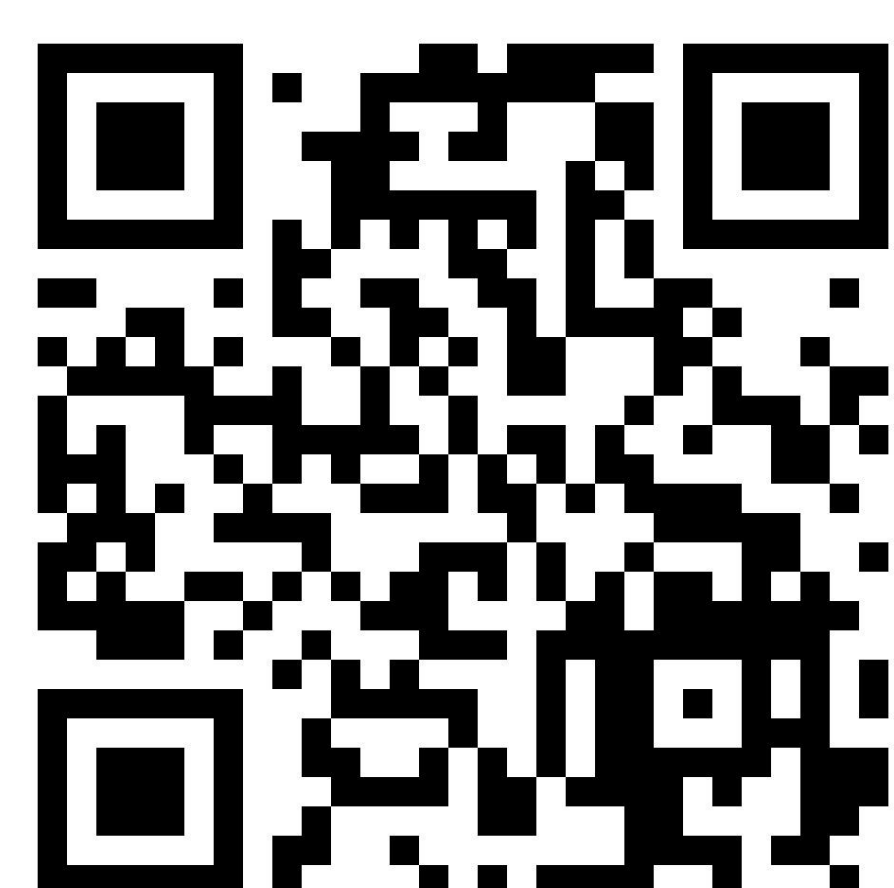


DEFINITION OF GEOETHICS

Geoethics is a field of theoretical and applied ethics focused on studies related to human-Earth system nexus. Geoethics is the research and reflection on principles and values which underpin appropriate behaviours and practices, wherever human activities interact with the Earth system. Geoethics deals with ways of creating a global ethics framework for guiding individual and social human behaviours, while considering human relational domains, plurality of human needs and visions, planetary boundaries and geo-ecological tipping points. Geoethics deals with the ethical, social and cultural implications of geoscience knowledge, education, research, practice and communication and with the social role and responsibilities of geoscientists.

(Peppoloni & Di Capua, 2023)



www.geoethics.org

PREAMBLE

In an increasingly interconnected and vulnerable world, combining pragmatism and relationality in geosciences is essential for addressing environmental challenges ethically and responsibly. Relational Geoscientific Pragmatism (RGP) underpins the method proposed by geoethics, offering tools to manage geological complexities within the context of modern societies. It fosters an integrated perspective where geosciences are closely linked to social responsibility and sustainability.

GEOETHICS METHOD

The Geoethics Method places respect for the environment, the sustainable management of natural resources, the safety and well-being of current and future generations at its core. It consists of integrating a practical, solution-oriented approach in geosciences with an ethical value system that guides decisions related to the management and human interaction with the Earth system. It focuses on context-specific solutions, applying rigorous scientific methods to the relationships between natural phenomena, societal needs, and decision-making processes in each context.

FUNDAMENTAL ELEMENTS OF GEOETHICS METHOD

- **Geoscience knowledge:** understanding natural phenomena and environmental dynamics, addressing challenges related to natural resource management, climate change, and environmental sustainability, and guiding the decision-making process enable accurate risk assessment and resource evaluation, offering objective and reliable data that underpin informed, evidence-based decisions.
- **Interdisciplinarity:** social-environmental issues are inherently complex and demand the integration of knowledge from a wide range of disciplines, including geosciences, social sciences, economics, law, and philosophy. The aim is to cultivate a holistic understanding of both natural systems and social contexts, ensuring that the interventions address the full complexity of the challenges, respecting their multifaceted nature.
- **Responsibility and scientific analysis:** geoethics demands all stakeholders to act responsibly, being aware of the consequences of their actions and balancing conflicting interests. The rigorous application of scientific analysis ensures that every decision is based on objective, verifiable, and up-to-date data. By prioritizing science, the geoethics method can navigate the value conflicts and ethical priorities that inevitably arise in decision-making processes.
- **Defining ethical dilemmas and scenarios:** the Geoethics Method identifies and analyse ethical dilemmas in human-environment relations, such as balancing economic growth with nature conservation, ensuring intergenerational justice, and protecting vulnerable communities. It facilitates scenario creation by envisioning outcomes of actions and evaluating them against sustainability, equity, and environmental respect.
- **Inclusivity and dialogue:** the Geoethics Method promotes the active involvement of all relevant stakeholders, including scientists, decision-makers, and local communities. This relational approach aims to find a reasonable alignment of values on which to base the choice of the best course of action for a given spatial and temporal context. Every proposed solution must be assessed not only for its technical feasibility but also for its capacity to address the needs and expectations of all stakeholders, thereby creating a dynamic balance between ecological and social concerns.

CONCLUSION

The Geoethics Method paves the way for responsible actions, helping decision-makers navigate modern challenges and create a geological governance model that seeks to strike a balance between scientific rigor and ethical and societal needs.