

# Environmental Changes, Natural Hazards and their impacts

*Terrae* is devoted to original and update research on geology, geography and environment. In view of the recent catastrophes due to natural hazards, this issue evaluates environmental changes, natural hazards and some of their impacts.

Human communities have always experienced natural hazards, but the devastating impacts of recent calamities, such as the earthquakes in Haiti, Chile and China, the major floods in Pakistan, China, Brazil and Vietnam, as well as the fires in Portugal, Russia, Brazil and the USA, show us they are beyond human control and stress the vulnerability of human life to them. They also reveal that natural hazards strike wealth and poor societies, but the risk of death and the magnitude of their impacts are connected to the lack of appropriate emergency management and the (in)capacity to mitigate the adverse effects. As a consequence, they impose substantial human and economic costs, compromise the development and increase the gap between social groupings.

This issue has four Thematic Contributions, one Scientific Communication and one Report. The first paper evaluated the lead, chromium, copper, zinc and arsenic contents of several food species that comprise part of the population diet in two locations of Ribeira Valley, Brazil, one of them located next to an old smelting plant.

Hydrometeorological disasters of Brazil are analyzed in the second paper in the light of the

Sociology of Disasters, considering data of the Civil Defense archives, spanning the period of 2003-2009.

The assessment and management of landslides was focused in the third paper, which presents a methodological approach to elaborate the Municipal Plan for the Reduction of Risks to these events.

Given the central role that education plays in science, the fourth article discusses the importance of the discipline Earth System Science for Geology and Geography courses from a cumulative experience of 12 years in a Brazilian university.

The Scientific Communication shows that changes of some environmental parameters might affect the taxa of microfossils of the Late Quaternary in sediments of Campos and Santos basins of the Brazilian Continental Margin.

A timely discussion about the earthquake registered in Chile in February 2010 is also presented as a report and evaluates the physical characteristics of the area and the causes for the massive destruction and life losses.

We thank the authors for their contribution, the referees for their effort and do hope that these papers can provide a comprehensive approach on the subject.

We would like to inform our readers that one of the past issues of *Terrae* (vol. 3) in fact comprises volumes 3, 4 and 5.

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