



SUMMARY OF IGCP 2016

IN HYDROGEOLOGY THEME

F E B R U A R Y 2 0 1 7

HIGHLIGHTS

Hydrogeology: Geoscience of the Water Cycle

Life on Earth depends on water and its sustainable use is crucial for continued human existence. Earth's water resources include surface/ground water, ocean water, and ice. The study of Earth's water involves understanding and managing both surface and ground water systems, including sources, contamination, vulnerability and history of water systems.

Hydrogeology Experts and Ongoing Projects

10 experts serve in the Scientific Board of Hydrogeology Theme during 2017 - 2020 from the continents of America, Africa, Asia, and Europe. The list of their nationality is China, DR Congo, Ecuador, Egypt, Hungary, Italy, Russia, Spain, USA, and Vietnam including 6 women and 5 new experts (underlined).

The ongoing projects mainly consider water resources sustainability, assessment, protection, and social services. Many activities such as workshops, meetings, and training courses are performed to expand the networks between countries and continents, to reach issues of global geoscientific interests, and to ensure the results that meet society challenges.

MAIN TOPICS

Hydrogeology Theme Covered 2 Projects

1. Paleoclimate information obtained from past-recharged groundwater (618)

The primary objectives are to understand how climate interacts with the major aquifers. The project consists of members from 34 countries with a strong presence in Africa (11 countries). The most active countries are Estonia (3), China (4), Germany (2), USA (2), Argentina (1), Australia (4), Canada (1), UK (1), Lebanon (1), Spain (2), and Tunisia (2). Parenthesis indicates number of researchers.

2. Water resources in wet topics and west-central Africa (3WCA) (643)

The 3WCA project associated with different laboratories from west-central Africa and France, studied hydrological/hydrogeological variability in relation with climate and land use changes. The primary objectives are to build strong background in international collaboration, in particular (1) support for exchange students, (2) support for the mobility of teachers, (3) financing of laboratory materials, and (4) support for setting new research project. 3 countries in Africa (Benin, Ivory Coast, Niger) and France performed the project.

SCIENTIFIC ACHIEVEMENTS

Scientific achievements of the projects resulted in publication of international journals, such as Episodes, Nature Geoscience, Applied Geochemistry, J. Hydrology, J. Applied Science and Technology and J. Applied Geophysics. The thematic workshops and meetings were also organized. The project 618 held public sessions in AGU (American Geophysical Union) in San Francisco, USA, bringing together about 80 experts including young scientists/students and female scientists. The project 643 had workshops in Benin to characterize aquifer systems by new geophysical tools including gravimetric and pumping test methods and TDEM, conductivity and topographic methods. A total of 55 young scientists and female scientists participated, in particular from 18 developing countries.

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