

IUSG Commission on Geoscience Education, Training and Technology Transfer

2008 Report

Commissioners

Gary Lewis (Chair), Geological Society of America - USA
Chris King, Keele University – United Kingdom
Chang-Jong Kim, Seoul National University – Korea
Alan Morgan, Waterloo University – Canada
Ian Clark, University of South Australia, President of IGEO – Australia
Ashvin Wickramasooriya - Sri Lanka
R. Shankar, Mangalore University - INDIA
Chun-Yen Chang, National Taiwan Normal University – Taiwan
Greg McNamara, Geological Society of Australia – Australia
Migel Cano – IESO Coordinator - Philippines

The Commission has had a number of phone conferences as well as a face-to-face meeting at IGC in Norway and action on the following issues:

- a. New Commissioners
- b. International Year of Planet Earth activities
- c. Development of an Earth science literacy document
- d. Website development
- e. Budget

a. New Commissioners

A call was made out for new commissioners and we are very pleased to have expanded the Commission's representation in the south-east and Asian regions. We now have commissioners from Korea, Taiwan, India, Sri Lanka, Canada, Australia, United Kingdom and the United States. This expansion will assist the commission in its goals to influence the teaching of Earth science around the globe.

b. International Year of Planet Earth

The Commission has supported two major efforts as part of IYPE.

International Earth Science Olympiad

The Commission continued to support the development of the International Earth Science Olympiad. Another success IESO took place in the Philippines. The next IESO is in Taiwan 2009 and discussions have started for the 4th IESO to take place in South Africa in association with the GeoSciEd conference in 2010.

Earth Learning Idea

The Commission sponsored the Earth Science Education Unit (ESEU) of the United Kingdom to assist in the continuation of the Earth Learning Idea website. This innovative approach of posting classroom activities for teachers around the globe.

The Commission will continue to support this program each year during IYPE.

c. Development of an Earth science literacy document

Following the development of an Earth science literacy document in the USA, the Commission has started working on a document which can be used to assist countries in adopting their own literacy document, or to use the document to assist in the development of a teaching syllabus.

The current document uses eight major concepts (big ideas) which all people should understand. The Commission is working on the next level of concepts that fall under those eight big ideas.

The big ideas are :

- 1: Earth is 4.6 billion years old and the rock record contains its history.
- 2: Earth is a complex system of interactions between rock, water, air and life.
- 3: Earth is a continuously changing planet.
- 4: Earth is the water planet.
- 5: Life evolves on a dynamic Earth and continuously modifies Earth.
- 6: Humans Depend on Earth for Resources.
- 7: Earth science reduces the impacts of natural hazards: Humans have become a significant agent of change on Earth.

Once written, the Commission will distribute the document for further comments.

d. Website Development

The Commission continued to be pleased with the development and management of the COGE website by Greg McNamara (Australia). It put the call out for Commissioners to continue to feed Mr McNamara with links and information to incorporate into the site.

The call from IUGS to include links to the website and to provide them with information for their own circulars was notes and COGE will aim to provide IUGS materials throughout the next four years.

e. Budget

The Commission will seek \$US5,000 from IUGS to continue operate its programs during the 2009. These funds will be used to:

\$2,000 Maintenance and continued development of website
\$1,000 Support of the Earth Learning Idea program.
\$1,000 Support of the Earth science literacy initiative (including printing)
\$1,000 Conference phone calls, postage and materials

Gary Lewis
COGE Chair
5 November 2008

IUGS
Commission on Earth Science Education
Commission Action Plan 2005-2009

Progress Report November 2008

This action plan will be undertaken in association with member and other agencies including, but not limited to, those listed in the Terms of Reference for this Commission.

Over the life of this Commission, it will:

1. Develop a list of expert international contacts to provide input into Commission activities **(In production)**
2. Develop and operate a Commission web site and list-server or email list for the dissemination of materials to the wider community **(Completed development and ongoing)**
3. Assist the International Geoscience Education Organization (IGEO) in undertaking a world wide survey of the earth science perspective of school education and provide an avenue of dissemination of survey outcomes. From this survey, target developing and transitional countries in which the work of this Commission can have the greatest impact **(Survey complete.)**
4. Identify those countries that have set the benchmark for the inclusion of earth science in their curriculum and promote these benchmark examples to all countries as the appropriate acceptable level **(Data from survey will be used to undertake this task)**
5. Develop and release a series of benchmark strategy documents that can be used for countries to establish earth science education and outreach programs. **(New document under development)**
6. Develop and maintain contact with other agencies and local NGS's involved in earth science education and outreach activities with the aim of greater dissemination of information to a wider audience **(Continuing)**
7. Assist IGEO in its efforts to develop and run GeoSciEd conferences **(forthcoming conference, South Africa 2010)**
8. Assist IGEO in its technical program submissions for the IGC meeting in Oslo in 2008 **(Complete)**
9. Seek IUGS funding to match IGEO funds to support key educators from targeted developing countries to attend GeoSciEd conferences and receive training in relevant strategies to introduce and strengthen earth science education and outreach in their countries **(Continuing)**
10. Examine funding possibilities and suitable models for operating training sessions on effective strategies for introducing earth science education and outreach activities in targeted developing countries **(Ongoing)**
11. In the targeted countries, assist in the distribution of materials associated with teacher training sessions and make these materials available to other

agencies and organisations for distribution as part of a wider teacher-training program. **(Supporting ESEU to operate a program as part of IYPE)**

12. Explore the translation of teaching materials into the languages of targeted countries, as appropriate. **(Some materials in the US now translated into Spanish. Looking at this model for further work)**
13. Explore the training of local educators to develop materials that are relevant and sensitive to the teaching, cultural, language and geological conditions of that country. **(Supporting ESEU to operate a program as part of IYPE)**
14. Encourage counties to participate in the Earth Science Olympiad. **(Ongoing)**
15. Provide advice and assistance for the International Year of Planet Earth when the program is formally confirmed. **(Ongoing – two programs being supported by COGE)**

**IUGS
Commission on Earth Science Education
Commission Work Plan and Budget 2008**

Item	Date Complete	Budget
Develop Website and maintenance	Ongoing	\$2000
Support EarthLearning Idea	Ongoing	\$1000
Support Literacy initiative	Nov 2009	\$1000
Support for communication costs	Ongoing	\$1,000
Totals		\$5,000