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Impact, Risk and Life Cycle Assessment

**BEHAVIOUR OF PERSISTENT POLLUTANTS AND RISKS
ASSOCIATED WITH THEIR PRESENCE IN THE ENVIRONMENT –
INTEGRATED STUDIES**

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Abstract

The paper describes the complex research developed within a national research project. The proposed studies and researches are according to the thematic frame of the program cooperation-environment of FP7, whose fundamental objective is related to the natural and anthropogenic environmental problems and resources. Under this context, the project proposes a coherent, conceptual framework for integrated environmental risk assessment and management, generated by the presence of persistent pollutants that will be able to compare, evaluate and develop a set of methods and indicators for use in the assessment procedure, based on scientific concepts and methods. This is devoted to improve the knowledge and enlarge the database and that is already in force at national and international levels, in order to obtain more integrated assessments of risks and impacts. Research and information on some contaminants fate, transport and behaviour in the environment are provided, as well as the ways to evaluate the risks associated with the impacts induced in the environment. The research aims also to increase the understanding on the fate and effects of environmental persistent contaminants by performing experiments designed to aid the development of quantitative relationships and models. Based on experimental or calculated data models for characterizing and ranking diverse pollutants as an aid in risk assessment processes are developed. As a result of the fact that the proposed research within this project responds to the European research area priorities, its accomplishment will ensure the continuous performances of the Romanian research in the fields of environmental engineering and risk assessment, health and security, that will be visible at international level.

Key words: contamination, kinetics, modelling, remediation, risk, site characterization, soil
