



## SUMMARY OF IGCP 2016

### IN EARTH RESOURCES THEME

FEBRUARY 2017

**The main topics within the ongoing Earth Resources projects (4, of which 1 is closing) are very diverse and cover research fields related to clean and 'renewable' geothermal energy, the sustainable mining of metals with economic interest and the international recognition of our natural stone resources.**

*(636) Characterization and sustainable exploitation of geothermal resources:*

The aim of this project is to develop new and more effective methods to exploit geothermal resources. Not only is it a scientific very interesting project, it also has societal and international importance. This project will develop and strengthen a network between young scientists and students from both North and South America and Europe in the field of geothermal resources. Close collaboration between the participating institutes (from both industrialized and more developing countries) has already resulted in knowledge transfer and capacity building of a next generation geoscientists.

*(637) Heritage Stone Designation:*

The aim of this project is to raise international awareness of our natural stone and cultural heritage, protect them and at the same time enhance international cooperation for the research and documentation on the global natural stone sites. This project is a wonderful multi-disciplinary activity that achieves synergy, impact and impressive public attention.

*(638) Paleoproterozoic Birimian geology for sustainable development:*

The aim of this project is to improve the knowledge of the relationship of gold-related structures and the geodynamic evolution of Paleoproterozoic rocks in West Africa for a more efficient and thus sustainable exploration. Besides, geology is the 'underdog' among all scientific disciplines in the educational systems of West Africa, due to a lack of knowledge on resources and general geological history of the basement rocks. Quality improvement of the high school geology program is envisioned through this IGCP project.

#### **SOME OF THE PROJECT'S ACHIEVEMENTS AND HIGHLIGHTS**

*(600) Metallogenesis of the Tethys:*

This project has come to an end after 6 years of research, of which the last two were without budget from IGCP. Despite this significant fact, the project activities successfully continued generating new significant data on tectonic evolution, collisional processes and related ore systems. Together they published another 8 journal articles last year.

*(636) Characterization and sustainable exploitation of geothermal resources:*

Many young scientists and students have been recruited to work on project-related topics: 2 Postdocs, 6 PhDs, 5 graduate and 13 undergraduate students. The gender profile ratio and the geographic distribution of participants is also very good.

*(637) Heritage Stone Designation:*

This project is a wonderful multi-disciplinary activity that achieves synergy, impact and impressive public attention. Last year the project leaders have worked hard to publish a stone heritage book on east and south east Asia and a special heritage stone issue of Geoscience Canada. Impressive to get 75 scientists from 23 countries engaged and actively involved in one project and at the same time keep delivering high quality scientific publications.

#### **MOST SUCCESSFUL WORKSHOPS/MEETINGS/OUTREACH/TRAINING**

*(636) Characterization and sustainable exploitation of geothermal resources:*

The first project meeting was held in Colombia last fall and more than 250 participants from all participating countries (5) were present.

*(638) Paleoproterozoic Birimian geology for sustainable development:*

In December 2016 the first successful symposium was organized in Dakar, Senegal with 150 participants from 15 countries (2 days conference and 4 days fieldtrip). Great start of the project!

#### **PARTICIPATING COUNTRIES FROM THE DEVELOPED VS DEVELOPING COUNTRIES**

Project 600: Australia, Canada, Georgia, Iran, Japan, Pakistan, China, USA (88% from developing countries)

Project 636: Colombia, Chile, Canada, France, Belgium (69% from developing countries)

Project 637: 52 countries, 29 active in 2016 (14% from developing countries)

Project 638: 13 African countries, 2 from Europe, 2 from Asia, USA (72% from developing countries)

Secrétariat du PICG  
UNESCO

Division des sciences écologiques  
et sciences de la Terre  
7 place de Fontenoy  
75352 Paris 07 SP  
France  
Tel: +33 (0)1 45 68 14 33

Email: o.adiyaman@unesco.org