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The scientific communication for prevention: an ethic mission for the geologists

Francesca Romana Lugeri, Piero Farabollini, and Barbara Aldighieri

Istituto Superiore Protezione e Ricerca Ambientale –Servizio Geologico d'Italia. Via V. Brancati 48, 00144 Roma Italy (francesca.lugeri@isprambiente.it)

Referring to the so called "catastrophic" events often occurring in Italy, emerges clearly the ethical vocation linked to the profession of geologist: today more than ever, is urgent an efficient and timely activation in geo-environmental protection as well as in the field of scientific communication.
This era (defined "postmodern" by a socio–economically point of view) is also identified and classified "Anthropocene", term coined by Paul Jozef Crutzen, Nobel Prize in 1995, to define the first geological Era in which human activities have been able to influence the planet Earth and alter its balances.
The researchers can advise on some objectives, more urgent or strategic, mainly related to the prevention of risks, and cooperate in finding proper methodological paths to prevent or manage the emergencies.
Knowledge is the key tool: the diffusion of scientific heritage, may represent one of the new goals for the Territorial Sciences.
At the same time, emerges the need to create a new kind of communication that can activate a wider and conscious target, providing society with correct and clear information on the geo-environmental scenarios of our country.
There is an obvious need for a new approach to the problems related to the complex context that now shows us a planet going beyond the critical point. A holistic approach is imperative to study the planet, a method that considers environmental and social ecosystem on the whole, providing all policy makers with a realistic view of the situation and the possible developments.
The Landscape is the object of human perceptions and, at the same time, can be considered the result of the interaction of many natural and cultural components: therefore it could become a "medium" to communicate the Earth Sciences to the whole society. Moreover, the landscape is an expression of geology: even at different scales, the endogenous and exogenous processes, and the rocks, as elements of the landscape, condition the evolution of environment and form the base of spatial-temporal development of a region.
By integrating different information about the geo-morphological arrangement and the land use of a region, it is possible to reach a complete knowledge of the territory: a multi-scale Landscape approach is even more adopted in the modern geological applied research.
The scientific communication is a complex process: a very sensitive point is how to organize the information in a strategic way – thinking about targets and messages in order to better communicate the contents to the largest audience
The modern technology offers new powerful tools: the GIS are able to synthesize, manage and represent a large amount of data; thanks to GIS it's almost easy to reach an evaluation of the state of the studied landscapes, referring to the dualism risk/resource which characterizes our country.
The use and application of geological maps and other cartographic products GIS based, allows to compare the results of the multi-thematic studies and suggests new strategies, aiming to a common solution for the territorial problems.
An ethic way to reach a balanced territorial management and a sustainable development, follows the path of shared knowledge, aiming to involve society in virtuous practices for the territorial protection and enhancement, in a sort of participatory democracy.