

IUGS ZUMAIA DECLARATION



Earth is 4.57 billion years old. Earth conditions and processes produced and regulated the life of its biosphere throughout its history. Our understanding of that history arises from the Geological Sciences, which over the last 200 years have reconstructed the long history of the Earth system and developed the knowledge of how it operates.

The concept of Deep Time revealed by Earth's geological record humbles us with the realization that we have just arrived. Yet, the study of current Earth processes shows that our activity is rapidly and deeply transforming the Earth's surface environments and processes and overwhelming the long evolved biosphere.

Other organisms have generated major changes in the Earth system. However, unique among Earth's lifeforms, we understand the magnitude and velocity of our impact. This knowledge and understanding gives us the responsibility to act and address the coming challenges.

In this context, the International Union of Geological Sciences, during the celebration of its 60th anniversary with more than 200 experts from 40 countries representing the main organizations of the Earth sciences, proclaims the following:

Geology and society

The Earth Sciences, through their different disciplines, have provided fundamental knowledge and understanding for the development of our society over time.

The global challenges now being faced, decline of the biosphere, global warming, availability and management of water, demand for mineral resources and raw materials, the transition from fossil to renewable energy resources, the inhabitability of land areas, and the sustainability of regional populations can best be addressed with policies based on scientific knowledge.

Earth Sciences offer an essential knowledge to understand the real possibilities that our planet offers.

Collaborative science

Earth is a unique system. Basic research of the geologic record of Earth history and study of the dynamic, ongoing processes are fundamental to understanding the Earth system.

Promoting applied research in Earth Sciences makes a real contribution to Sustainable Development Goals adopted by the United Nations.

Such research is most valuable when it crosses all boundaries and is transdisciplinary, working seamlessly with life sciences and humanities.

International collaboration between countries and scientific organizations strengthens the science and best addresses global challenges. Scientific knowledge must be shared and supportive.

Geological Heritage

Geology is a wonderful science. Knowledge of Earth and its history is based on places and landscapes that have been described and studied since the birth of the geological sciences.

Some of these places have a special value. They are inspiring and extraordinary places that have contributed significantly to the development of Geological Sciences. They represent the memory of the Earth and are part of the natural heritage that we must in equal parts value, manage, use and conserve with determination.

Therefore, the International Union of Geological Sciences - IUGS declares the following:

Recognizing and preserving Geological Heritage is critical.

The IUGS adopts the mission to acknowledge Geological Heritage of highest scientific importance. Collaboration between all international initiatives involved with geoheritage and geodiversity can lead to their further appreciation, to their sustainable use as educational resources, and, most importantly, to their preservation for the good of society, for future generations, and for our Planet's well-being.

The presentation of the "First 100 IUGS Geological Heritage Sites" has been achieved within the context of the International Geoscience Program of UNESCO. It represents an important contribution to this broader recognition initiative that the IUGS, in collaboration with other organizations, shares with the global community of geoscientists and with all people worldwide.



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