

Appeal to UN and EU by researchers who attended the 12th biannual Joint European Thermodynamics Conference, held in Brescia, Italy, from July 1-5, 2013

Climate change and mineral resource depletion are two of the major challenges humanity is faced with, and are interlinked. The United Nations comprehensively addressed the former a few decades ago by setting up the United Nations Program for Environment and the Framework Convention on Climate Change, of which the International Panel on Climate Change is an offspring.

The above initiative can be seen as response model, which mobilizes the scientific community so as to provide ideas, tools, propositions, etc in the combat against climate change.

The depletion of mineral ores and of energy resources (as illustrated by the consumption of non-recycled rare earths and other minor metals), meanwhile, has become a major concern more recently since there is a growing awareness that it threatens the long term survival of humanity.

The laws of thermodynamics provide the central framework for the assessment of the use of energy and material resources as well as the Planet's dissipation of energy. Such laws can be used on a system's level, as well as on smaller scales.

In the quest for a better preservation of the Earth's resources endowment, we scientists, familiar with the power and possibilities of these laws, appeal to organizations of the international community for worldwide action and urge the UN and EU to ensure that proper attention is given to the analysis and evaluation of systems using non-renewable energy sources and minerals .

This Statement is signed by the following list of professionals who are using and developing the laws of thermodynamics:

Antonio Valero, Signe Kjelstrup, Daniel Tondeur, Gian Paolo Beretta Dick Bedeaux , Miguel Rubi, Bernard Rousseau, Jakob Yngvason, Doros Theodorou, Enzo Zanchini, Alicia Valero-Delgado, Jan Naudts, Peter Salamon, Yasar Demirel, Paško Županović, Vito Antonio Cimmelli, Fernando Bresme, Felix Llovel, Massimo Trovato, Vittorio Verda, Jean-Noël Jaubert, Ricardo Paez-Hernandez, Liliana Restuccia , Tommaso Ruggeri , Thuat Trinh, Daniel Favrat, Ván Péter, Wilhelm Schneider , Brauner Neima, Adam Moroz, Marina Ivashneva.