



“Gheorghe Asachi” Technical University of Iasi, Romania



SUSTAINABILITY IN ENVIRONMENTAL REMEDIATION

Maria Emiliană Fortuna, Isabela Maria Simion, Maria Gavrilăscu*

*“Gheorghe Asachi” Technical University of Iasi, Faculty of Chemical Engineering and Environmental Protection,
Department of Environmental Engineering and Management, 73 Prof.dr.docent Dimitrie Mangeron Street, 700050 Iasi, Romania*

Abstract

The concept of sustainable development has become an important objective for policy makers, since the key principle of sustainable development understands the interdependence between economy, environment and society concerns. The objective of this study is to analyze the supports for sustainable environmental remediation, considering sustainability indicators and sustainable remediation practices, based on both methods that are known for a long time as well as emergent processes and technologies. The remediation system goal is to promote environmental quality, human health, well-being and safety. The emergence of sustainability ideas during the past two decades has catalyzed high levels of activity in generating facts on sustainability in the form of bioremediation and biomimetics, and also of indicators as metrics. Indicators are used for monitoring and assessment of various environmental impacts, and for social and economic issues. Bioremediation and biomimetic practices proved to be among the most sustainable for environmental remediation, where performed according to the type of contaminant, environmental component etc. So, they are applied for cleaning soils, surface water, groundwater, air contaminated with a wide range of toxic, persistent, recalcitrant chemicals.

Key words: bioremediation, biomimetic, environment, green remediation, indicators

Received: August, 2011; Revised final: November, 2011; Accepted: December, 2011

* Author to whom all correspondence should be addressed: e-mail: mgav@tuiasi.ro