

Geodiversity and its conservation as a framing guideline for Geoethics in 21st Century

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Geodiversity refers to the collective abiotic diversity of our planet. It is defined as the natural range (diversity) of geological and geomorphological features, including their assemblages, structures, and interactions that contribute to the heterogeneity of landscapes and sustain the evolution of life. However, geodiversity has been typically undervalued in existing sustainability literature as well as in conservation policy frameworks. There is ample evidence of recent pervasive anthropogenic change of key surface processes of our planet, and this phenomenon of humans as earth-movers will leave indelible marks on the fossil record. It therefore becomes imperative to understand that the heterogeneity of abiotic landforms/processes and their integrity across geological time are fundamental factors underpinning all biodiversity and ecosystem services, and therefore are crucial for the sustenance of our civilization. This insight can be connected to the *intrinsic value* of geodiversity, which in turn should underpin any ethical framework for conserving the abiotic diversity of our planet. This paper posits the important argument for understanding, appreciating, and conserving the spatial and temporal integrity of geodiversity as the backbone for geoethics, and analyzes major challenges for conservation of dynamic earth processes through insights derived from natural heritage landscapes (such as UNESCO World Natural Heritage Sites and UNESCO Geoparks).

Keywords: Geodiversity , Abiotic elements , Intrinsic value , Geoethics , World Natural Heritage