

Decision Support System based on indicators and artificial intelligence in public and environmental management

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Abstract

A Decision Support System that was developed based on several environmental indicators (e.g. CO, NO₂ concentrations) and Artificial Intelligence in order to support decision making strategies in public management and environmental management for sustainable development. The developed system can be utilized to manage information regarding environmental indicators of several kinds so as to support decision making in public administration. The interpretation of the historical values of these factors can help public managers build forecasting models and perform environmental risk assessments. This paper describes the application, its structure and how predefined indicators can be used in combination with artificial neural networks in public and environmental management for supporting decisions regarding environmental issues in order to apply the adequate management strategies. Artificial Intelligence – based decision support systems are gaining ground the last years and this research is aiming at implementing neural networks as a sophisticated forecasting tool in order to support the decision making process for a more efficient environmental and public management.

Keywords: *artificial intelligence; Decision Support System; environmental management; neural networks; public management*

1. INTRODUCTION

Several studies have shown the increased need for reinventing government by implementing IT-enabled strategies in order to promote a thorough reformation of public sector management and also improved environmental planning practices [1,2].

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