



Earth Resources: Sustaining our Society

- Human existence and progress is based on the supply of energy, minerals and water
- Supply of *conventional* resources is under pressure. There is an urgent need to develop and utilize our resources in better and cleaner ways (explore, extract, process, recycle, etc.)
- Knowledge on natural resources and their management is the frontline of the struggle for a more sustainable and equitable development. The environmentally responsible exploitation of these resources is a challenge for geoscience research.
- Supply of *renewable* resources is unlimited – great potential to unlock!



Understanding the complexity of the Earth is essential for mining to become more sustainable

Can we shift to substitute resources that are renewable?



Water plays important role in all earth resources projects

Focus on Sustainable Exploitation

Sustainable use of natural resources has significant societal and environmental consequences. Better targeted prospecting and exploitation of minerals is critical, as well as the responsible management of water resources. Reflected in ***IGCP 638 Geology and Societal Impact of the Gold Mineralizations in the Birimian Terrains (West African Craton)***

Countries active this year: Algeria, Belgium, Burkina Faso, Côte d'Ivoire, Cameroon, France, Gabon, Ghana, Guinea, Morocco, Mali, Mauritania, Niger, Senegal (and established collaboration with Uruguay this year)



The project contributes to several UN Sustainable Development Goals

SDG Goal 6 | Clean Water → evaluate the effects of traditional exploitation of gold on water quality & availability of the water resources to manage public health risks

SDG Goal 8 | Decent work and economic growth

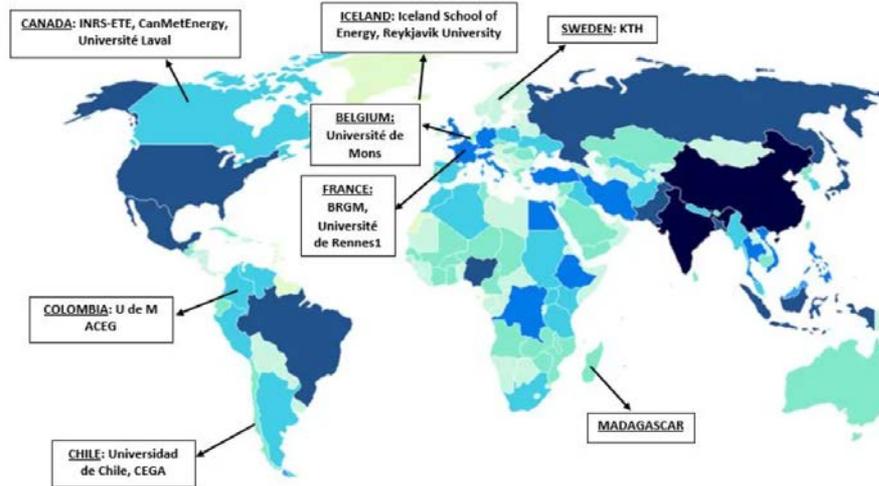
SDG Goal 12 | Responsible consumption and production → find new gold discoveries in W-Africa and exploit them sustainably, creating jobs in the mining sector, contributing to the economic and social development of the states.



Fieldtrip to South Moroccan Atlas Belt, 2017

Focus on Sustainable Energy Resources

The growing interest in renewable energies is an attractive opportunity for the next generation geoscientists to help fulfill clean energy needs globally. Reflected in **IGCP 636** *Characterization and Sustainable Exploitation of Geothermal Resources*



Colombia
Chile
Canada
France
Belgium
Iceland
Sweden
Madagascar
Italy



Nevado del Ruiz, Colombia

SDG Goal 13 | Climate action → develop new (more effective) methods to exploit geothermal resources. Unlike fossil fuels, geothermal energy does not involve any form of combustion, thus emits significant less greenhouse gases.

SDG Goal 4 | Quality education → supports young scientists/students from developing countries in their studies related to geothermal resources. 75% of the scientists involved are under 35 years old.