter BOBROWSKY: Waived the two year requirements of payment.

Alberto RICCARDI: It would also be important to look at countries that are not members.

R. SAWKAR: What if one pays, does that give a voice?

Alberto RICCARDI: Anyone can pay, but there is a National Committee that has the representation.

### **ACTION ITEM #73**

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

### 13.d. Relations with UNESCO Regional Offices.

Alberto RICCARDI mentioned that relations with UNESCO regional offices are like those with ICSU RO. Try to get in touch with those offices in Arab Countries, and Sub-Saharan Africa (Ezzoura ERRAMI) and Asia and Pacific (OCHIR Gerel) and Latin American and Caribbean (Marta MANTOVANI). The same people acting as a liaison with ICSU will do the same with UNESCO offices.

Roberto MISSOTTEN thanks for discussing this subject.

### 13.d.1. RO on Arabian countries and sub-Saharan Africa

Ezzoura ERRAMI reported that sent letter months ago. No official response. But Cairo office response yesterday – willing to cooperate but come up with a strategy. Programme Specialist contact is good now. African Geoparks Initiative is a place to start.

Robert MISSOTTEN: Appreciate the innovation and would like to strengthen this cooperation. We have had two logistic problems. Cairo office director appointed very recently. We confirm that we are now recruiting a specialist in the Nairobi office. The main point of cooperation is the Educational project. We should look at problem of support to IGCP. We need to work setting of priorities for the UNESCO regional offices.

Ezzoura ERRAMI: During the workshops I attended in Africa, I saw little coordination between UNESCO Paris and regional offices.

Robert MISSOTTEN: The Nairobi office will soon have programme specialist, and the work will be returned to the region

Alberto RICCARDI: The Cairo and Nairobi offices did not reply. The field officer from Nairobi here at Paris was not aware of the IUGS letter.

#### 13.d.2. RO on Asia and the Pacific

OCHIR Gerel reported she has (little contact from Jakarta. She met with them during the YES conference but they were not aware that she was the IUGS representative.

Alberto RICCARDI: No reply from Jakarta Office, but the field officer replied. They would like to cooperate on GARS.

#### **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.

#### 13.d.3. RO on Latin American and the Caribbean

Marta MANTOVANI reported that she met with the LAC at joint meeting of UNESCO and ICSU. Had first contact, and there is interest in developing the contact.

Alberto RICCARDI: this is the only office that replied (Montevideo). Willing cooperate with all IUGS. Denise (field officer present at the IGCP meeting). Write her with copy to the division based in UNESCO

#### 13.e. Relations with ICSU Regional Offices

##### 13.e.1. RO on Africa

Ezzoura ERRAMI reported that communication is good, but there is no strategy. She suggested joining with IUGG and ICSU on the activity of Global Change and Geohazards. She hopes to keep contact with new ICSU RoA director.

#### **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.

#### 13.e.2. RO Asia and the Pacific

There is no information from the liaison officer OCHIR Gerel.

#### 13.e.3. RO on Latin American and the Caribbean

Marta MANTOVANI reported that: Natural Hazards was the most supported activity, a topic that should be pursued. Next meeting would be in Argentina, but has not received more information

Alberto RICCARDI mentioned that the Head of the Regional Office, Alice Abreu has been very active and provided good communication.

### **14. REQUESTS FOR FUNDING AND BUDGET FOR 2010**

#### **ACTION ITEM #66**

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

### **15. UPDATE**

#### **15.a. Annual Reports 2008 and 2009**

The 2008 Annual Report has been completed.

The 2009 must be done.

#### **ACTION ITEM #47**

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

#### **ACTION ITEM #48**

Secretariat to complete the draft Minutes of the 61<sup>st</sup> Executive Committee Meeting for EC review by July 2010.

#### **15.b. IUGS Brochures and Flyers**

**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.

**15.c. IUGS Exhibition Stand**

After PC develops the text, the new Secretariat will merge adopted text with revised 50<sup>th</sup> anniversary logo to produce a new poster.

**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.

**15.d. IUGS Exposure and Advertising Products****ACTION ITEM #62**

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

**ACTION ITEM #63**

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

**ACTION ITEM #64**

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

**15.a. Annual Reports 2009 and 2010****15.b. IUGS Brochures and Flyers****15.c. IUGS Exhibition Stand****15.e. Directory****16. FREE DISCUSSION****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.

**ACTION ITEM #70**

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

**17. REVIEW OF ACTIONS ARISING FROM THIS MEETING**

**ACTION ITEM #69**

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

**18. VENUE AND DATE OF THE 62<sup>ND</sup> AND 63<sup>RD</sup> EXECUTIVE COMMITTEE MEETINGS**

The 62<sup>nd</sup> EC meeting will follow immediately AFTER the 50<sup>th</sup> Anniversary event at UNESCO in Paris in February, 2011. Timing will be dependent upon Robert MISSOTTEN and the annual IGCP meeting dates, TBA.

**19. OTHER BUSINESS**

9.1. Geostandards

**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.

9.2. IUGS Awards

The need to have more IUGS awards was discussed. The new awards should be given at the opening of the IGC.

**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.

**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.

### 9.3. YES

The IUGS received from YES a request of funds. The issue is discussed taken into account that there is no formal relationship.

#### **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.

## **Appendices**

Appendix 5.d.2.17 – Russia Report

### **INTERNATIONAL UNION OF GEOLOGICAL SCIENCES**

#### **Reporting Form for IUGS Adhering Organizations 2009**

**1. COUNTRY: Russia**

**2. NAME OF IUGS ADHERING ORGANIZATION (OR NATIONAL COMMITTEE):**



**Russian National Committee of Geologists (Russian NCG)**

**3. NAME AND ADDRESS OF PERSON PREPARING FORM:**

**Saima M. Makhmutova, Acting Executive Secretary  
Russian National Committee of Geologists  
Geological Institute RAS  
Pyzhevsky per. , 7,  
119017 Moscow  
Russia**

**Telephone : (7-495) 951 75 00 or (7-495) 953 37 91  
Fax: (7-495) 951 15 87 or (7-495) 953 55 90  
E-mail: ncgrus@ginras.ru**

**4. NUMBER OF PEOPLE ON THE COMMITTEE: 32**

**The Russian NCG consists of 32 leading scientists and professionals from the Russian Academy of Sciences, Industrial and Educational organizations of the country.**

**5. NUMBER OF MEETINGS IN 2009: Four Bureau meetings**

**6-7. MAJOR ACCOMPLISHMENTS AND ACTIVITIES IN 2009:**

**The Russian National Committee of Geologists is a national, non-governmental, scientific organization which represents scientific interests, encourages and promotes activities of Russian geoscientists in international non-governmental organizations engaged in studies of geological problems of a fundamental or applied character. Taking into account its aims and objectives the Committee deals with the major policy and operational issues pertinent mainly to the activity of IUGS and its Affiliates.**

**\*\*\***

**Commission on Geoscience for Environmental Management (GEM) and another**

**In October 2009 Igor S. Zektser, being the constant member of the Commission on Geoscience for Environmental Management, has participated in the annual meeting of Commission which took place in Montevideo (Uruguay). He has**

presented a report about the Russian activities on study water resources.

In 2009 Prof. Zektser was elected as Vice-President of the International Association of Hydrogeologists. The Russian scientist has achieved this position first time during all history of the Association.

### **International Commission on the History of Geological Sciences (INHIGEO)**

The International Conference “ Modern Geology: history, theory, practice” on the 250<sup>th</sup> anniversary of the Vernadsky State Geological Museum of the Russian Academy of Sciences (RAS) was held in Moscow (October 14-16, 2009). There was presentation “ History of Geology in the Geological Museum” by I. Malakhova on the panel session. The exhibition on the history of Museum has been opened (Z. Bessudnova, G. Khomizuri, I. Malakhova). 15 papers on the history of sciences were read on the section meeting. The INHIGEO members’ presentations were among them (Z. Bessudnova, E. Minina, G. Trifonov). Malakhova has participated in the 2009 INHIGEO Conference “Fossils and Fuel (Calgary, Alberta, Canada, August 10-14, 2009) with presentation, participation in the field excursion and meeting at the INHIGEO Work Group.

The Russian INHIGEO members (Z. Bessudnova and I. Malakhova) have presented papers on the annual meeting of the Institute of the History of Science & Technology RAS (Moscow, May, 2009).

N. Yushkin was a member of the organizing committee for the annual meeting of the Russian Mineralogical Society on the 100 anniversary of D. Grigoryev and XXII Chernov’s Conference.

Five volumes of the new quarterly International Journal “History of the Earth Sciences” were issued in 2009 with I. Malakhova and G. Khomizuri as members of the editorial board, and A. Lapo, I. Malakhova and G. Khomizuri as authors.

[http://www.ifz.ru/journals/hes/english\\_version/index.htm](http://www.ifz.ru/journals/hes/english_version/index.htm)

Under the Project of the Russian Academy of Sciences “ Virtual Library SCIENTIFIC HERITAGE OF RUSSIA” the Department for the History of Geology of the Vernadsky State Geological Museum has prepared 25 files (books on-line, biographical articles, photographs, list of publications). There are about 200 geological publications in the Library now.

<http://nasledie.enip.ras.ru/index.html>

### **International Commission on Stratigraphy**

#### **Subcommission on Ordovician Stratigraphy**

In the last decade the Subcomission was primarily involved into the work on the

**new robust international chronostratigraphic scheme for the Ordovician system. In the year 2008 all the 7 new global stages were approved by the 33<sup>rd</sup> International Geological Congress in Oslo. The definition and correlation of the new stages was published at the beginning of the year 2009 (Bergstrom, S.M., Chen Xu, Gutierrez-Marco, J.C., Dronov, A. 2009. The new chronostratigraphic classification of the Ordovician System and its relations to major series and stages and to  $\delta^{13}C$  chemostratigraphy, LETHAIA, 42, 97-107).**

**During the final meeting of the IGCP503 project in Copenhagen at the beginning of September 2009 the members of the Subcommittee have discussed the new aspirations and new targets of the Subcommittee. As a result of these discussions the following areas that Subcommittee can develop have been presented:**

**The Subcommittee can move towards confirming and establishing finer subdivisions of Ordovician time. In this respect Bergstrom et al. (2009; LETHAIA) have divided new global stages into stage slices based mainly on existing biozones. Finer time slices were also proposed by Webby (2004). As these time divisions are more widely adopted, it would be useful to confirm their definition and status.**

**Detailed correlation of the key sections of the largest Ordovician sedimentary basins of the World and their calibration with the new global stages.**

**The formal approval and publication of the regional stratigraphic schemes for the main Ordovician basins of the World.**

**Consistent results on a Carbon stable isotope curve for the Ordovician have been already achieved for the part of the column. This work should be continued as one of the important nonbiologic means of correlation.**

**The other nonbiologic technique is sea-level or water-depth curves for the period. It would be useful to examine proposed curves and the criteria upon which they are based more carefully as a step towards developing more standardized global sea-level curve for the Ordovician.**

**Reconstruction of past geography and development of more standard set of base palaeogeographic maps for the Ordovician period.**

**We already have a number of robust absolute dates for part of the system but it would be useful to develop more, not least to be able to calibrate the true rates of biological and geological process occurring during the period.**

**The further activities of the national research groups on the above mentioned areas is of a high importance for progress in studying of geological evolution of the Earth during the Ordovician. D.Sc. A.V. Dronov as a voting member of the**

**Subcommission on the Ordovician Stratigraphy from Russia** has took part in the discussions on these areas of activity. He thinks it is important to organize special investigations on these topics on the territory of Russia.

#### **Subcommission on Silurian Stratigraphy**

The most important planned event for 2009 was the Silurian Field Meeting “Time and Life in the Silurian: a multidisciplinary approach” in Sardinia, June 4-11. This conference resulted in formation of a collaborative focus group on the integration of biostratigraphic, chemostratigraphic, and sequence stratigraphic scales for the Silurian System. However, Russian members and corresponding members of the Subcommission did not participated because of financial reasons.

The SSS collaborated with the British Geological Survey in the remapping and stratigraphic reinvestigation of the GSSPs and surrounding type regions for the bases of the Aeronian, Telychian, Wenlock (Sheiwoodian), Homerian, Ludlow (Corstain), and Ludfordian. It was an objective to complete integrated biostratigraphic, chemostratigraphic, and sequence stratigraphic of each of the GSSPs. At the present time, each of these GSSPs has a significant level of imprecision in its definition for the purposes of high resolution stratigraphic correlation. These restudies will increase the precision with which the GSSPs can be defined and correlated.

In 2009 Russian members of the Subcommission were working on the program aiming at the definition of regional stratotypes of the global stage boundaries (RSSP) outside the stratotype area in the regions with different facial development within Russia. The chosen regional stratotypes will be submitted to the Interdepartmental Stratigraphic Committee for an approval in 2010. The idea of RSSP will be discussed at the meeting of the International Commission on Stratigraphy in Prague, May-June, 2010.

#### **Subcommission on Carboniferous Stratigraphy and Subcommission on Permian Stratigraphy**

Under Boris Chuvashov's management in Laboratory on Stratigraphy and Paleontology two international projects are carrying out:

Studying behaviour of stable isotopes of oxygen, carbon and strontium in Carboniferous-Permian carbonates of Eurasia and Northern America. The contract about joint researches is concluded with the Laboratory of geochemistry of A & M University of State Texas (USA). By present time works on territories Midcontinent of the USA, on Russian platform and the Western slope of Urals are finished.

**Results:**

The quick lowering of the middle temperature on lower boundary of Middle Carboniferous is established, that is considered as influence of the beginning of

a glaciation on territories of southern continents of Gondwana.

It is established, that mid-annual temperatures Late Carboniferous and Early Permian on the area Midcontinent (USA) were 26 degree C, and in the east of Russian platform and the Western Urals reached up to 28 degree C. It means, that two regions were on similare paleolatitudes during Late Carboniferous and Early Permian.

“Isotope dating of the lower boundaries of the stages of Lower division Permian system” is finished. The investigations are carried out together with the International institute on studying of the Permian system at a State University (State Idaho, Boise) within the framework of the International working group on studying of Lower Permian’s stages activity (Chairman B.I. Chuvashov).

The lower boundaries of stages have the next isotopic ages now:

Assellian Stage - 289,9 million years

Sacmarian Stage - 294 million years

Artinskian Stage – 290 million years

Kungurian Stage - 282 million years

In June of this year with Chuvashov’s participation Field conference on a theme – “Murchison – the founder of the Permian system” has been organized. At conference a series of report about results of Murchison’s travel in Russia for development of a geological science is submitted. Conference was finished by opening of memorial Murchison’s plate on bank of Chussovaya River near Chussovoe village.

Representatives of Consulate of the Great Britain in Ekaterinburg and membes of the Urals-Scottish Society are participated in ceremony.

#### **Subcommission on Triassic Stratigraphy**

##### **Induan-Olenekian Boundary Working Group (IOBWG)**

The Induan-Olenekian Boundary Working Group guided by Yu.D. Zakharov selected one

GSSP by a majority vote at the end of 2007. The selected GSSP was the FAD of *N. waageni sensu lata* at the base of subbed MO4-13A3 at Mud section (Himalaya, India). At the end of 2009, Marco Balini asked Zakharov to reactivate IOBWG because new palaeontological data (conodonts and ammonoids) have been obtained from the section (Mud) selected as GSSP: both Orchard and Goudemand have come to the conclusion that *N. waageni sensu lata* is occurring first in level 10,i.e., about 1 meter below the level 13A3. The lower position of the I-O boundary in this section confirms by new data on flemingitid ammonoids obtained by Bucher.

In connection with it IOBWG organized some changes in its structure and is ready now for next discussions and voting. Before the formal vote of the STS (and ratification) an additional work must be done, but deadline for the Working

Group was determined as one year or little more...

### **Subcommission on Jurassic Stratigraphy**

During the 2009 some important papers concerning Russian sections, considered as GSSP candidates or auxiliary sections of the Callovian, Oxfordian, Kimmeridgian and Tithonian

Stages has been published. Information about all direction of activity has been submitted to Head of the Subcommission on Jurassic Stratigraphy, Dr. J. Palfy , and to heads of the working groups. Except articles devoted to some peculiarities of boundary intervals of the sections of stages mentioned above, review of all Russian GSSP candidates of Jurassic stages was published (Rogov et.al., 2009). Following the decision of the 2<sup>nd</sup> meeting “Jurassic system of Russia” held in Yaroslavl (September 2007) the 3<sup>rd</sup> meeting was allocated to Saratov (September 2009). Report concerning this conference has been submitted to “ISJS Newsletter” and to “Stratigraphy and Geological Correlation” journals.

Most important are new paleomagnetic data derived from all GSSP candidates, which up to now became most complete for considered intervals (Pimenov et.al, 2009). New information about stable isotope values of O and C from molluscan shell was also obtained from the Callovian-Oxfordian (Wierzbowski, Rogov, 2009) and Kimmeridgian-Volgian (Price, Rogov, 2009) transitions.

An active development of the bi-lingual web-site of the Jurassic Commission of ISC of Russia <http://jurassic.ru> in progress. During the 2009 traffic grew significantly (twice concerning 2008 year and now attending 120-150 users per day) and visitors became more active, sending us abound publications .

### **Subcommission on Paleogene Stratigraphy**

Russian Paleogene Stratigraphical Commission numbers are about 50 members now and introduced 17 Geoscientific Organizations: Russian Academy of Sciences (Moscow, St. Petersburg, Ekaterinburg, Novosibirsk, Vladivostok, etc.) , States Universities (Moscow, St. Petersburg, Saratov, Vladivostok, Novosibirsk, Tomsk), the Branches of Geological Institutes, Departments and Regional Geological Expeditions of Geological Survey.

There are several participants from Ukraine, Kazakhstan, Azerbaijan, Belarus, which took part in Paleogene Commission activity.

Members of the Russian Paleogene Commission have published: 1-Monograph, 1-Paleontological Atlas, 13 papers and more then 27 abstracts to International and All Russian Meetings, Symposia and Workshops; 3 Doctor Thesis were maintained.

Paleogene Commission Member took part in 9 International and Russian Meetings and Symposia.

The main results of studying Paleogene deposits:

Reconstruction paleogeography, environment, biotic and abiotic changes on the

**main Paleogene biospheric events (South Russia, West Siberian plate, Far East).  
Correlation of regional subdivisions based on different biotic groups.**

**Paleoclimatic reconstructions and reflections of climatic events on different biotic groups.**

**Detail regional zonal subdivisions by different microplanktonic groups.**

**The Transition “Warm”to “Cool” biosphere in Central Part of Extratropical Eurasia.**

### **Subcommission on Neogene Stratigraphy and others**

**In 2009 Prof. Yu. B. Gladenkov worked as the voting member of four international subcommissions and committees of the IUGS International Commission on Stratigraphy (ICS) as well as the chair of the working group of the ICS. They are as follows:**

- **Subcommission on Stratigraphic Classification and Nomenclature**
- **Subcommission of Paleogene Stratigraphy**
- **Subcommission on Neogene Stratigraphy**
- **Regional Committee on Pacific Neogene Stratigraphy**
- **Working group on North Pacific Paleogene.**

**The continuous participation in the activities of the International Commission on Stratigraphy gives a possibility to use the data banks, to take part in evaluation of tendencies and methods of stratigraphy .**

**He keeps close contacts with the ICS and its leaders. In particular he took part in discussion of the new version of International stratigraphic scale and some sections of the new edition of “ International Stratigraphic Guide” (Prof. Gladenkov is a member of the working group to prepare the section “Biostratigraphy”). The work in the mentioned ICS bodies involved him in discussion and decision of different urgent stratigraphic problems of great interest for specialists of many countries, such as approaches to construction and modification of stratigraphic codes, development of stratigraphic scales of new generation and their refinement, establishment of Paleogene and Neogene stages and substantiation of their boundaries, estimation of different methods and techniques for building stratigraphic schemes, correlation of geological events through time and space, paleogeographic reconstructions, and others.**

**Up to the present time the most urgent and debatable problems were a rank of the Quaternary and a position of its lower boundary. In this April acting as the deputy Chairman of Russian Stratigraphic Committee he organized All-Russian conference on these problems, which took a clear resolution. Prof. Gladenkov forwarded the resolution with the opinion of Russian geologists to the ICS and voted accordingly in different international organizations.**

He keeps close contacts with all representatives of the ICS and considers its activities very helpful. According to the common procedure he submits reports on scientific-organizational works to the organizations listed above and takes part in discussing their plans.

To great regret no Russian specialists have participated in the deep drilling in the Bering Sea in 2009, in spite of being involved in discussions of plans of these work.

## **International Association of Engineering Geology and the Environment (IAEG)**

Russian National Group includes 80 collective members. In 2009, the activity of the IAEG Russian national group was carried out in accordance with the national program of the Russian National Committee of Geologists, together with the Scientific Council RAS on the problems in environmental geoscience, engineering geology and hydrogeology and was coordinated with the schedule of IAEG events.

The Eleventh All-Russia Scientific Conference “Sergeevskie chteniya” (the annual session of the Scientific Council RAS on Environmental Geoscience, Engineering Geology and Hydrogeology ) in commemoration of the outstanding Soviet and Russian scholar, Past President of IAEG, academician Evgenii M. Sergeev was held in Moscow, March 23-24, 2009. The session included the jubilee meeting devoted to the 95<sup>th</sup> birthday of academician Prof. E.M. Sergeev and the scientific session “Modelling for Solving Geoenvironmental Problems”. The conference were attended by more than 190 participants from CIS and East European countries. The conference proceedings (Sergeevskie chteniya. Volume 11, V.I.Osipov, Editor-in-chief, Moscow, GEOS Publishers, 2009, 448 pp.) were published.

The CD-version of selected publications by E.M.Sergeev on soil and rock engineering was presented at the conference. The Scientific Council RAS plans to proceed in future with the edition of CD-version of E.M. Sergeev’s works on other scientific topics.

The Seventh International Scientific and Practical Conference on Mitigation of Natural Hazards and Risks (Georisk-2009) was held in Moscow on May 21, 2009, within the framework of the International Exhibition of Means for Providing Safety and Security “Integrated safety and Security 2009”. The conference was hosted by IEG RAS, Scientific Council RAS on the problems in Environmental Geoscience , Engineering Geology and Hydrogeology in collaboration with the Ministry for Emergency Situations of the Russian Federation (The Centre for Strategic Research and Civil Defense). The conference proceedings (Georisk-2009, Moscow, RUDN Publishers 2009) were published in two volumes. In addition, the Second All-Russia Scientific and Practical Conference “Environmental and Geological Problems in Urban Areas” under the aegis of the Russian National group IAEG and the Scientific Council RAS on Environmental Geoscience, Engineering Geology and Hydrogeology on November 26-27, 2009 in



**Ekaterinburgh.**

**Members of the Russian national group IAEG take an active part in international IAEG activities. Dmitrii O. Sergeev, leading researcher at IGE RAS heads the IAEG commission C-21 “Engineering geology of permafrost regions”. In 2009, 15 Russian scientists have participated in the 7th Asian Regional Conference of IAEG “Geological Engineering Problems in Major Construction Projects” (Chengdu, China, September 9-11, 2009). Academician V.I.Osipov has been included in the Consultative committee of the Conference.**

**At present, the Russian national group IAEG has launched the All-Russian contest among young scientists in engineering geology to be awarded with the Richard Wolters Prize, the prestigious IAEG award for scientists under 40 years old. Russian scientists are also preparing to make contribution to the 11<sup>th</sup> IAEG Congress (Auckland, New Zealand, 2010).**

**In 2009, the Russian national group has received 4 issues of IAEG Bulletin (30 copies) and distributed them among the national group members and the higher school libraries as well as the IAEG Newsletter. In addition, the website of the Russian national group IAEG has been opened this year within the Website of IEG RAS ([www.geoenv.ru](http://www.geoenv.ru)) both in Russian and in English, where all information about the national group activity as well as electronic Newsletters are available.**

**The participation of Russian scientists in the IAEG promotes the broadening of international bonds and favors the further development of the Russian geological science.**

### **International Mineralogical Association (IMA)**

**The Russian Mineralogical Society (RMS) , one of the founders of IMA actively and efficiently collaborates with IMA, taking part in the work of executive bodies of IMA commissions, in organization of international events and Russian Scientific meetings. Vice-President of RMS N.P. Yushkin is Vice-President of IMA. Russian mineralogists affiliate with all Commissions and Working Groups of IMA, leading a number of them (Acad. D.Yu. Pushcharovsky, Prof. L.L. Perchuk and others). Exclusively important work.**

**is carried out by the Commission on New Minerals and Mineral Nomenclature with the elected Co-Chairman Prof. V.G. Krivovichev, who also leads the respective Russian National Commission. In 2009 during 19<sup>th</sup> Annual Goldschmidt Conference in Davos the IMA Council held meeting, where the preparation for 20<sup>th</sup> IMA Congress on August 23-27, 2010 in Budapest was discussed. Russian mineralogists also participate in its organization, working in the Program Committee. At the annual meeting of The Russian Mineralogical Society in Saint Peterburg the issue on the interaction of RMS and IMA and development of international cooperation was discussed. Under IMA support the**

**3<sup>rd</sup> Russian Conference on Organic Mineralogy was held in Syktyvkar.**

### **Commission for the Geological Map of the World (CGMW)**

**In 2009 in Commission for the Geological Map of the World in three of its 16 Subcommissions the managing posts were occupied by the leading Russian experts on geological cartography. There are Subcommittee for Northern Eurasia (A.P. Karpinsky Russian Research Geological Institute-VSEGEI, St. Petersburg), Subcommittee for Antarctica (Institute “VNIIOkeangeologia”, St. Petersburg) and Subcommittee for Tectonic Maps (Geological Institute RAS, Moscow). During 33<sup>rd</sup> International Geological Congress, at the CGMW General Assembly the activity of Russian Subcommissions has received a high estimation in connection with finishing of two International projects. Now Russian Subcommissions carry out the following international projects on compilation of the maps of the geological content:**

**“International Tectonic Map of Asia at scale 1:5,000,000”;**

**“ International Tectonic Map of Antarctica at scale 1:10,000,000”;**

**“ Atlas of geological Maps of Russia and adjacent countries of CIS”;**

**“ Geological and Tectonic Maps of the International (Russia, China, Kazakhstan, Mongolia and Republic of Korea) project “Three-dimension geological structures and metallogeny of Central, Northern and Eastern Asia”;**

**“ Tectonic Map of the Circum-Arctic region of the Earth at scale 1:5,000,000.”**

**Subcommissions CGMW for Tectonic maps and Northern Eurasia accept active participation in the International project of Subcommittee for East and South Asia (China Geological Survey, Institute of Geology of Chinese Academy of Geological Sciences, Beijing) “International Geological Map of Asia at scale 1:5,000,000-IGMA-5000”.**

**At General Assembly CGMW in February, 2010 (Paris, France) all three Russian Subcommissions will take part with the reports on progress of realization of the of international projects.**

### **International Association on the Genesis of Ore Deposits (IAGOD)**

**Two international conferences held in Novosibirsk (Russia) and Guilin (China) under the aegis of IAGOD occurred to be the main events of the Russian national group of IAGOD in 2009.**

**The conference “Large igneous provinces of Asia, mantle plumes and metallogeny” took place in the Institute of Geology and Mineralogy (SB RAS) August 6-9, 2009 under the leadership of Academician N.L. Dobretsov and Prof. of the University of Western Australia F. Pirajno. 125 talks of scientists from Russia and abroad, devoted to the problems of magmatism, tectogenesis, and related ore formation, have been presented at the conference. Abstracts were published in the proceedings of the conference.**

The conference “Fluvial palaeo-systems: evolution and mineral deposits” have been organized at instigation of Russian geologists October 14-19, 2009 in the University of Technology (Guilin, China). It was held in the framework of UNESCO Project IGCP514 under the leadership of Dr. A.V. Lalomov from the Russian side (IGEM RAS). 30 specialists participated in the conference, 5 Russian geologists among them.

On the initiative of Russian NG, elaboration of the Sample Exchange Information System (SEIS) has been started. It is designated as a universal international system operating not only for IAGOD purposes but for needs of the geologic community.

Seminars devoted to the problem of the genesis of ore deposits started in IGEM RAS. Two seminars have already been held and one more is scheduled on the end of the year 2009.

A web-page dedicated to the activity of Russian NG is developing on the website of IGEM RAS. It will help to inform Russian NG members about current and future IAGOD events.

#### **International Federation of Palynological Societies (IFPS)**

Main purpose of the Russian Palynological Commission (RPC) is coordination of activity of palynologists and encouragement of a high level of scientific-theoretical researches in various regions of the country. Members of a bureau of the commission are in close contact and coordinate work of palynologists in various areas of palynology, define the important questions for the further researches.

The important role belongs RPC in the organization and holding of the All-Russia Palynological Conferences which pass in three years. The last XII the All-Russia Palynological conference on the theme “Palynology, stratigraphy and geocology” was held in St. Petersburg (2008) at the All-Russian Petroleum Exploration Institute (VNIGRI) and at Herzen Russian State Pedagogical University. The palynologists from other countries: Ukraine, Belarus, Kazakhstan, Serbia, Czech Republic, Iran, Mongolia etc. have participated in work of this conference. The following XIII All-Russia Palynological Conference will take place in 2011 at the Institute of Geology of Komi Science Centre of Ural Branch of the Russian Academy of Sciences (Syktyvkar, Komi Republic).

In 2009 palynologists took part in the Russian paleontological, stratigraphical and geological conferences. For example, in annual conference of Paleontologic section of the Moscow Society of Nature Explorers – “Paleostrat-2009” (PIN RAS, Moscow), LV session of the Paleontologic Society of the Russian Academy of Sciences (VSEGEI, St. Petersburg), III Jurassic meeting (Saratov State University, Saratov), 2<sup>nd</sup> All-Russia Conference “Upper Paleozoic of Russia” (Kazan State University, Kazan), the All-Russia Conference of “200 years of

Russian paleontology” (PIN RAS, Moscow) etc.

With the purpose of informing of palynologists about forthcoming conferences and the congresses in the Russia and in the World the e-mail information bulletin “PALININFORM” is published twice in a year (since 2001). Main editor of it is Dr. Maya V. Oshurkova (VSEGEI, St. Petersburg). Besides, releases “PALYNOS” have been dispatched all members RPC.

To forthcoming XIII All Russia Palynological Conference (2011) work on specification of the directory “Palynologists of the Russia, the CIS and the Baltics” is spent. The English variant of the List of palynologists of Russian Palynological Commission to the following XIII International Palynological Congress (Tokyo, 2012) is simultaneously edited also. At present time the RPC includes 270 palynologists from various region of Russia, including 8 associate members from other countries: Belarus, Ukraine, Georgia and Kazakhstan.

The Chairman of RPC is Dr. Peter I. Tokarev elected in 2002 at the X All-Russia Palynological Conference.

#### International Union for Quaternary Research (INQUA)

Russian experts take part in the work of INQUA commissions, committees, subcommittees, being members of the corresponding subdivisions (N.A. Alekseeva, M.A. Erbaeva, A.K. Markova, S.A. Laukhin, and other).

A.S. Tasakov takes an active part in the work of the Subcommittee on Quaternary Stratigraphy. This year, after a long debate on the status of the Quaternary and its lower boundary, the International Commission on Stratigraphy presented the following recommendations:

The Pleistocene lower boundary should be brought down so that the Pleistocene would include the Gelasian Stage and its lower boundary could be determined by Monte San Nicola GSSP that marks the Gelasian base.

The lower boundary of the Quaternary system and accordingly the Neogene-Quaternary boundary is formally defined by Monte San Nicola GSSP, and is so coincident with the bases of Pleistocene and Gelasian;

These definitions indicate that the Gelasian Stage is transferred from the Pliocene Epoch to the Pleistocene.

A.K. Markova went on working at the European Association on Quaternary Mammals affiliated with the INQUA Commission on Stratigraphy. M.V. Sotnikova, L.A. Golovina, N.V. Alekseeva participated at the meeting of the Subcommittee on Neogene Stratigraphy “Regional committee on Mediterranean Neogene Stratigraphy (RCMNS)”, 13<sup>th</sup> RCMNS Congress, 2-6 September, 2009, Naples, Italy.

**A.N. Simakova, A.S. Tesakov have attended the conference of the Subcommittee on European Quaternary Stratigraphy (SEQS) , which was held in Spain: “The Quaternary of Southern Spain: a bridge between Africa and the Alpine domain” 2009 SEQS Annual Congress, 28 September-3 October, Orce and Lucena (Spain).**

**\*\*\***

**As encouraging results of improved communications by post, E-mail, and Internet with International geoscientific organizations (including IUGS and its Affiliates) we have regularly received a lot of information on the forthcoming events (2009-2012)-symposia, meetings, etc. The Committee has compiled an information Bulletin and circulated it among about 100 academic, industrial, geoscientific institutions and universities throughout Russia.**

**In spite of the difficult financial situation, the Russian NCG has managed to arrange the 2008 EPISODES subscription (55 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 influences the Committee’s activity.**

**This year due to our great 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 debt in the International Union of Geological Sciences for this year has been covered by “Russian Reserve”.**



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## NATIONAL GEOLOGICAL COMMITTEE OF SLOVAKIA

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### ANNUAL REPORT 2009

The executive board of the National Geological Committee of Slovakia (NGCS) consists of the following members:

*President* – Dr. Milan Kohút (Dionyz Stur State Institute of Geology, Bratislava)

*Vice-president* – Doc. Dr. František Marko (Faculty of Natural Science Com. University, Bratislava)

*Secretary* – Dr. Igor Broska (Geological Institute, Slovak Acad. Sci., Bratislava)

*Members* – Prof. Miroslav Bielik (Comenius University, Bratislava), Doc. Dr. Stanislav Rapant (Geological Survey, Bratislava), Doc. Dr. Jozef Michalik (Geological Institute Slovak Acad. Sci. Bratislava), Dr. Malík, (Geological Survey Bratislava), Dr. Ladislav Šimon (president of the Slovak Geological Society) and Doc. Dr. Jacko (representative of the Ministry of Environment of Slovak Republic).

In the next, we list some most important activities participated by representatives of the NGCS and IUGS affiliated organisations, as well as IGCP projects meetings:

### ***International events in Slovakia 2009:***

- ***XII. International Conference Hydrogeochemistry '09 in Bratislava (June 18<sup>th</sup> - 19<sup>th</sup>, 2009), on the Faculty of Natural Sciences, Comenius University, Bratislava.***
- ***Joint congress of Slovak and Czech Geological Societies, September 30<sup>th</sup> - October 3<sup>rd</sup> 2009 Bratislava. Three different geological excursions were organised as integrated part of congress.***
- ***NEOTACT - International field workshop on neotectonics, October 15<sup>th</sup> - 18<sup>th</sup> Vernár.***

- „**GEOCHEMISTRY 2009**“ – December 2<sup>nd</sup> – 3<sup>rd</sup>, 2009 Bratislava; symposium about the geochemical research activities in Slovakia & Czech Republic.

Foreign events:

- ***Active participation at the international meeting CETeG (HunTek 2009) in Pécs (Hungary) which held May 13<sup>th</sup> – 16<sup>th</sup> 2009***
- ***Active participation in the organising international conference MinPet held in Budapest, September 7<sup>th</sup> – 11<sup>th</sup>, 2009***
- ***Active participation in the 2009 AGU Fall Meeting held in San Francisco, California, USA, 14<sup>th</sup> – 18<sup>th</sup> December, 2009***

### ***Slovak activities within the frame of International Year of Planet Earth (IYPE)***

- Lector work during duration of exhibition “Planet, we live on” which was created on 500 m<sup>2</sup> and opened till 2<sup>nd</sup> July in the Slovak National Museum. 49680 visitors have seen the exhibition, mostly the school excursions.
- During exhibition „Planet we live on“ the following events were organized: 2 special seminars for the teachers of geology from secondary and elementary schools, 10 public talks for different themes (e.g. volcanism, earthquakes etc.), 49 curator explanation talks.
- J. Michalík was participated on IYPE closing ceremony in Lisboa (November 20<sup>th</sup> -22<sup>nd</sup> 2009) as president of Slovak IYPE committee.
- Informative articles and interviews in Slovak popular journals (e.g. Museum and galleries)
- Interviews in the Slovak radio and TV sets (e.g. J. Michalík, J. Lexa)
- VIII. Slovak Geophysical Conference, June 16<sup>th</sup>-17<sup>th</sup> 2009 Bratislava
- Field excursion on the youngest volcano (112 ka) on the Slovak territory of the Western Carpathians that held on the November 7<sup>th</sup> (guided by L. Šimon)
- Excursions for the beauties of minerals and mining history – for the students and pupils (e.g. 11.11. 2009): guide S. Jeleň
- Moving of IYPE exhibition “Planet we live on” to the regional Spiš Museum, December 2009.
- Christmas seminar of the Slovak Geological Society, December 10<sup>th</sup> 2009 Bratislava, joined with an Official closing of IYPE in Slovakia.

## **NATIONAL REPORT OF SOUTH AFRICA TO IUGS AND IGCP**

1. **COUNTRY:**  
Republic of South Africa

2. **NAME OF NATIONAL COMMITTEE:**  
**South African Committee for IUGS and IGCP**

**NAME OF ADHERING BODY:**  
South African ICSU Office (National Research Foundation)

3. **NAME AND ADDRESS OF PERSON PREPARING THE FORM:**  
Mrs. Susan Frost-Killian  
Council for Geoscience  
Private Bag X112  
PRETORIA, 0001  
**South Africa**

4. **NUMBER OF PEOPLE ON THE COMMITTEE, AND NAMES:**

At present 12 people serving on the Committee, they are:

Mrs. S. Frost-Killian	-	Council for Geoscience
Dr S. Master	-	University of the Witwatersrand
Prof S. McCourt	-	University of KwaZulu-Natal
Dr G. Grantham	-	Council for Geoscience
Mr. M. Grodner	-	TWP Consulting Ltd
Mr. R. N. Domoney	-	University of Western Cape
Mr. M. Dippenaar	-	University of Pretoria
Dr R. Durrheim	-	C S I R
Prof W. Colliston	-	University of the Orange Free State
Dr J. Botha-Brink	-	National Museum, Bloemfontein
Mrs. L Nhleko	-	Council for Geoscience (capacity building delegate)
Secretary	-	Mrs. B. Molefe, National Research Foundation

5. **MEETINGS HELD IN 2009**

- a. No national committee meetings were held during the year. All discussions were conducted by telephone and/or electronically.
- b. Members of the committee attended the preliminary planning meetings for the organization of the 35<sup>th</sup> IGC (see section 6).

6. **SOUTH AFRICA 2016 IGC PREPARATIONS**

South Africa has started steady preparations for the 35<sup>th</sup> IGC, which will be hosted by this country in 2016 at the Cape Town International Conference Centre.  
The Local Organising Committee was formed and the following structure was proposed

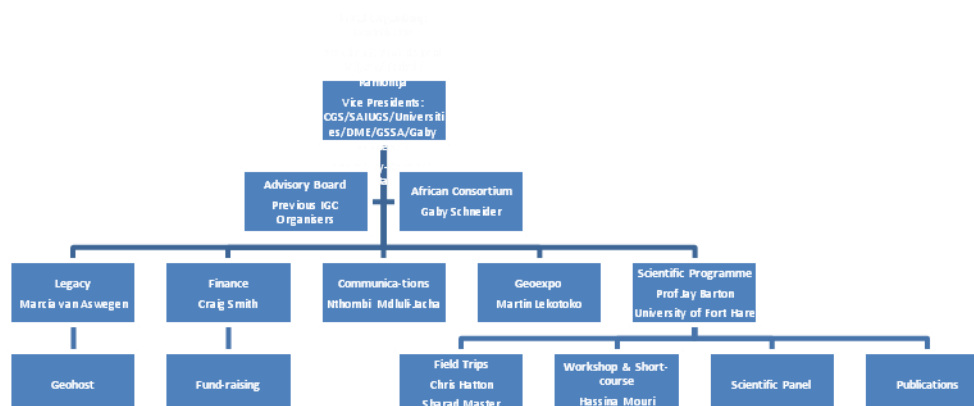


and adopted (Figure 1):

- President: Prof. Richard Viljoen and Dr Thibedi Ramontja
- Secretary-General: Danie BARNARDO
- Legacy sub-committee: Marcia van Aswegen
- Finance sub-committee: Craig Smith
- Communications sub-committee: Nthombi Mdluli-Jacha
- Geoexpo sub-committee: Martin Lekotoko
- Scientific programme sub-committee: Prof. Jay Barton

Two meetings of the LOC were held in August and November 2009 (APPENDIX 1), after an inaugural Workshop, which was held on 3 July 2009. The following issues were discussed and decided:

- The Legal Entity to manage the event should be an Article 21 (not-for-profit) company, registered in accordance with South African law. A start has been made to get the necessary permissions and form this company.
- A provisional booking has been made for the event at the Cape Town International Conference Centre and the time period for the event was determined to be the first two weeks of August 2016.
- A start has been made to list possible field excursions for the pre- and post-conference excursions.
- A logo for the event was designed and adopted by the LOC.
- A preliminary events budget was compiled.
- It was decided to hold one meeting of the LOC every three months and the next meeting is scheduled for March 2010.



**Figure 1:** Structure of the Local Organising Committee, 35<sup>th</sup> IGC.

A local organizing committee meeting was held in August 2009 (see APPENDIX 2).

## 7. ICSU SOUTH AFRICA

**Dr Sharad Master represented the SA National Committee of the IUGS at the SA ICSU Workshop, 5-6 February 2009, Kopanong Hotel & Conference Centre, Kempton Park.**

**The workshop provided a forum for reflection and information about past and**

future activities and experiences of various National affiliates to the ICSU family. The meeting provided a platform for Drs D. Nyangagura and A. Enow to discuss the Science Plans of the ICSU Regional Office for Africa (ICSU-ROA). The results of the ICSU General Assembly, held in Maputo in 2008, were discussed.

Mr Robert Krige of the National Research Foundation announced that there would be a review of all SA National Committees falling under the SA National ICSU umbrella. The Department of Science and Technology, funder of the National Research Foundation, is relooking at the funding mechanisms currently in place for the ICSU-ROA and the various National Unions falling under the ICSU umbrella.

#### 8. INTERNATIONAL YEAR OF PLANET EARTH

The National Committee for the International Year of Planet Earth, including members from the IUGS committee, has been involved in very few activities in 2009:

- Participation in SciFest Africa, or the National Festival of Science, Engineering and Technology in Grahamstown in April, 2009;
- Representation at the PELE2009 event in November 2009 in Portugal (2 IYPE committee members and 3 students);
- Dr Sharad Master is currently co-editing, together with Prof. Felix Toteu, and Drs Theo Davies and Hudson Nkotagu, a Special Issue of the Journal of African Earth Sciences, for the International Year of Planet Earth (IYPE);
- IYPE public lecture in Cape Town (December 2009) by Dr Sharad Master titled: "The 4th December 1809 Cape Town Earthquake and attendant phenomena: a Bicentennial perspective"; and
- The closing of the IYPE in South Africa is currently under discussion.

#### 9. MAJOR ACTIVITIES IN THE GEOSCIENCES IN SOUTH AFRICA DURING 2009

This is a summary of some of the activities of geoscience societies and geoscientists in South Africa in 2009, from information collected to date.

##### A. The Geoscience Societies in South Africa

###### *Geological Society of South Africa (Contribution by Craig Smith, GSSA)*

During the past year the Geological Society of South Africa (GSSA) has continued to grow to its current strength of circa 2500 members. Most of the membership resides in southern Africa, but there are active members across the globe, and we are associates of several other societies including the GSA, the SEG and the AAPG.

The Society continues to publish its scientific journal, the South African Journal of Geology, which has world-wide circulation, and which is also part of the Geoscience World family of journals. The quarterly news bulletin (Geobulletin) continues to be published to keep the membership updated on developments in the professional community.

The Society is engaged in a number of issues and projects. The more prominent include becoming a Voluntary Association of the South African Natural Scientific Professions statutory body (SACNASP), responsible for overseeing professional

registration and the development of a Continuing Professional Development program (CPD) for earth scientists within SACNASP. Excluding students, some 90% of the Societies' professional members are industry based, and professional accreditation combined with career development options is very important for competent person recognition, a necessary pre-condition for the right to sign publicly available reports and reviews on resource projects. The Society continues to stay engaged in the development and oversight of South African minerals reporting codes (SAMREC and SAMVAL).

Also as part of the Professional Affairs portfolio, the Society constitution and by-laws are being reviewed and updated.

The academic community has not been overlooked, and the GSSA continues to support South African earth science research initiatives through its Research and Education Investment fund, and its involvement with student members.

The meetings portfolio (Directorate of Professional Programs) has been active, hosting ten meetings on a variety of technical topics, including the annual GeoForum meeting. In line with the financial crisis commencing in the latter part of 2008, meeting attendance was down during the year, but this is expected to return to normal in 2010.

Some 80 to 90% of our younger professional members (recently graduated) and student members are Historically Disadvantaged South Africans, and comprise a completely different racial and cultural profile than the senior spokesmen in the earth sciences. Steps are being taken to make sure the youth are groomed for leadership positions with the earth sciences as they represent the life blood of the future earth sciences, and in coming years will likely be in demand in the developed world as fewer and fewer economic geologists come out of northern hemisphere universities. Not only will we need to supply southern Africa, but we anticipate growing international demand for these skills. The GSSA need to ensure that their members are up to these challenges; the Society has embarked on a long term transformation journey to drive this. Additionally, the GSSA have embarked on a re-branding exercise to better appeal to the younger members of the earth science professions.

An interesting trend that has developed in 2009 is the sudden and very high interest in things geological from the general public. The geoheritage group has been revitalized, and there will be a multipronged effort in preserving geoheritage sites, promoting geotourism, developing geoheritage sites, and promoting earth science education for non-geologists. These efforts range in scope from providing lectures to the University of the Third Age, to involvement in the formation of major trans-frontier natural parks.

Finally, in late 2008, South Africa won the bid to host IGC 2016, a joint effort spearheaded by the Council for Geoscience, and including the Department of Mineral Resources (government), and the GSSA. Planning for this meeting has already started, with the GSSA having responsibility for establishing Finance, Legacy, and Technical committees for the event. We are tremendously proud of our role in the 'Olympics of Geology' – and we can assure the international earth science community of a fantastic geological experience in South Africa.

#### *South Africa Geophysical Association (SAGA) (Contribution by Ray Durrheim)*

The South African Geophysical Association, founded in 1977, is comprised of two branches, one in the Western Cape and the other in Gauteng.

The branches hold technical meetings at approximately monthly intervals. These talks are typically attended by about 30 geophysicists. Most talks are given by local geophysicists, although from time to time talks are given by international colleagues visiting South Africa in the course of their professional duties. The Society of Exploration Geophysicists sponsors a “distinguished lecturer” programme. Two distinguished lecturers presented talks to SAGA audiences in 2009 in both Johannesburg and Cape Town: Jack Bouska (BP Oman) presented a talk entitled “Integrating Seismic Acquisition and Processing” and Samir Abdelmoaty (BP Egypt) presented a talk entitled “Multi-azimuth seismic in the Nile Delta, Egypt”.

In 2009, Marcus Chatfield presented a course on Wireline Logging as part of the SAGA-hosted “continuing education” courses.

The Biennial SAGA Technical Conference, attended by more than 200 delegates, was held in September 2009 at the Royal Swazi Spa in Swaziland’s Ezulwini Valley. Pre-conference courses /workshops included a GPR course by Prof Nigel Cassidy, an ERMAPPER course, a full tensor gradiometry data processing and interpretation course by Des Fitzgerald, and a WELLCAD interpretation course. The pre-conference field trip to the Barberton Mountainland was led by Prof Carl Anhaeusser. Several geophysical research programmes active in southern Africa (Inkaba yeAfrica, SAMTEX and AfricaArray) used the SAGA meeting to hold workshops and to showcase their work.

#### *South African Institute for Engineering & Environmental Geologists (SAIEG)*

The SAIEG is a national voluntary group which represents natural scientists practicing in the field of engineering and environmental geology. It is affiliated to the IAEG (International Association for Engineering Geology and the Environment) as the South African group and the AEG (Association of Engineering and Environmental Geologists) in the USA through its local chapter, which was established in 1970.

The SAIEG Annual General meeting and the Gold Awards Dinner were held in March 2009. Mr. Quinton Coetzee was the guest speaker.

The SAIEG has been active this year, holding a number of meetings and short courses including:

- SAIEG course: Soil profiling, core logging & chip sample description
- SAIEG Evening Lecture: Ground Penetrating Radar (May 2009)
- SAIEG course: Soil profiling, core logging & chip sample description (August 2009)
- SAIEG Young Professionals Roadshow (Pretoria, Durban) - to attract “young” interest to the Institute, with presentations to Engineering Geology Honours students and to final year Geology students choosing their honours programmes (August 2009)
- SAIEG Evening Lecture: Aerial Mapping and LIDAR Techniques (September 2009)
- SAIEG 2nd Brink Memorial Lecture: Tony Brink, Not An Ordinary Man (October 2009)
- SAIEG Evening Lecture: Legal Risk Management (November 2009)

#### *Palaeontological Society of South Africa (PSSA) (Contribution by Dr Jennifer Botha-Brink)*

The Palaeontological Society of Southern Africa holds biennial meetings, the last of which was held in Matjiesfontein from 11 to 14 September 2008. This meeting heralded the 15<sup>th</sup> of its kind and planning for the next meeting in 2010 in Kwazulu-Natal is currently underway.

Five members of the South African palaeontological community attended and presented papers at the 69<sup>th</sup> Annual Meeting of the Society of Vertebrate Paleontology held in Bristol, United Kingdom from 23 to 26 September 2009. Nearly 1000 palaeontologists attended the meeting.

Research activities in South Africa include several large projects funded by the National Research Foundation and the Palaeontological Scientific Trust. These projects include investigations on the end-Permian extinction, research on the biology of Permo-Triassic therapsids (the ancestors of mammals), studies on South African dinosaurs and hominid research. This year signaled the 200<sup>th</sup> anniversary of Charles Darwin's birth ("the father of evolution") and numerous South African members of the PSSA were involved in promoting this very important celebration at their various institutions.

Highlights for 2009 include a very special fossil site that was discovered by Dr Gideon Groenewald during a fossil rescue mission for Eskom for their new Ingula Pump Storage Scheme in Kwazulu-Natal. This site represents one of the most fossiliferous sites known in South Africa. Dr Groenewald and members of the National Museum, Bloemfontein rescued numerous fossils including complete skulls and skeletons, highlighting the importance of Environmental Impact Assessments prior to development. Other exciting news includes a new dinosaur find in Senekal, discovered by Dr Adam Yates and colleagues from the Bernard Price Institute, University of the Witwatersrand. Although archaeologists have been involved in heritage assessments for some time, it is worth noting that many South African palaeontologists are now also conducting impact assessments. A list of these professional practitioners may be obtained from the PSSA committee.

## **B. Contributions to IUGS Programmes**

1. Commission for the Geological Map of the World.  
No information was received on any current CGMW-related projects for 2009.
2. IGCP  
South African scientists have participated in the following ICCP projects:
  - a. IGCP 557 – Diamonds, xenoliths and kimberlites: A window into the Earth's Interior.  
The project started in 2007 and is now in its third year. Participants in the project are from across the world namely, Europe, North America, Africa and Australia. The Team Leader is Dr. Holger Sommer from the Department of Geology, University of the Free State, Bloemfontein, South Africa. The principal aim of this study is to develop a model describing the formation of e- and p-type diamonds. Hence, this project incorporates the study of the Earth's Interior.

## **C. Other Geoscience Programmes**

*AEON EarthWISE, University of the Free State (Contribution from Wayne Colliston)*

The purpose of AEON EarthWISE has been to provide training for natural science teachers in the Intermediate and Senior Phases and to increase the science awareness of communities in rural areas. Since 2006, the EarthWISE office of the Africa Earth Observatory Network (AEON) has been functioning from the Univ. of the Free State

(UFS). Its office is based in the Geology Dept in the Faculty of Agricultural and Natural Science (FANS), and is staffed and run with a budget provided by the Ellerman Scholarship made available by the AEON head office at the Univ. of Cape Town (UCT), and the Inkaba ye Africa German-South African collaborative research programme. The current activities of EarthWISE build upon 10 years of experience gained during the period 1995-2005, when it was managed from UCT.

Four successful projects in the Free State and Northern Cape were completed and some 1000 scholars together with teachers in attendance. The first was a science weekend in Prieska, consisting of a teacher-training workshop, a science road show and Family Math and Science workshops hosted by the Research Institute for Education Planning (RIEP) of the UFS. The second project was two teacher-training courses during the National Science Week program of Boyden Science Centre. The third project was a road show in Kroonstad in collaboration with the FANS of the UFS. The fourth project was a short course for teachers on the solar system and climatic controls on planet earth. Many of the courses included interactive science displays and/or short, interesting multimedia presentations, involving Chemistry, Geology, Plant Science, Entomology, Physics, astronomy and Geography.

During 2008 and 2009, EarthWISE also developed useful workshop material to aid in the training of teachers. Special manuals and accompanying lab boxes were assembled specifically for the geological sessions of the workshops. Two full activity books (one for Intermediate and one for Senior Phase teachers) were also developed, containing practical classroom activities for the whole subsection "The Planet Earth and Beyond" of the National Curriculum Statement. The aim of the workshops and materials developed was to make teachers more familiar with the theoretical knowledge, which underlies the Earth science part of the new curriculum.

## **APPENDIX 1**

### **MINUTES OF THE IGC WORKSHOP, HELD IN THE COUNCIL FOR GEOSCIENCE BOARDROOM, ON FRIDAY 3JULY 2009**

#### **PRESENT:**

Dr T Ramontja (CGS)  
Dr P Zawada (CGS)  
Dr G Graham (CGS)  
Mr F Ramagwede (CGS)  
Prof B Zhao (Fort Hare University)  
Mr C Muzerengi (University of Venda)  
Mr SE Mhlongo (University of Venda)  
Ms Masela Pillay (NRF)  
Ms Busiswa Molefe (NRF)  
Ms Sue Frost-Killian (CGS/IUGS)  
Mr Chris Hatton (CGS)  
Dr Richard Viljoen (University of Wits)  
Mr Stuart Hill (MSA Group)  
Mr Mike Lynn (MSA Group)  
Mr Alex Conradie (DME)  
Prof Jay Barton (Consultant – CGS Board)  
Ms Hassina Mouri (UJ/GSAf)  
Mr Martin Lekotoko (CGS)  
Ms Nthombi Mdluli Jacha (CGS)  
Ms Chantelle Ashley (CGS/OAGS)  
Ms Juanita van Wyk (CGS)  
Ms Malefshane Kola (CGS)  
Mr Peter Motaung (CGS)  
Mr Leonard Matsepe (CGS)  
Dr Craig Smith (GSSA)  
Mr Danie BARNARDO (CGS)  
Dr Sharad Master (University of Wits/IUGS)  
Ms Viola Chagwiza (CGS)  
Ms Marcia van Aswegen (GSSA)

**Secretariat :** Juanita van Wyk

#### **1. WELCOME**

Dr Thibedi Ramontja opened the meeting and welcomed everybody. He stated that it was an open meeting and that the agenda was open for amendment.



He highlighted that the objective for the meeting was to lay the foundation for the IGC in 2016. He stated that SA was awarded the bid to host the IGC in 2016 and that it was a huge achievement for all parties involved e.g. the GSSA, Dr von Gruenewaldt who assisted with the bidding process and the Board of the CGS.

The second objective was to identify issues to be addressed and to map the way forward.

The third objective was to identify the people who would form the committee and run the whole process.

Dr Craig Smith of the GSSA also stressed the importance of the meeting and the requirement of success and prestige involved in hosting the IGC.

## **2. BACKGROUND**

Dr Peter Zawada gave a presentation on the background of the IGC 2016 congress which highlighted the objectives and reasons for the bid. (See Appendix A attached).

### **Discussion:**

- Dr Ramontja stated that the Australians invited SA to sit on their committee with observer status. The Secretary-General should be the person to sit on the Australian committee.
- The number of delegates to the IGC conference were discussed, the expectation is that +/- 10 000 people will attend the IGC in 2016.
- The question was raised if people from neighboring countries were identified to be involved with this process. It was said that Dr Gaby Schneider for Namibia will play a major role, but that people from other countries were not yet identified.
- The issue of professional conference/event organizers was raised. It was stated that the services of such organizers will definitely be needed from an early stage in the process and that the IGC LOC (Local Organizing Committee) should oversee and manage all the arrangements. The importance of the identification of the IGC LOC members and their portfolios were highlighted. It was suggested that a Cape Town based events organization should be used.

## **3. AGREEMENT WITH THE IUGS**

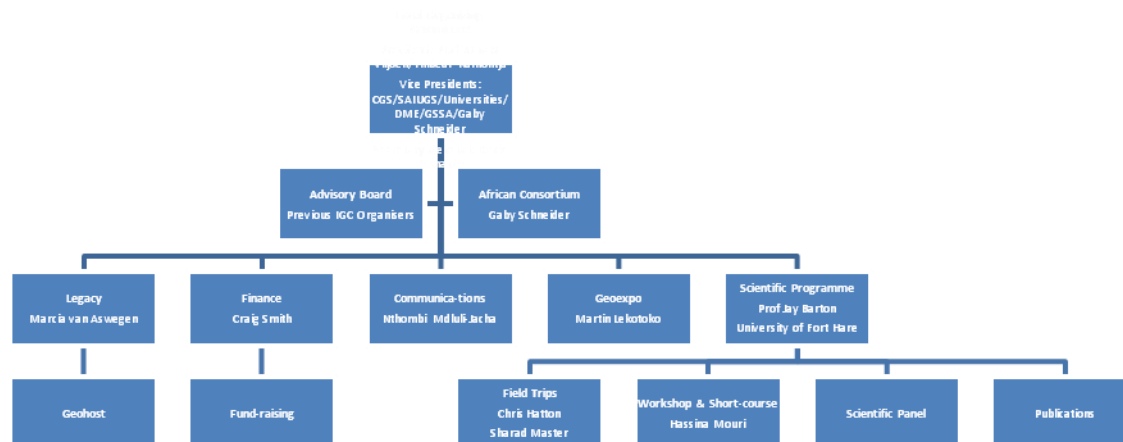
Mr Danie BARNARDO gave a presentation on the agreement that has to be concluded with the IUGS. Mr BARNARDO was involved in the initial contact with the IUGS, the Australian organizing committee and also tried to involve the Norwegian organizing committee in order to get as much information as possible. (See Appendix B).

## **4. THEME OF THE CONGRESS**

This could be decided at a later stage by the LOC.

## 5. LOCAL ORGANISING COMMITTEE AND SECRETARIAT

The following organizational chart represents the proposed LOC and its initial members:



## **Discussions:**

It was suggested that legal advice should be obtained from the CGS's legal advisor in terms of forming a legal body that has to be responsible to organize the IGC2016 in South Africa. It is the responsibility of the legal entity to put funds in place and carry all risks associated with the hosting of IGC2016. The LOC should drive the forming of this legal entity.

This proposed LOC is an interim structure to kick-start the process and could change in future. It was suggested to get industry people involved in this process, but that could be done at a later stage by the LOC.

## **6. OBSERVER STATUS IN THE AUSTRALIAN ORGANIZING COMMITTEE FOR IGC 2012**

The Australian Organizing Committee has offered an observer status to one person in their committee. The Secretary-General will represent the LOC on this committee. The first meeting is in the second quarter in 2010.

## **7. VENUE, DATE AND TIME**

The venue identified in the Bid Document is the Cape Town International Convention Centre. The venue has to be secured before the MoU is signed and a deposit should be paid. It was provisionally decided that the IGC conference should be held during the last 2 weeks of August during the holiday of the Northern Hemisphere. Dr Craig Smith of the GSSA undertook to approach the CTICC in this regard.

## **8. APPOINTMENT OF EVENT ORGANIZERS**

The appointment of a conference organizer should be put on tender. A very detailed tender document should be issued based on the required specifications.

## **9. KEY ACTIONS – WAY FORWARD**

- 9.1.1 Legal advice on the structure and formation of the Legal Entity should be obtained before the end of July 2009.
- 9.1.2 The LOC should look at the MoU and based on the legal opinion obtained, the MoU must be amended and signed.
- 9.1.3 Securing of the venue should be done by end of July 2009. **Action** : Craig Smith will book the venue.
- 9.1.4 A Tender Document should be prepared according to the specifications. **Action**: Gerhard Graham undertook to assist and that he will have it ready within a month.
- 9.1.5 The first meeting of the LOC should be diarized.
- 9.1.6 The Minister of Mineral Resources should be briefed.

9.1.7 Sponsorship is a crucial issue. A proper sponsorship campaign should be put in place. **Action:** Craig Smith will have a proper structure by the end of July. It was suggested to approach airlines, some of the wineries, banks, cellphone companies, the SA tourism board etc.

9.1.8 The Bid presentation (DVD) will be distributed to all members.

## **10. CLOSURE**

The meeting adjourned at 14h00.

**APPENDIX 2-**
**1<sup>st</sup> IGC LOC Committee meeting**

Date		12 August 2009	Venue	CGS Board Room	Time	10h00
Item No.	Item Description and Deliberations					Action By
	Administrative Issues					
1(a)	<u>Welcome</u>  The chairperson welcomed all present.					
1(b)	<u>Apologies</u>					
	Name		Constituency			
	1. Mr Mosa Mabuza 2. Dr Sospeter Muhongo		DME IUGS			
	Present at Meeting		Constituency			
	1. R.P. Viljoen 2. Chris Hatton 3. A.S. Conradie 4. J.M. Barton 5. Craig Smith 6. T. Ramontja 7. M.M. Lekotoko 8. J Van Wyk 9. N. Mdluli Jacha 10. P.K. Zawada 11. Danie BARNARDO 12. Sharad Master 13. Marcia van Aswegen 14. Hassina Mouri		Chairperson CGS CGS Consultant GSSA CGS CGS CGS CGS CGS WITS GSSA UJ/ GSAf			
	Agenda Issues					

2.	<p><b><u>Adoption of Minutes of the IGC Workshop held on the 3<sup>rd</sup> of July 2009</u></b></p> <p>The minutes of the IGC Workshop held on the 3<sup>rd</sup> of July 2009 were adopted as a true reflection of the proceedings.</p>	

## Deliberations:

It was stated that Dr Sospeter Muhongo should be appointed in the role of advisor. Dr Viljoen requested that a letter be written to Dr Gabi Schneider to inform her of her role or invite her to participate in the IGC organising committee. He further suggested that a letter be sent out to all heads of Geological Surveys to hear if they are willing to be involved in this process and if they can host field trips. A letter should be sent out to all Geological Departments of Universities in S.A. to inform them about the IGC 2016. It was also suggested that all Universities be approached again. Prof. Barton requested to be copied in all communication. All Universities should be sent a poster or marketing package to inform them continually about the event. It was also stated that institutes like Petrosa, CSIR & the Nuclear Energy Corporation, Mintek should be approached to buy into this process as well. In terms of sponsorship, all Universities, mining companies and Geological Surveys should be approached. It was stated that we should have a booth and prepare for the 2012 conference – we should showcase 2016 at the closing ceremony. An advertising banner should be attached at the bottom of all e-mails sent out.

The importance of the buy-in of the Government in this project was highlighted. Prof. Jay Barton raised a concern that it is risky to pick only one Minister because by doing that the door on communications could be closed to other channels. The Minister of Tourism and the Minister of Environmental Affairs should also be notified. Dr Ramontja stated that this process requires ownership by one particular department. It was suggested that Dr Ramontja have an informal discussion with the Minister of Mineral Resources and come up with a proposal of how to approach the Government or the President on this issue. It was decided that Dr Ramontja, Mr Mabuza and Alex Conradie should meet to discuss this issue.

The design of informational posters was discussed. It was stated that the branding of the Conference is very important and should be developed very early on in the process. It was also suggested that we have a series of posters over the next few years. It was suggested that Martin Lekotoko, Marcia van Aswegen and Hassina Mouri should have a meeting to discuss content, design, logo, branding etc of the banner. (The logo will occur on all correspondence and on the banner. The graphic designers should be properly briefed). The poster must be circulated to the committee for approval. Prof. Viljoen will give a short paragraph (content) for the poster. By the end of September we should have a proposal on a poster/banner. Feedback on that should be submitted within a week and then it should be printed by the end of October 2009. It should be confirmed from the IUGS if we may advertise the 2016 Conference before the 2012 Conference. The importance of a website was also highlighted.

In conclusion, the logo should be designed for the stationary and be sent out to all stakeholders

TR, MM,  
AC

ML, MvA,  
HM

RV

3.	<u><b>Adoption of Agenda</b></u>  The Agenda was adopted.	
4.	<u><b>Matters arising from the Minutes</b></u>	



4 (a)

**Feedback on Legal Opinion regarding Legal Entity (DJB)**

**Deliberations:**

Mr Barnardo said that the CGS obtained 3 quotations to appoint a legal company. The Norwegians formed a foundation. The foundation has an advisory board. This foundation was responsible for funding. Dr C. Smith stated that a serious fundraising strategy should be put in place for 2016 but it will only begin in 2010. In the meantime an account should be set up for immediate costs e.g. the posters etc. We need to set up the corporate structure first and then set up the accounts. It was suggested that DME provide seed funding of R200 000. The CGS Board should be approached on this matter first. The GSSA could put R50 000 aside, but it will be discussed at the next GSSA Manco meeting.

4(b)

Dr Craig Smith has confirmed that he has obtained some documentation from the CTICC and confirmed that the CTICC is booked for the first two weeks in August 2016, but the date could be moved to the last 2 weeks in August. It was suggested that Mr Danie Barnardo investigate what the rationale was behind the date for the Australians in 2012 as well as the rationale of the Norwegians in 2008. Everybody agreed on the first 2 weeks of August, but this should be investigated a little more before a commitment is made. The CTICC is big enough for the event and another wing will be completed by 2013/14. Two hotels might be used for some parallel sessions. In terms of the Opening & Closing Ceremonies, this will be hosted at the Greenpoint Stadium as well as the Conference Dinner for 10 000 people. There is a plan to hold the dinner there. The Trade Show will have to be set up after the Plenary Session. It was decided that Mr Danie Barnardo and Dr Peter Zawada should visit the CTICC and address all the abovementioned issues. In terms of finances, the first deposit of 45% will be due one year before the event. The next deposit 40% will be due two months of the event and the remainder of the money one month before the event. The cost of the venue will be approximately R400 000 per day in 2009 rands. Accommodation will be possible but we must make block bookings in time. The Conference Organizers must make a list of hotels available

**PZ & DB**

4(c)

4(d)

4(e)

The agreement with the IUGS must still be signed subject to the Legal Entity.

Covered in abovementioned conversations

**DB & PZ**

The CTICC gave some suggestions in terms of Conference Organizers. There is a list of organizers available and a mandate is needed for them. It should also be decided what kind of tender process is going to be used. The organizers should give a presentation on what they can do. It was suggested that different event organizers could manage specific parts of the Conference. It was noted that the cost of the conference is going to be significant and thus it was suggested that we should look at reducing the costs by getting the geological society involved in the organizing of the event, for example with organizing the field trips and registrations etc. It was suggested that the organizers should be given a mandate to do this.



5.

## **Finalisation of Subcommittees**

### **Marketing & Communications Subcommittee**

Nthombi is going to do a presentation on the M & C Plan at the next meeting. Nthombi has talked to media people to be involved with this process. Hassina Mouri has a contact at the SABC who will assist Nthombi. Prof. Viljoen will also give Nthombi the name of a contact person at 50/50. Nthombi's marketing presentation should tie in with the logo, the banners etc. Nthombi should also be present at the meeting with Martin Lekotoko discussing the design of the logo.

**RV, NMJ**

### **Legacy**

Definition: Legacy is part of the Geo-host programme and we are expected to create a legacy for the future. There were 550 people who were paid for at the previous IGC. Geo-host is a big political issue for the IUGS. The other issue of Legacy is also about what is going to be carried over from the IUGS process, what sort of research can be done in the country, what sort of things can be done that will outlive the IUGC meeting. At the next meeting each one of the conveners of the section should give a presentation on what they are going to do. Geo-heritage and geo-tourism is seen as a big aspect of the Legacy. People should be trained now for future field trips. Leaders should be asked to identify students with an eye on IGC in 2016. Universities should be contacted to ask them to indentify new people for training. It was suggested that Dr Peter Zawada must get a document ready which will go to various people.

**PZ**

### **Finance**

Gavin Hall, Jeanette McGill and Dr C Smith will be involved with this main committee with a few others who have not yet been identified. A subcommittee structure for sponsorship & fundraising should be formed by end of 2009 with strategy in place by 1<sup>st</sup> quarter in 2010. Estimated cost of R43 million for entire conference in 2009 rands.

### **Scientific Programme**

There will be individual publications for each session. Abstracts should be recovered in the cost of each individual section. Special requirements are set for publications by the IUGS. Each entity is stand alone. Dedicated people are needed to run the short courses, sessions etc. Each publication has to carry the designation of the IUGS 2016. A style/template format should be set for these publications. Abstracts will have to be screened by the scientific committee. Dr George Henry has volunteered his services for editing the publications. Solicit workshops 3 years prior to the conference.

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### **Field trips**

8.	<p><b><u>General</u></b></p> <p>Major African companies must be approached for sponsorship. Petroleum, (TOTAL, SHELL) should all be involved. It was suggested that someone from the oil companies must be part of the sponsorship committee.</p>	CS
9.	<p><b><u>Next meeting</u></b></p> <p>The next meeting is scheduled for the 4<sup>th</sup> of November 2009</p>	
10.	<p><b><u>Closure</u></b></p> <p>The meeting was adjourned at 13h00</p>	

## **Appendix 5.e.1.3 – AAWG**

### **AFRICAN ASSOCIATION OF WOMEN IN GEOSCIENCES**

Annual report 2009

#### **I - Preamble**

During geological meetings, the participation of women geoscientists was noticed and raised as a concern. In order to help to rectify this discrepancy, a decision was taken to form an association in order to encourage women geoscientists to participate in Earth Sciences related conferences and to inform about or become involved in gender issues related to the Earth Sciences. In 1995, AAWG was born in Nairobi, Kenya.

The objectives and purposes for which the Association is constituted are to: Promote the advancement of scientific and technological knowledge in the field of geosciences; Disseminate information on scientific and technical research and discoveries and promote public understanding of the role of geosciences in Africa's development; Establish and maintain relations between African scientists and the international scientific community;

Provide a forum for discussion and cooperation in geosciences and other related professions in Africa; Assist African governments in the quest for capacity building in geosciences and its applications; Cooperate with relevant African governments in the formulation of policies and program designed to encourage the development and application of geosciences for Africa's development; Publish and distribute a bulletin and/or other publications in the field of geosciences development in Africa; Organize conferences, seminars, symposia, training courses and workshops in various areas of geosciences; Highlight and seek solutions to problems faced specifically by women and grassroots communities in Africa in the area of geosciences; Encourage and mobilize support for education, training and research in order to assist African women in their acquisition of specialized skills for leadership in geosciences;

Identify, promote and advise on the importance and preservation of geological sites in Africa in collaboration with other stakeholders.

Building on this, the AAWG decided to hold its first workshop "Gender and environmental concerns among female geoscientists in Africa" in 2000 in Dar Essalam in Tanzania for the purpose of exchanging ideas, discussing results and encouraging women to present their work at scientific conferences. Consequently, the colloquium of the AAWG was born. Since then, the association is at its fifth biannual conference which will be entitled "Women and Geosciences for Peace" which will be held in Ivory Coast in 2010. The AAWG participated to the promotion of the International Year of Planet Earth "IYPE" by organizing its fourth conference in 2008 in Cairo (Egypt) under the title "Women and the IYPE". The third conference entitled "Women, Geosciences &

Development” was held in El Jadida (Morocco), in 2006. The second colloquium was held in Kampala (Uganda) “Enhancement of Geosciences for Environment Awareness, Poverty Alleviation and Sustainable Development”, in 2004. The first colloquium “Women Geoscientists: Past Achievements and Future Challenges” took place in Cape Town (South Africa) in 2002.

AAWG initiated an African Geoparks Network which is eligible to be an independent body, will be officially launched in 2010 during the AAWG fifth conference. The first international conference on African Geoparks will be organized in 2011 in Morocco. The development of a continent relies on the availability and the commitment of both men and women. Africa is a natural resources rich continent where there is still both a need and an [AFRICAN ASSOCIATION OF WOMEN IN GEOSCIENCES] Annual report 2009 opportunity to learn from past mistakes in the management of these resources in order to improve the living conditions of its peoples. AAWG is convinced that it is now becoming urgent for African countries to involve more women in the management of these natural resources to fuel sustainable socio-economical development in order to participate to establish a sustainable peace on the continent. The main challenge of AAWG is how to make women and geosciences a lever for a sustainable development in order to participate to establish a sustainable peace in Africa.

## II - Report on the main activities during the year 2009

### A/ Creation of a website [www.aawg.org](http://www.aawg.org)

The AAWG website is sponsored by the Geological Society of Romania. Thanks to Prof. Antoneta Segheti, our AAWG member, for having taking care of that issue. The website is managed by Mostapha Errafii, Professor at the Sciences Faculty of the Chouaib Doukkali University, El Jadida (Morocco). I would like to take this opportunity to thank him for all the efforts he is making in order to make the AAWG website meet the international standard. Ezzoura ERRAMI is taking care of the collect and the edition of data to be published on the website. A forum of discussion is progress.

### B/ Pre-congress meeting of the fifth conference of the African Association of Women in Geosciences “AAWG” entitled “Women and Geosciences for Peace”.

The pre-congress of the fifth conference of the AAWG was held in Abidjan, Ivory Coast (4 - 8 May 2009) at the headquarters of PETROCI Holding. It was well attended by representatives from the Governing Council (GC) of AAWG, members of AAWG-CI, dignitaries and guests from PETROCI Holding. During the opening ceremony held on the morning of the Monday 4th May, 2009, the President the fifth congress and President of the African Association of Women in Geosciences Ivory Coast Chapter “AAWG-CI” Dr. Juliette TEA, welcomed the dignitaries and participants and thanked the supporters and sponsors of the meeting. Prof. Ezzoura ERRAMI, AAWG President addressed the gathering and launched officially the AAWG-CI. The opening ceremony of the meeting was concluded by Mr. Kassoum FADIKA, Director General of PETROCI Holding, who thanked the members of the AAWG GC for choosing Ivory Coast as venue of the fifth conference of AAWG.

The opening ceremony was closed by a talk entitled “Women and Geosciences for sustainable development: Role of African Association of Women in Geosciences” presented by the AAWG President. The presentation was followed by a long discussion where the small number of women involved in geosciences was raised a concern. In order to increase women participation in Geosciences, it was proposed to organize open doors in order to sensitize young women on the importance of Earth Sciences for the society and also employment opportunities offered. In order to encourage women to choose geosciences as career, AAWG proposed to create Excellency prizes. It was agreed that three prizes will be awarded during the 5th AAWG conference in order to encourage young women to be more involved in geosciences for society. One for the best poster presentation and one for the best oral presentation and one for the best working group of the young women involved in the organisation of the 5th AAWG conference.

Other issues were discussed, as how to take part to all the international initiatives as the IYPE to show that we the women geoscientists from African countries are able to meet our commitments. The rest of the day was dedicated to the discussion and preparation of the first circular related to the fifth AAWG conference which will be organized under the title “Women and Geosciences for Peace”.

The Second day, Tuesday 5th May 2009 was began with an address by the AAWG President Prof. Ezzoura ERRAMI on ICSU-ROA, IUGS, IYPE, YES congress..etc. The rest of the day was dedicated to the revision of the AAWG constitution. In order to make the association open to all women, the name of the association was changed from "Association of African Women Geoscientists" to “African Association of Women in Geosciences”.

The third day, Wednesday the 6th May 2009, was dedicated to the discussion of the AAWG posters, flyer, membership cards, website and AAWG e-bulletin. The first bulletin will be published by the end of the year 2009.

AAWG is discussing the organisation of a round table on “Women and Geosciences” during YES congress to be held in Beijing in 2009. It was agreed that some GC members should participate; their presence with young women from all over the word will help to increase the AAWG visibility and will get opportunity to develop new partnerships. During the meeting new task groups were proposed and adopted by the members present at the meeting:

- a) Statistics of women in geosciences at the African level;
- b) Introduction of African geology through the AAWG website. During the same day, the African Geoparks Network “AGN” was initiated by the AAWG President and adopted by the members present at the meeting. The AGN aims to identify, promote, and advise on the importance and preservation of geological sites in Africa in collaboration with other stakeholders. The Network, which is an initiative taken by the AAWG is eligible to be an independent body, will be officially launched in 2010 during the fifth conference. The first international conference on African geoparks will be organized during 2011 in Morocco. The day ended with a meeting with young women from PETROCI holding in

order to address the problems they are facing in the petroleum industry and try to advice through the experiences of women on the leadership in the same field.

Figure 1. The opening ceremony of the AAWG pre-congress. PETROCI Director General with AAWG President and General Secretary.

Figure 2. Investiture of the AAWG-CI by the AAWG President.

Figure 3. Meeting of the AAWG GC with a- young women from PETROCI Holding; b- girls from Notre Dame of Plateau College, Abidjan.

On Thursday the 7th May 2009 was dedicated to visits of potential sites where the fifth conference “CAAWG5” will be held. ViTiB situated in Grand-Bassam was chosen as venue for the CAAWG5. The day ended with a meeting attended by ca 200 girls from Notre Dame of Plateau College in Abidjan where interactions/ discussions were focussed to increase awareness among the girl students on the importance of Earth sciences for society and role of women geoscientists.

During the fifth day, Friday the 8th May 2009, AAWG GC members met with PETROCI Director General in order to convey their thanks for his support. The team also met with the Minister of Mines and Energy of Ivory Coast, with a councillor from the Moroccan embassy and with the Ambassador of Tunisia in order to introduce the association and its fifth conference and to request their support for the CAAWG5. They were pleased by the visit and they promised their support.

Figure 5. AAWG GC with the Minister of Mines and Energy of Ivory Coast.

We would like to express our deep appreciation and thanks to:

- a) Sir Kassoum Fadika, Director General of PETROCI Holding for his moral and financial support for the fifth conference and its pre-congress;
- b) Dr. Juliette Tea and her team for allowing some of the GC to meet one year after the bureau election in Cairo and for their excellent arrangements and facilities in organizing the AAWG pre-congress;
- c) The AAWG GC members for attending and devoting outstanding attention to the AAWG issues.

C/ First International Conference on Girls and Women in S & T in Africa, Bamako, Mali, 13-15 July 2009

AAWG President, Ezzoura ERRAMI participated by a conference entitled “Women and Geosciences for sustainable development in Africa: African Association of Women in Geosciences “AAWG”. This participation which was the only one related to Earth Sciences helps to increase the visibility of the association and also to introduce Earth Sciences as one of the scientific fields that needs more intention from the organizers of such conferences.

D/ Women in Geosciences Workforce roundtable



The African Association of Women in Geosciences co-organized with UNESCO Paris the roundtable “Women in the Geosciences Workforce” on October 27th afternoon from 1:30 pm to 5:00 pm (Beijing Time) during the Young Earth Sciences Congress Roundtables Symposia (see detailed report below).

#### Roundtable Organizers

Y.E.S. Organization Lead: Dr. Leila M. Gonzales, American Geological Institute  
Prof. Ezzoura ERRAMI, African Association of Women in Geosciences

#### Roundtable Moderators

Ms Jo Venus, Geological Society of London  
Prof. Ezzoura ERRAMI, African Association of Women in Geosciences

#### Objectives and sessions description

The roundtable entitled “Women in Geosciences Workforce” focused on the challenges women face as geoscientists both while pursuing their degrees and as geosciences professionals. In order to reach that goal the roundtable was divided in two sessions. The first session, dedicated to five talks including one virtual, was composed of two parts : the first part was composed of three talks of three representatives of three associations one continental and two nationals dealing with gender and geosciences. The introduction of the African Association of women in Geosciences “African Association of Women in Geosciences “AAWG”: Challenges and Perspectives” was made by Prof. Ezzoura ERRAMI, AAWG President.

The second talk presented by the Past President of the Association for Women Geoscientists (USA) Ms Laurie Scheuing was entitled “Women in Geosciences: An update on status and strategies for the future”.

The third talk entitled “Mongolian Women in Geosciences” was given by Prof. OCHIR Gerel, Mongolian Association of Women Geoscientists President. Women in Mongolia are involved in all spheres of society, including Geosciences. Women now comprise 35% of Bachelor’s degree and from 35 to 50% of Master’s degree recipients in Geology from both universities in the country: the Mongolian University of Science & Technology and the National University of Mongolia. Also, the proportion of female PhD students has increased in last 10 years. The number of faculty women also has increased from 11 to 33%. Women geoscientists are very active in international cooperation, and 70% of women faculty are involved in international projects and projects developed in cooperation with mining exploration companies. The proportion of women working in research institutions (Paleontological Center and Institute of Geology and Mineral Resources, Mongolian Academy of Sciences) is relatively high (45- 56%). Nevertheless, the proportion of women in chair positions is relatively low, especially in governmental institutions and in industry (21-28%). In spite of high success of women, gender problems still exist in the Mongolia’s geoscience community. It is first of all equal job opportunity problem: the proportion of women faculty declines with increasing rank; women are not being hired into high position jobs at companies and governmental

institutions, and women may not be promoted at the same rate as men. With female students, problems can arise for those with children.

The major goals of the Association of Mongolian Women Geoscientists (AMWG), which was established in 2005, is: (1) To increase number of women geologists in industry; (2) To provide a diverse approach to the study of geosciences; (3) To promote the professional development of members; and (4) To assist in employment. AMWG activity is focused on the study of gender concerns in Mongolia. It aims to enhance the professional growth and advancement of women geoscientists in society; encourage the participation of women in the geosciences, and for exchange of educational, technical, and professional information; and to establish relationships with other similar women organizations for developing the international cooperation.

The second part of the first session was dedicated to the testimony of two generations of women geoscientists coming from Africa but from two different cultures Arabic and African culture. Dr. Juliette Tea-Yassi, President of the African Association of Women in Geosciences-Côte d'Ivoire chapter talked about her experience as the first Ivorian woman Geoscientist in a National Petroleum Company in Côte d'Ivoire in the 1980s. She highlights the problems she faced as a student, wife, and mother; the problems she faced as the only woman geologist in the company; the importance of the challenges that she faced; and discusses the amount of work required of a woman geoscientist if she wants to have a successful career.

Ms. Soumaya Ayadi from the African Association of Women in Geosciences shed the light on "The Role of Tunisian women in environmental policy in Tunisia". With their particular sensitivity to the various environmental and related health problems, women are playing an active role on familial, academic, and social levels. Their participation in the environmental policy now exceeds their educational role which begins at home. They are also participating in increasing the awareness of the dangers and of the daily measures needed for better management. Deeply convinced by the importance of this problem and the danger of its impacts, women are participating actively as geologists, engineers, and experts in the decision-making, the execution and the implementation of many environmental projects.

The second session was dedicated to two working group where four main questions were discussed: 1) The Problems faced by young women geoscientists and how can national and international organizations dealing with geosciences and gender help to solve them;

2) How can these organization participate to increase the involvement of women in geosciences and especially in the leadership of a field considered as dedicated to males?;

3) What is the relationship between women, Geosciences and cultures?;

4) How to make Women and Geosciences a lever for socio-economical development in order to participate to establish a sustainable peace.

### Summary of Working Group Session Results

The main problems faced by women geoscientists are:

- \*Low involvement of women in geosciences was mentioned and raised as a concern;
- \*Field work is the main problem faced by women;
- \*Professional women struggle to balance their devotion to family with their commitment to their geoscientific careers;
- \*The number of women in leadership is still very low. However, leadership is related to personality and skills and not exclusive to gender but it doesn't mean that skilled women have the same opportunity as men.
- \*In the developing countries as it the case in many African countries, poverty came to complicate the challenges women are facing as wives, mothers, educators, workers...etc.

Generally, successful women in developing countries are self-made because they have to balance many personal and societal issues to move ahead.

The main recommendations raised from the discussion during this roundtable are as follows:

- \*Women should determine whether they are able to deal with geosciences or not before choosing geoscientist career;
- \*In order to motivate people to put their ideas and ideals into action, women should be motivated and passionate by the job of Earth Scientists;
- \*Education is very important "educate a women is to educate a community";
- \*Self confident and personality is a key point;
- \*Governments, schools and media should give a positive message about gender;
- \*Mentoring is a very important issue that provides young women geoscientists with role models and helps them better understand their environment and to learn how deal with it in order to move ahead;
- \*There is no competition between women and men. Partnership and complementary are required;
- \*Women should be a geologist in the field before being a woman;
- \*Women should never ask for favors as a woman;
- \*No positive discrimination is required;
- \*Create an international framework where communication can be promoted between individuals and organizations and where geoscientific projects can be elaborated in order to help to build women capacity through national and international cooperation. Some participants to the roundtable working groups.

We would like to thank, on behalf of the African Association of Women in Geosciences, UNESCO (for the funding) and CIFEG (for the logistic) for having giving the opportunity of three of our members to attend physically this roundtable.

## E/ UNESCO Earth Science Education Initiative in Africa

AAWG as an associate partner to the UNESCO Earth Science Education Initiative in Africa was and will be represented in three of the five planned regional workshops:

Assiut, Egypt (28-29 October, 2009); Dakar, Senegal (9-10 February, 2009); Kinshasa, DRC (4-5 February, 2010).

Thanks to CIFEG, MRAC, IYPE and Cairo UNESCO office for having giving the opportunity to 5 of our members to attend three of the five planned workshops.

#### F/ Arts and Earth Sciences competition

The Association Civilizations Without Borders and the African Association of Women in Geosciences are organizing in collaboration with other stakeholders an artistic and cultural competition entitled “Arts and Earth Sciences” for students from the university Chouaib Doukkali and scholars from all the secondary schools from El Jadida Provinces around 20). The aim of this competition is the promotion of Earth Sciences and also to promote the International Year of Planet Earth.

This initiative is partly sponsored by the Faculty of Sciences of El Jadida, Moroccan Kingdom Academy and many individuals. Many thanks to them for that support. The Ceremony of awards will be held during the first journeys of Earth Sciences of Doukkala-Abda Region (for more details point G)

#### G/ First Journeys of Earth Sciences of Doukkala-Abda Region, El Jadida, Morocco

These journeys entitled “Earth Sciences for Humanity” will be organized by the Association Civilizations Without Borders and the African Association of Women in Geosciences in collaboration with the Geology Department of El Jadida. They will take place in the Faculty of Sciences of El Jadida (Morocco) the 25th, 26th, 27th December 2009. The first day will be dedicated to conferences and presentations made by lecturers and researchers students, the afternoon will be devoted to a roundtable where the question “Is Earth Sciences Education in Chouaib Doukkali University fit with the socio-economical need of the region.

During the second day morning, a cultural competition will be organized between the Chouaib Doukkali University students in order to sensitize on the importance of Earth Sciences for the environment. During the same day, an exposition of geological samples, documentary films projection and an exposition of CiWiB, AAWG, IUGS and IYPE brochures and also an introduction to these organizations through their websites.

The afternoon of the second day will be dedicated the Ceremony awards of the all the Earth Sciences cultural competition organized during the Year 2009.

The third day will be dedicated to an excursion in El Jadida Province in order to introduce the environmental problems and also the initiatives taken by the local authorities in order to help to minimize their impacts on human lives and what Earth Sciences can do to help decision makers in that issue.

#### H/ AAWG national chapter of Senegal

During the Dakar workshop organised by the UCAD, CIFEG and UNESCO the 9 and the 10<sup>th</sup> December 2009, the National Chapter of Senegal was created. It is chaired by Mrs Sophie Siby, Hydrogeologist and past minister of communication of Senegal. Group photo of the new elected bureau of AAWG-Senegal With AAWG President, UNESCO representative, the President of the Geological Society of Africa, the representative of Canada embassy and the Director of Geology and Mines of Senegal.

#### I/ African Geoparks Network “AGN”

The initiative which was taken and supported by the African Association of Women Geosciences has got until now the support of the Geological Society of Africa, International Council for Sciences Regional Office of AFRICA, UNESCO Cairo Office and the International Union of Geological Sciences. The AGN will be launched officially during the 5th Conference of the Association which will be held at Côte d’Ivoire in 2010.

*J/ Publications* ERRAMI Ezzoura, Segheti Antoneta. & Randell Stephenson 2009. Aspects of geological knowledge for sustainable development in Africa: Women in African Geosciences. Journal of African Earth Sciences. Volume 55, issues 1-2. ISSN 1464-343X. ERRAMI E., 2009. Pre-congress meeting of the fifth conference of the African Association of Women in Geosciences entitled “Women and Geosciences for Peace”. Episodes, 32 (3), 210-211.

#### K/ E-Bulletin

The AAWG first e-bulletin will be ready by the end of 2009. During 2010, two bulletins will be published. Our hope is to have a paper bulletin.

#### III - Countries represented in AAWG

Algeria, France, Cameroon, Ivory Coast, Egypt, Ethiopia, Djibouti, Germany, Ghana, Kazakhstan, Kenya, Malawi, Morocco, Mozambique, Nigeria, Norway, Romania, Senegal, South Africa, Swaziland, Tanzania, Tchad, Togo, Tunisia, Uganda, Zimbabwe. Mauritania, Mali and Libya are in progress.

#### IV - Activities in progress

1/ The development of a continent relies on the availability and the commitment of both men and women. Africa is a natural resources rich continent where there is still both a need and an opportunity to learn from past mistakes in the management of these resources in order to improve the living conditions of its peoples and to establish a sustainable peace on the continent. In that way, the African Association of Women in Geosciences “AAWG” decides to organize its fifth conference at Grand Bassam (Ivory Coast) from 11th to 17th April, 2010 with the theme: “Women & Geosciences for Peace”.

2/ The first international conference of African Geoparks will be organised in 2011 in Morocco.

3/ The registration of the Association and the opening of an international account are in progress. During the Abidjan pre-congress meeting it was agreed that Côte d'Ivoire will take care of the permanent secretariat of the Association.

#### V - Perspectives

Organisation of summer schools  
Organisation of field trips at the African level  
Generalisation of the competition "Arts and Earth Sciences" at the African level  
Involvement in scientific projects.

#### VI - Requested grants

The AAWG requests 10000 Euros for 2010. This amount of Money will serve the objectives of the association and especially the activities in progress (see above). A detailed report will be delivered at the end of the year. The logo of the Union will appear on all the activity of the Association where the IUGS money will be used.

#### VII - Acknowledgements

We would like to thank, on behalf of the African Association of Women in Geosciences all international and national public and private organisms which supported and are supporting morally and/or financially our activities.

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## **International Union of Geological Sciences**

REPORTING FORM FOR CONSTITUENT BODY  
2009

**TITLE OF CONSTITUENT BODY:** Geoitalia, FIST-Onlus

### **OVERALL OBJECTIVES and Organization:**

Geoitalia”, the Italian Federation of Earth Sciences, is a non-profit making organisation of social utility, hereinafter referred to as FIST Onlus. It was founded on 21 November 1996, on the initiative of the voluntary association Italian Federation of Earth Sciences, by the following scientific associations: Italian Geological Society, Italian Mineralogy and Petrology Society and Italian Palaeontology Society.

FIST Onlus aims to accomplish goals of social value by undertaking activities directed towards Italy’s economic, social and cultural development, and by promoting and disseminating knowledge of the Earth, geological risks, natural processes determining environmental features, and forms of global change.

To achieve this objective, FIST Onlus:

- a) promotes collaboration among scientific and cultural associations active in Italy in the field of Earth Sciences, with the aim of supplying the Italian scientific community with a unitary reference point representing Earth Sciences;
- b) seeks to represent demands and needs arising from the numerous aspects of Earth Sciences with regards to society, in dealings with public and private organisations;
- c) promotes collaboration among other scientific federations, research bodies, university institutions and other institutions operating in the field of Earth Sciences;
- d) promotes and coordinates initiatives geared towards the harmonious development of Earth Sciences as a whole, the strengthening of their social role, and their cultural impact in all appropriate environments;
- e) contributes to stimulating among pupils of every type and level of school an interest in knowledge of the birth and evolution of the planet on which they live, showing them how they can contribute to safeguarding its future capacity to sustain life;
- f) stimulates and promotes the dissemination of information, statements and opinions concerning the field of Earth Sciences through the mass media;
- g) promotes collaboration with foreign scientific institutions active in the field of Earth Sciences.

In particular, FIST Onlus periodically organises (generally every two years) a conference open to scholars and professionals active in the field of Earth Sciences, entitled: “Geoitalia 20XX, Forum Italiano di Scienze della Terra”.

**ORGANIZATION:** In *FIST-Onlus*, there is no individual membership. The President of FIST Onlus is elected by the Assembly at least eighteen months prior to the beginning



of her/his mandate; in the period of time between her/his election and taking office she/he assumes the title of "President elect". The President's mandate is of two-year duration, starting from the date of taking office as President; the President may be re-elected consecutively only once; she/he is responsible for the coordination of all activities, in particular, those arising from the organization of the biennial Forum

**CHIEF ACCOMPLISHMENTS IN 2009:** In 2009 FIST Onlus pursued its institutional goals through:

- a) the organization of the 7th Forum Geoitalia 2009, in Rimini;
- b) the printing and publication of the Geoitalia periodical review;
- c) the diffusion of information online
- d) the coordination of cultural activity in the field of Earth Sciences. Promotion of all geosciences among students, ministries and public.

The Forum was held in Rimini (9-11 september 2009) at the Palacongressi della Riviera di Rimini (Italy). The Program included more than 160 Thematic and Disciplinary Sessions, 16 Workshops, and 9 Short Courses. More than 1600 research participants including about 10% scientists from abroad.

**NAME:** Rosanna De Rosa

**POSITION:** President of Geoitalia, FIST-Onlus

**DATE:** 11 february 2010

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## **Appendix 7.a. Earth Sciences at UNESCO**

### **International Geoscience Programme (IGCP) and geoscience cooperation with IUGS**

#### ***Report for the IUGS by the IGCP Secretary for 2009***

##### **Content:**

- 1. Overview of current Board members**
- 2. Information on IGCP projects**
- 3. Publications**
- 4. Finances**
- 5. Funding status of IGCP Projects in 2009**
- 6. IGCP Projects active in 2009**
- 7. Proposals received in 2009**
- 8. Proposals to improve IGCP reporting**
- 9. Information regarding cooperative efforts of IUGS and UNESCO in the Earth sciences**

#### **1. Overview of current Board members**

##### **Theme Group Resources** - earth resources sustaining our society

Agarwal, Mandira

Kalindekafe, Leonard

Lips, Andor (Theme group leader)

OCHIR, Gerel

Pandit, Sundar

NIE Fengjun (new member in 2008)

##### **Theme Group Global Change and Evolution of Life** evidence from the geological record

Harper, David

Kuijpers, Antoon  
Lukeneder, Alexander  
Märss, Tiiu  
Mc Keever, Patrick  
Vajda, Vivi (Theme group leader and Chairperson of the IGCP Scientific Board)  
Vickers-Rich, Patricia  
Peter Koenigshof  
Narbonne, Guy

**Theme Group Geohazards** - geohazards: mitigating the risks

Canuti, Paolo  
Gosar, Andrej  
Shroder, John  
Slaiupa, Saulius  
Stewart, Iain (Theme group leader)  
Ulusay, Resat

**Theme Group Water-** geoscience of the water cycle

Al-Sultan, Maitham  
Bredehoeft, John  
Georgiadi, Alexander  
Lyons, William  
Saraf, Arun  
Snoussi, Maria (Chair)  
Pulido-Bosch, Antonio

**Theme Group Deep Earth-** the deep earth: how it controls the environment

Ainsaar, Leho  
Dilek, Yildirim (Chair)  
Gibson, George  
Rapalini, Augusto  
Shuwen Dong (extended term)  
Toteu, Felix  
Jin Xiaochi (new member in 2008)

## **2. Information on IGCP projects**

### **IGCP Projects according to their year of termination**

**2009:** 480, 493, 495, 497, 499, 500, 502, 503, 506, 509, 510, 511, 512, 513, 514, 516, 519, 521, 523, 524 (twenty)  
**2010:** 507, 543, 555 (three)  
**1011:** 526, 529, 534, 540, 545, 546, 557 (seven)  
**1012:** 557, 559, 565, 567, 572 (five)  
**1013:** 571, 574, 580, 581, 582 (five)

### **3. Publications**

The English version of the IGCP annual report 'Geological Correlation No.36' was put on the IGCP website as e-version, with the support of IUGS.

### **4. Finances**

The statistics of the financial situation of IGCP projects from 1988 to 2009 is listed in Table 1 below.

**Table 1**

Year	UNESCO	IUGS US	Total	No. of projects		Funded	Average per project
				Overall	OET		
Financial figures in US\$1,000 units							
1988	173.3	104.0	277.5	53	50	3	5.5
1989	143.1	109.9	253.0	55	50	2+3	5.0
1990	185.0	121.0	306.0	61	54	6+1	5.6
1991	185.0	137.0	322.0	59	55	3+1	5.8
1992	170.0	137.0	307.0	56	50	5+1	6.1
1993	173.0	147.2	320.2	60	56	4	5.7
1994	190.3	137.0	327.3	54	50	4	6.5
1995	197.7	143.5	341.2	53	51	2	6.6
1996	199.8	130.0	329.8	56	49	7	6.7
1997	204.0	55.0	259.0	53	45	8	5.8
1998	205.0	90.0	295.0	49	40	9	7.4
1999	190.0	90.0	288.0	43	40	3	7.2
2000	187.7	90.0	277.7	45	40	5	6.9
2001	184.4	95	279.4	41	37	4	7.5
2002	170.0	95.0	265.0	39	33	4	8.0
2003	180.4	95.3	275.7	42	37	5	7.5
2004	180,5	95,5	276.0	39	37	2	7.5
2005	163.0	95.0	258.0	48	47	1	5.5

Year	UNESCO	IUGS	Total	Projects Overall OET		Funded	no funding	Average per project
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2006	135.5	61.5	198.0	44	40	4	-	4.95
2007	162.0	58.5	220.5	47	44	2	1	5.01
2008	105.0	60.0	165.0	38	33	5	-	5.00

Year	UNESCO	China	IYPE	IUGS	Total	Project Overall Funded			no funding	Average per project
2009	130.0	20.0	50.0	28.0	228.0	37	30	7	-	6.6

In 2009, about 23% of the IGCP budget (UNESCO contribution) was decentralized. 8 projects have been decentralized to the UNESCO Offices in the following cities: Jakarta (4 projects), Montevideo (1 project), and Nairobi (2 projects).

This year the IGCP profited from a contribution from the People's Republic of China of 20,000USD, which is foreseen to become a regular annual contribution to the IGCP. Further, the IYPE contributed with an amount of 50.000USD to the IGCP project funding.

## 5. Funding status of IGCP Projects in 2009

Completed	Terminated	On extended term	Medium low	Medium medium	Medium high	High	Young Scientists Projects
		493	526	510	480	506	
		495	540	514	507	521	
		497	557	516	509	456	
		499		523	511		
		500		524	512		
		502		529	513		
		503		559	519		
				565	543		
				567	555		
				571			
				572			
				574			
				580			

				581			
				582			

In the follow-up to the 37<sup>th</sup> IGCP Scientific Board Meeting, after analysis of the recommendations made by the Scientific Board concerning the on-going projects and the new project proposals, IUGS and UNESCO jointly decided to only accept the five highest ranking new project proposals for funding. This decision was made by taking into consideration the funds available and the overall strategy to reduce the number of IGCP projects.

## 6. IGCP Projects active in 2009

No. title,  
project leader(s),  
duration (OET – on extended term)  
website(s)

### 480 Tectonics of Central Asia

B. Natal'in (Turkey), A. Yin (United States), A. M. C. Şengör (Turkey), M. Kuzmin (Russia), Shuwen Dong (China)  
2005-2009

<http://www.igcp.itu.edu.tr/>

### 493 The Rise and Fall of the Vendian Biota

M. FEDONKIN (Russia), P. Vickers-Rich (Australia), J. Gehling (Australia)

2003-2007 (OET)

<http://www.geosci.monash.edu.au/precsite>

### 495 Quaternary Land-Ocean Interactions

A. Long (United Kingdom), S. Islam (Bangladesh)

2004-2008 (OET)

[www.geography.dur.ac.uk/projects/igcp495](http://www.geography.dur.ac.uk/projects/igcp495)

### 497 The Rheic Ocean

U. Linnemann (Germany), R. D. Nance (United States), M. de Wit (South Africa), E. Bozkurt (Turkey), P. Kraft (Czech Republic), F. Pereira (Portugal), R. A. Strachan (United Kingdom)

2004-2008 (OET)

<http://www.snsd.de/igcp497/>

### 499 Devonian land-sea interaction: Evolution of Ecosystems and Climate in the Devonian

P. Königshof (Germany), J. Lazauskiene (Lithuania), E. Schindler (Germany), Volker Wilde (Germany) and N. Yalçin (Turkey)  
2004-2008 (OET)

<http://www.senckenberg.de/igcp-499>

### **500 Dryland Change: Past, Present, Future**

D.Thomas (United Kingdom)

2004-2008 (OET)

<http://igcp500.ouce.ox.ac.uk/>

### **502 Global Comparison of Volcanic-hosted Massive Sulphide Districts**

R.Allen (Sweden), F. Tornos (Spain), J. Peter (Canada), N. Çagatay (Turkey)

2004-2008 (OET)

[<http://www.1tu.se/tkg/>](http://www.1tu.se/tkg/)

[<http://www.1tu.se/tkg/avd/kgo/forsk/IGCP>](http://www.1tu.se/tkg/avd/kgo/forsk/IGCP)

### **503 Ordovician Palaeogeography and Palaeoclimate**

T. Servais (France), D.A.T. Harper (Denmark), J. Li (China), A. Munnecke (Germany),

A. W. Owen (United Kingdom), P.M. Sheehan (United States)

2004-2008 (OET)

<http://sarv.gi.ee/igcp503/>

### **506 Marine and Non-marine Jurassic**

Jingeng Sha (China), Nicol Morton (France), W. A.P. Wimbledon (United Kingdom),

Paul E. Olsen (United States), Alberto G. RICCARDI (Argentina), Grzegorz (Gregory)

Pieńkowski (Poland), Yongdong Wang (China)

2005-2009

<http://www.nigpas.ac.cn/IGCP506index.asp>

### **507 Paleoclimates of the Cretaceous in Asia**

Yong Il Lee (Korea), Xiaoqiao Wan (China), Takashi Sakai (Japan), and Krishnan Ayyasami (India)

2006-2010

<http://igcp507.kopri.re.kr/>

### **509 Palaeoproterozoic Supercontinents and Global Evolution**

S.M. Reddy (Australia), D. Evans (United States), R. Mazumder (India)

2005-2009

<http://earth.geology.yale.edu/igcp509/>

### **510 A-type Granites and Related Rock through Time**

Roberto Dall'Agnol (Brazil), Carol D. Frost (United States), O. Tapani Rämö (Finland),

L.J. Robb (South Africa)

2005-2009

<http://www.igcp-510.org>

### **511 Submarine Mass Movements and Their Consequences**

Jacques Locat (Canada), Juergen Mienert (Norway) and Roger Urgeles (Spain)- (IOC)

link)

2005-2009

<http://www.geohazards.no/IGCP511>

## **512 Neoproterozoic Ice Ages**

Graham A. Shields (Australia), Emmanuelle Arnaud (Canada)

2005-2009

[www.IGCP512.org](http://www.IGCP512.org)

## **513 Karst Aquifers and Water Resources**

Chris Groves (United States), Yuan Daoxian (China), Bartolome Andreo-Novarro (Spain), Heather Viles (United Kingdom)

2005-2009

<http://hoffman.wku.edu/igcp/513.html> (General information)

<http://hoffman.wku.edu/karst2007/k2007.html>

<http://www.wku.edu/cehp>

[http://www.cosis.net/members/meetings/sessions/information.php?p\\_id=247&s\\_id=4433](http://www.cosis.net/members/meetings/sessions/information.php?p_id=247&s_id=4433)

## **514 Fluvial Palaeosystems: Evolution and Mineral Deposits**

A. Duk-Rodkin (Canada), Baohong Hou (Australia), Li Ziyang (China), Vladimir Dolgoplov (Kazakhstan), N. Patyk-Kara (Russia) passed away in 2008

2005-2009

<http://www.igem.ru/igcp514/>

## **516 Geological Anatomy of East and South East Asia**

Ken-ichiro Hisada (Japan), Punya Charusiri (Thailand), Byung-Joo Lee (Rep. of Korea), Xiaochi Jin (China)

2005-2009

<http://staff.aist.go.jp/hara-hide/igcp516>

## **519 Hydrogeology, Hydrochemistry and Management of Coastal Aquifers on the Atlantic Coast of South America**

Emilia Bocanegra (Argentina), Emilio Custodio (Spain), Marisol Manzano (Spain), Gerson Cardoso (Brazil), Jenny Reynolds Vargas (Costa Rica),

2005-2009

<http://www.mdp.edu.ar/exactas/geologia/cgcyc/hidrogeologia.html>

<http://www.mdp.edu.ar/exactas/geologia/cgcyc/iugs/Index.htm>

## **521 Black sea Mediterranean Corridor during the last 30 ky: Sea level change and human adaptation**

Valentina Yanko-Hombach (Canada), Yucel Yilmaz (Turkey), Pavel Dolukhanov (United Kingdom)

2005-2009

<http://www.avalon-institute.org/IGCP>

<http://black.sealevel.ca>



<http://www.bridge.bris.ac.uk/projects/EMBSECBIO>

<http://www.paleontol.geo.sfsu.edu.ru>

**523 GROWNET – Global Ground Water Network**

Shrikant Daji Limaye (India), Antony J Reedman (United Kingdom)

2005-2009

<http://www.igcp-grownet.org>

**524 Arc-Continent Collision**

Denis Brown (Spain), Chi-Yue Huang (Taiwan)

2007-2009

[www.ija.csic.es/gt/IGCP524](http://www.ija.csic.es/gt/IGCP524)

**526 Risks Resources and Record of the Past on the Continental Shelf**

Francesco Latino Chiocci (Italy), Lindsay Collins (Australia), Michel Michaelovitch de Mahiques (Brazil), Renée Hetherington (Canada)

2007(-2011).

<http://gte526.geoma.net>

**529 Availability of groundwater resources in selected urban areas in Southern African Development Community (SADC) region**

Imasiku A. Nyambe (Zambia)

2007-2011

**540 Gold-bearing hydrothermal fluids of orogenic deposits**

P.S. Garofalo (Italy), J.R. Ridley (USA), Vsevolod Prokof'ev (Russia)

2007-2011

[http://www.geomin.unibo.it/igcp\\_540](http://www.geomin.unibo.it/igcp_540)

**543 Low-temperature thermochronology: applications and inter-laboratory calibration**

Massimiliano Zattin (Italy), J. I. Garver (USA), Vitaliy A. Privalov (Ukraine), Alexei V. Soloviev (Russia), Cornelia Spiegel (Germany), Maarten de Wit (South Africa), Dewen Zheng (China)

2007-2010

<http://www.geoscienze.unipd.it/~zattin/Home.html>

**546 Subduction zones of the Caribbean**

Antonio Garcia-Casco (Spain), Uwe Martens (USA)

2007-2011

<http://www.ugr.es/~agcasco/igcp546/>

**555 Rapid Environmental/Climate Change in the Cretaceous Greenhouse World**

Chengshan Wang (China), Robert Scott (USA), Hugh Jenkyns (UK), Michael Wagreich (Austria), William Hay (USA); Zakharov Y.D. (Russia)

2007-2010

[www.cretaceousworld.com/igcp555](http://www.cretaceousworld.com/igcp555)

**557 Diamonds, xenoliths and kimberlites**

Holger Sommer (Botswana), Klaus Regenauer-Lieb (Australia), Christoph Hauzenberger (Austria) Jonathan Kashabano (Tanzania), Gétan Moloto-A-Kenguemba (Central African Republic)

2007-2011

<http://igcp557.uni-graz.at/>

**559 Crustal Architecture and landscape Evolution**

Bruce R. Goleby (Australia) and 14 members (USA, Canada, China, Finland, Netherlands, New Zealand, Russia)

2008-2012

<http://www.earthscrust.org>

**565 Geodetic Monitoring of the Global Water Cycle**

Hans-Peter Plag (USA), Richard S. Gross (USA), Markus Rothacher (Germany), Norman L. Miller (USA), Susanna Zerbini (Italy), Chris Rizos (Australia)

2008-2012

<http://www.iag-ggos.org/igcp565>

**567 Earthquake Archaeology – Archaeoseismology along the Alpine-Himalayan seismic zone**

Manuel Sintubin (Belgium), Iain Stewart (United Kingdom), Tina Niemi (USA), Erhan Altunel (Turkey)

2008-2012

<http://ees.kuleuven.be/igcp/567/>

**571 Radon, health and natural hazards**

Gavin K. Gillmore (UK), Robin G.M. Crockett (UK), Frederic Perrier (France), Tadeusz Przylibski (Poland), Vivek Walia (Taiwan of China), Bikram Jit Singh Bajwa (India)

2009-2013

<http://www2.northampton.ac.uk/appliedsciences/appliedscience/research/igcp>

**572 Permian-Triassic ecosystems**

Zhong Qiang Chen (Australia), Richard J. Twitchett (United Kingdom), Jinnan Tong (China), Margret L. Fraiser (USA), Sylvie Crasquin (France), Steve Kershaw (United Kingdom), Thomas J. Algeo (USA), Kliti Grice (Australia)

2008-2012

<http://www.igcp572.org/>

**574 Bending and Bent Orogens, and Continental Ribbons**

Stephen T. Johnston, (Canada), Gabriel Gutierrez-Alonso (Spain), Arlo Weil (USA)

2009-2013

<http://www.brynmawr.edu/geology/faculty/aweil/IGCP-574/>

**580 Application of magnetic susceptibility on Paleozoic sedimentary rocks**

Anne-Christine da Silva (Belgium), Michael T. Whalen (USA), Jindrich Hladil (Czech Republic), Daizhao Chen (China), Simo Spassov (Belgium), Frederic Boulvain (Belgium), Prof. Devleeschouwer Xavier (Belgium)  
2009-2013

**581 Evolution of Asian River Systems**

Hongbo Zheng (China), Ryuji Tada (Japan), Peter Clift (UK), Masood Ahmad (India), Zheng-Xiang Li (Australia), Kuo-Yen Wei (Taiwan of China)  
2009-2013

<http://isg.nju.edu.cn/Exchange/Index.aspx>

**582 Tropical Rivers: Hydro-Physical Processes, Impacts, Hazards and Management**

Edgardo M. Latrubesse (Argentina), Rajiv Sinha (India), Jose C. Stevaux (Brazil)  
2009-2013

Website in preparation

Funded projects		30
O.E.T.	<u>7</u>	
Total	37	

## 7. Proposals received in 2009

No.	status	date	title/proposer	Theme Group
575	Resub.	08/10/09	<b>Pensylvanian terrestrial environments of eastern Variscan Euramerica</b> C. Cleal (UK), S. Oplisil (Czech Republic), I. v. Waveren (Netherlands), M. Popa (Rumania), B. Thomas (UK) <b>2009-2013</b>	Global Change and Life
585	New	14/10/09	<b>Earth's continental MARGins: aSsessing the geoHAzard from submarine Landslides</b> Roger Urgeles (Spain), David Mosher (Canada), Jason Chaytor (USA), Michael Strasser (Germany) <b>2010-2014</b>	Geohazards
586-Y	New	14/10/09	<b>Geodynamic processes in the Andes 32°-34°S</b> Laura Giambiagi (Argentina), Luisa Pinto (Chile), Maisa Tunik (Argentina), Sergio Sepúlveda (Chile), Stella Maris Moreiras (Argentina), Marcelo Farías (Chile), Greg Hoke (USA) <b>2010-2012 (3 years) Young Scientists Project</b>	Geohazards + Deep Earth
587	New	10/10/09	<b>Identity, Facies and Time – the Ediacaran (Vendian) Puzzle</b> Mikhail FEDONKIN (Russia), Patricia Vickers-Rich (corresponding Secretary, Australia), Jim Gehling (Australia), Guy Narbonne (Canada) 2010-2014	Global Change
588	New	Oct 09	<b>Preparing for coastal change</b> Adam D. Switzer (Singapore), Craig Sloss (Australia), Benjamin Horton (USA), Yongqiang Zong (China) <b>2010-2014</b>	Geohazards + Global Change

## 8. Proposals to improve IGCP project reporting

Edward Derbyshire, UK IGCP National Committee Chairperson has a proposal to

improve IGCP reporting and make some changes to the report guidelines. Some of these have a bearing on some core UNESCO values and, at the same time, would help National Committees to gather more complete and accurate information on the role and involvement of their geoscientists in IGCP. The following proposed modifications to the annual reporting form will be discussed at the IGCP Board meeting:

- Detailed information on name, email contact address and country of origin of all participants in project-organized meetings throughout the year.
- Dates and locations of all project-organized meetings which are not always stated in annual reports.
- All training workshops carried out in less developed countries.
- Enhance co-leader responsibility in annual reports.
- Ask for an additional final report which summarizes all 5 years of project activities.

## **9. Information regarding cooperative efforts of IUGS and UNESCO in the Earth sciences**

### **Global Network of National Geoparks (GGN) under UNESCO**

IUGS is since a number of years present in the European Geoparks Network Advisory and Coordination Committee and since April 2009 namely through Prof. Jacques CHARVET. In September 2009 Prof. Colin SIMPSON was present for the first time on behalf of IUGS in the Global Geoparks Network Bureau meeting which took place in Taishan, PR China, where also IUGS President Prof. Alberto RICCARDI was present as special guest. In the light of the IUGS contribution to network activities, the GGN Bureau has suggested an involvement of IUGS in the new application process to help to assess new aspiring geoparks. The geoscientific expertise of IUGS will help to underpin the decision to accept new geopark members. Therefore IUGS is asked to comment on the geological content of a new applicant and identify the international value of geological structures and its international significance. These comments will form an important part of the evaluation process.

### **EGN affiliation**

In 2009 the IUGS Council officially ratified the European Geoparks Network application to become Affiliated Organization to the IUGS. This affiliation was welcomed with great enthusiasm by the EGN Committees and all members.

### **GARS**

The Geological Applications of Remote Sensing Programme representatives actively participated in the GEOSS process, especially in the field of earth observations related to geohazards. GEOSS and GARS are organizing a workshop on the development of a community of practice in the field of geohazards and to rise extra budgetary funding. The workshop takes place from 18 to 21 January 2010 in UNESCO headquarters. A full report will be prepared by the GARS Chairperson soon after the meeting. In November GARS facilitated the acceptance by GEOSS of IUGS as a new participating

organization.

### **YES**

UNESCO cooperates with the Young Earth Scientists (YES) to organize YES congresses. The first one took place in October 2009 in China and the next congress will be held in conjunction with the IGC in Australia in 2012.

### **IYPE**

UNESCO cooperates with IYPE in organizing scientific and outreach activities on the geosciences, including a closing event held in Lisbon in December 2009. Follow-up activities to the “Year” and its legacy are being co-organized with other bodies and should lead to further science and outreach efforts. IYPE made an important financial contribution to IGCP.

### **Geoscience workforce**

UNESCO cooperates with IUGS in the preparation of a “report on the Geoscience workforce”. In this context consultations were held with AGI in December 2009 and a special study on the African region is being initiated.

### **Earth Science Education for Africa**

UNESCO and IUGS cooperate in the new initiative on “Earth Science Education for Africa”: four consultation workshops were organized for the Arabic (Egypt), Portuguese (Angola), French (Senegal) and English (South Africa) geoscience communities. A special workshop for landlocked central African countries will be held in February 2010 in Kinshasa. A consolidated report of all the workshops will be prepared for spring 2010.

### **One Geology**

UNESCO participates in the “One Geology” and CGMW activities to prepare an accessible electronic world geological map and a database to assist Member States to make more efficient use of geosciences information for the planning of sustainable development.

Further details and on other cooperative efforts will be provided during the IUGS Executive Council meeting in Paris, in February 2010.