

## **CLASSIFICATION OF EU COUNTRIES WITH RESPECT TO MULTIPLE ENVIRONMENTAL INDICATORS**

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### **EXTENDED ABSTRACT**

Environmental indicators are increasingly used at the national and international level in order to provide information about issues that are critical for the environmental quality. In the European Union, the role of indicators is emphasised in all recent decisions of the Council. Indicators are considered to go in parallel with the implementation of policies and strategies for environmental protection in the perspective of sustainable development. Using indicators for countries comparison is extremely difficult to result in clear inferences about the relative position of one country with respect to all others. The variety of issues affecting environmental stability, imposes a multifaceted consideration of indicators in order to understand and assess performances in each country. Therefore, there is a need to establish methodological approaches capable of synthesising the information provided by indicators and leading to an orderly classification of countries that can be exploited as a tool for driving policies towards the right direction.

The purpose of this paper is to present an alternative approach to combine indicators and illustrate on a comparative basis environmental performances of EU countries. The key methodological tools used to this purpose is the construction of a 2-dimensional matrix defined on the basis of pressure and eco-efficiency or response indicators and the exploitation of multi-criteria analysis for the elaboration and aggregation of scores. Multi-criteria analysis is increasingly utilized for developing decision aid tools and assisting policy makers in effectively handling various policy issues. The developed approach is implemented with a representative set of indicative environmental indicators for which data are available for all EU countries. Furthermore, the analysis is also embodying the time dimension in order to give a dynamic character to the assessment procedure.

The obtained results are revealing groups of countries with a rather similar overall environmental performance. It has been shown that the less developed EU countries are associated with lower pressures, while being rather inefficient in the way they use natural resources and protect the environment. So, the main challenge for these countries is to promote effective policy measures in order to achieve a more efficient and environmentally friendly development process. On the other side, the rest of EU countries, despite their similar level of economic growth, do not perform the same as regards their environmental pressures and their policy responses. There are countries, where the achieved high efficiency has resulted in low environmental pressures, and others, which should undertake more efforts in order to reduce environmental burdens.

**Key words:** environmental indicators, sustainable development, multicriteria analysis