THE USE OF EMAS III INDICATORS AND AHP
IN ORGANIZATION ENVIRONMENTAL PERFORMANCE ANALYSIS

Georgeta Madalina Arama*, Luoana Florentina Pascu, Carol Lehr

INCD-ECOIND Bucharest, 71-73, Drumul Podu Dambovitei District 6, 060652, Bucharest, Romania

Abstract

The paper presents a Multi-Criteria Decision Analysis (English acronym MCDA methodology to analyze organization environmental performance indicators designed according to Eco-Management and Audit Scheme III - Regulation (English acronym EMAS III). The newly proposed indicators are intended to achieve Best Environmental Management Practice (English acronym BEMP) to ease and harmonize the way the environmental performance is reported and analyzed periodically within the organization Environmental Management System (English acronym EMS). During each environmental management analysis, the state of accomplishment of the proposed objectives stated in the organization environmental policy should be checked. This way, adequate and timely measures should be taken to meet the objectives and improve environmental performance. While referential documents ISO 14000 standards series and European legislation - EMAS III Regulation requirements are well explained within environmental management literature, the instruments for their implementation at the organizational level need yet improvements. One such improvement endeavor is the release of BEMP sectoral documents which include new EMAS III indicators for environmental performance analysis. Instruments that should be used in order to analyze those environmental performance indicators can also be improved to help manage significant organization environmental impacts and their associated environmental risk. Using results from operational research field and applying them to the environmental management can produce reliable scientifically based methodologies. General considerations about how to use the Analytical Hierarchy Process (English acronym AHP) MCDA tool within environmental management analysis are presented.

Key words: AHP, EMS, environmental, indicators, MCDA

Received: February, 2014; Revised final: May, 2015; Accepted: May, 2015

* Author to whom all correspondence should be addressed: e-mail: madalinaarama@yahoo.com, evmt@incdecoind.ro; Phone: 04. 021. 410.03.77-261, 0724307609; Fax: 04.021.410.05.75, 04.021.412.00.42