GEODIVERSITY, GEO-RESOURCES AND CLIMATE CHANGE: ADAPTIVE ASSESSMENT AND PROACTIVE MANAGEMENT

The onset and development of the Geodiversity concept over the last 20 years acted as an accelerator for research innovation within Earth Sciences. The research team of Physical Geography and Geomorphology is particularly engaged in this new research trend; its long history of theoretical studies and applied research on **Climatology**, **Geothematic mapping**, **Geographic Information Systems, Natural hazards, Geo-environmental** resources produced a remarkable dataset and a valuable heritage of knowledge useful for further science developments in several directions:

- for analysing the role of Geomorphology in theoretical definition of **Geodiversity**, thus establishing standards and rules for assessing landforms from the geodiversity point of view in different spatial and temporal scales. As a consequence, dedicated methodologies and innovative tools are under development and test, for elaborating data and for mapping and evaluating geodiversity.
- for recognizing **Geoheritage** as a valuable part of the geomorphological landscape: its meaning encompasses an area, as perceived by people, whose character is the result of the action and interaction of natural and/or human factors. assessing sites or areas of geologic / geomorphological features with significant scientific, educational, cultural, or aesthetic values.
- For making Geosites at the service of both the public and private interests: thus new conceptual and operational discipline has to be achieved in their management, also by means of the development of innovative techniques at the local and regional scale. Management of new Material and Cultural **Geo-resources** will be favoured by interdisciplinary scientific studies, by the enhancement of public understanding of science, and by contributions to recreational activities and proper plans for economic support to local communities.

Specialized research topic within our team are also addressed to critical aspects of advancing knowledge about the geomorphological history of the Alps, climate and environmental changes, natural hazards, soil processes. Scientific concepts and techniques are coupled with geodiffusion interests and products: a multimedia approach, developed with digital techniques within the GeoSITLab (GIS and Geomatic Laboratory).