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Environmental Integrated Management and Policy Making

**ASSESSMENT OF HUMAN AND NATURAL IMPACTS OVER WATER
QUALITY IN THE PRUT RIVER BASIN, ROMANIA**

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Abstract

The *Integrated Water Resources Management* (IWRM) concept evolved over time, the focus on river basin management, consultation and coordination with all water users, and the use of the "*polluter pays*" principle being all included in the EU Water Framework Directive (EC Directive, 2000), which forms the basis of water management undertaken in Europe.

The role and significance of water resources for sustainable development, as well as the water crisis experienced nowadays are influenced by water management, indicating the need for optimum management strategies and associated implementation alternatives. The integrated approach requires adequate information and communication within a structure that groups different stakeholders (industry, agriculture, other types of water users, civil society representatives, universities, research institutions, water authorities, waterworks companies), being thus characterized by a high level of complexity, and requiring the involvement of numerous decision-makers operating at different levels. Within the integrated approach, the association with specific policies and legal frameworks, *multidisciplinary research* (sciences, engineering, management), *education and training*, *communication*, *public participation* and *cooperation* at both national and international scale should be dealt with in a system that consider WATER flow and usage in its whole cycle of *supply*, *use* and *reuse/recycling*.

This paper presents an overview of the water quality problems in the Prut River Basin (Romania), by critically analysing the environmental particularities of the river basin, the major natural and human/industrial related impacts, the specific pollutant inputs and hydro-morphological pressures as well as the water supply and demand evolution in the last 3 years. This study is part of a complex research project that envisages the creation of technical and economical support systems for integrated water resources management in Romania (STEDIWAT project).

Key words: integrated water resources management (IWRM), water quality, priority pollutants

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