France

## **GLOBAL APPROACH TO GEOETHICS: A FIRST ATTEMPT**

Within the framework of a global view of this new discipline, some basis should be provided for ranking the questions raised by geosciences for an ethical approach in a supposedly "modern" world (far removed from the Neolithic age of gathering and plundering). A first attempt is proposed, combining geo-scientific issues (such as geographic disparity of resources, mineral depletion, natural and industrial risks, links with territories, nature biodiversity and landscapes...) with major ethical concerns (intra- and inter-generation equity, rights and justice, governance, religious prominence in the secular society...), and taking into consideration the availability of practical screening tools (local and global knowledge, modelling skills, scientific expertise and consensus, citizen participation, foresight...) for reaching this objective.

Using this approach, we arrive at an initial ranking of geoethical issues and messages:

- The geographic disparity of mineral resources requires a global approach (multilateral governance) using appropriate management tools: public R&D, the sharing of public information...
- Mineral depletion, especially of fossil fuels, raises questions of both intra-generation equity regarding access, and inter-generation equity (what is left to future generations?). National or even regional (e.g. European) solutions alone are not sufficient, tending to become sources or wars. An international panel is needed to increase public awareness and develop and promote international regulation tools (e.g., IPCC for UNFCCC).
- Sustainable development implies exploiting renewable resources as a priority when available. The geography of world development should depend on resource availability and not only on local differences in social or environmental conditions. Plundering the resources of the poorest nations(cf. Congo) should be banned.
- Knowledge and prevention of natural and technological risks is necessary. Infrastructure development must be controlled or appropriate risk-resistant measures taken in areas of high risk. A precautionary approach (with an "enlightened catastrophism" attitude) must be developed.
- Considering real environmental, energy and transportation costs is a priority for sustainable development of natural resources at the planetary scale (proper taxation of fuels for international transport...).
- Nature, landscape and biodiversity must not only to be preserved in mining areas but also valued for their own heritage value (species in extreme biota, minerals, fossils...).
- Public awareness, responsiveness, initiative and participation must be increased by education and information (using modern tools: TIC, GIS, virtual imagery...), citizen organisations and associations must be facilitated, public debates and discussions held, foresight and prospective studies developed, governance improved ...

The main challenge for our generation is to develop tools and organisations that will enable mankind to cease its current predatory approach to the Earth's natural resources, and create a climate of stewardship. This requires that ethical work use both fundamental (providing resources for thoughts and beliefs concerning what represents true happiness, real wealth, actual value--to be afraid not of but for...) and applied approaches. All sectors must be mobilised, both secular-to develop information, education, public debate, combining both responsibility and "interrogativity", and religious –not for evasive, apocalyptic or sectarian approaches but for their message of love of the world. The need for a paradigm shift (of opinions, habits, perception, etc.) is such that, in addition to science and technology, spiritual work – religious or artistic – is necessary in order to shake up the social imaginary.

While the anthropocentrism of today's western culture is rooted in the Age of Enlightenment and the Christian Reformation, we might also find in Franciscan frugality and Calvinist sobriety a regeneration of modernity based on a renewed solidarity, a fraternal sharing of the earth's goods and burdens, a redistribution of knowledge, duty and pleasure. We should seek an affirmation of transcendence that generates thanksgiving for natural and human resources, respect for the plurality of the world's inhabitants, and an *ethical* anthropocentrism capable of taking steps to look after and saving our fragile world.

