Introduction

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Biographical notes: George Halkos, PhD, is Professor in Economics of Natural Resources in the Department of Economics at University of Thessaly. He is Director of the Operations Research Laboratory. His research interests are in the fields of applied statistics and econometrics, environmental economics, applied microeconomic with emphasis in welfare economics, air pollution, game theory, mathematical models (non-linear programming). He has published papers in many journals, acts as referee in many reputable scientific journals, has worked as team leader and research fellow in various research and academic institutions and has participated and presented his scientific work in international conferences.

Environmental problems are among the important reasons for government intervention in markets. Efficient allocations are expected in cases where property rights are well defined and valid while government interventions in markets are necessary in order to increase social benefits by demanding polluters to take into consideration the effects of their activities. This special issue pays attention to the complexity of the environmental problems and the ways environmental management is efficient.

It consists of five studies with applied theoretical and analytical contributions that provide insights and guidance for policy makers and government officials in designing new policy scenarios for the investigation of advances in environmental management. These empirical contributions provide also evidence to support and inform current policy debates.

The first study by Proikaki et al. explores the perceptions of local communities on the importance of corporate social responsibility (CSR) in industrial areas investigating the social factors affecting these insights. Apart from achieving a balance in the socio-economic system especially in industrial zones, this study may also guide policy changes in the CSR policy area concerning local attitudes and perceptions that affect public acceptability for enterprises and the promotion of benefits' distribution in local communities. The empirical findings of a study carried out in the Asopos river in the area of central Greece are presented and the factors investigated were proven to have a significant part in understanding perceptions towards CSR actions.

The second paper by Nikoloudis et al. provides a comparative financial and risk analysis of urban development projects. Inspired by the sustainable utilisation of Athens' Hellinikon airport, five different investing proposals for urban development are proposed and evaluated and significant conclusions are extracted from Monte Carlo simulations and calculation of mean values of the proposed indicators. This study reveals that discounted cash flows analysis may provide a technical scientific decision making support tool in urban development projects, justifying choices clearly and consistently.

The third study by Anthony et al. discusses the prominent role and involvement of information technology to sustainability as well as the framework of green information technology governance for eco-environmental risk mitigation. For this purpose, existing relevant works in green information technology governance and green risk mitigation domain are reviewed. The findings from this paper demonstrate that the proposed framework can help information technology practitioners to execute eco-environmental risk mitigation. The proposed framework also supports IT practitioners to progress enterprise green strategies and practices when reducing environmental risk. In this way, the framework operates as a Green IT governance guide for IT practitioners helping in the identification of the parameters and the related attributes necessary to reduce environmental risk in a less sophisticated and demanding eco-friendly manner.

The fourth paper by Kavouras et al. provides a direct association to analytics of biological functions and visualisation by introducing a visual framework in the background of a main computer algebra system, Mathematica, to represent variations and evolution schemes in gene expression analysis. Various colours are used to provide dynamic alternatives to make possible comparisons among treatments, several colour options to carry out reference gene selection tests and expose the variation of gene expression through time and/or among treatments or genes. This work concentrates in performing a visual interface to develop a tool helping biologists to place their data in Mathematica's computational environment and to represent accurately the magnitudes of changes in expression, by using both unscaled and autoscaled data in a variety of snapshots. This proposed qualitative approach was applied empirically with actual estimated values related to the development of *Solea solea* in early life stages. In this way, the visual selection of the reference gene illustrates time scale expression patterns during embryonic development. That is this visual approach is consistent with currently used methods in gene expression analyses and can help not only biologists but also policy makers in this type of scientific research.