

Finally, geology is taken into account

Julio Godoy - October 14, 2008

Until very recently, the conservation of geodiversity was not included among the pressing priorities of environmental policy, not even among grass-roots activists. An incomprehensible neglect, given that geology studies human kind's genealogy and climate evolution recorded in the rocks.

But at this IUCN Congress, this oblivion was fixed, through a resolution -the first ever on the issue- that recalls that geodiversity is a crucial factor conditioning biology, culture and landscape in their multiple forms, and that geological aspects of high value must be preserved for future generations.

The resolution urges IUCN to promote studies and debates aimed at protecting geodiversity and geological heritage aimed at achieving "the widest possible involvement of governments, independent sector groups and international organisations around the world."

To this end, the IUCN governing bodies, especially the director general, should convene "... meetings on geodiversity and geological heritage ... and ... facilitate the organisation of these meetings and to provide their continuity," the document says.

The resolution, especially supported by the Geological Society of Spain, puts emphasis in the fact that the escalating environmental impact of economic activities upon the world's geodiversity and geological heritage is unsustainable and must be reverted.

The IUCN decision is in line with those of several international institutions and treaties, such as UNESCO and the World Heritage Convention, by reminding that geological and physiographical formations are of outstanding value both from a scientific as well as from an environmental point of view.

The resolution shares also the objectives of the current International Year of Planet Earth, adopted by the U.N. General Assembly, and the pioneering steps in the matter set by the European Council in 2004.

Enrique Díaz-Martínez, head of the delegation of the Spanish Geological Society to the IUCN congress, greeted the resolution. "It is about time that the IUCN begins to deal with this neglected part of natural heritage," he told IPS.

"For one thing, we all know how evolution of life is written in the rocks. We should be worrying about losing this world's archive with our birth certificate and the book with our genealogy," he said.

Díaz-Martínez also recalled that past climate changes are documented in rocks around the world. "We cannot understand the current changes in climate if we cannot read these records from the library of the Earth," he pointed out. "We should not allow that these records be destroyed."

It is indeed often forgotten that all we know about the evolution of life on earth, from species to habitats, resources and climate, is based on this geological record, which must be preserved. For, although the scientific community has been aware of these issues, environmentalists had failed to follow up on them.

"We have been making efforts towards education and public outreach," Díaz-Martínez told IPS. "But we need the support from conservation and environmental institutions, both in governments and at the grass-roots level."

Díaz-Martínez is a geologist at the Geological Survey of Spain, and was recently involved in designing computer systems for geological research on Mars at the Centre of Astrobiology of Madrid.

"For a few decades we have had the means to quantify biological diversity, and now we also can quantify geodiversity, that is, the wealth of all natural elements and aspects derived from geological processes," Díaz-Martínez explained.

These processes do not only originate mineral and rocks, but also meteorites, fossils, and multiple landforms and surface deposits, as well as water and fossil energies.

"Both the geological and the biological dimensions contribute to natural diversity, and both must be considered in the identification, management, and conservation of protected areas," he said.

In the process of preserving nature, he added, "we must protect the most vulnerable and representative, keeping in mind that while most species, habitats, and ecosystems may be resilient and undergo recovery, most geological heritage is non-renewable and irreplaceable."