

**MANAGEMENT OF RESOURCES FOR SUSTAINABLE DEVELOPMENT:
ENTROPY “SHOWS” THE WAY**

D. TASSIOS, Professor

*Thermodynamics and Transport Phenomena Laboratory, Department of Chemical
Engineering-Section II, National Technical University of Athens, Heron
Polytechniou 9, Zographou GR-15780, Athens, Greece*

ABSTRACT

The idea of “Sustainable Development” raises the following basic question: Which “indicator” will be used to specify the degree to which a given activity is contrary to this purpose?

In this paper it will be shown that Entropy-this mystified concept of Thermodynamics which we hope to demystify- constitutes this indicator. To this purpose we will use four examples where generation of Entropy takes place and demonstrate that generation of Entropy is always contrary to Sustainable Development.

A forecast of future human activities suggests that large Entropy generation will continue. Sustainable Development can be achieved only by entering a “period of low entropy”, which requires however drastic changes in our values and our way of life.