
Editorial

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Biographical Notes: Despo Fatta has been a Lecturer in the Department of Civil and Environmental Engineering at the University of Cyprus and responsible for the Laboratory of Environmental Engineering since 2003. Prior to this appointment, she worked as a researcher at the National Technical University of Athens, School of Chemical Engineering. From 2000 to 2004, she was also an inner circle expert of the European Topic Center of Waste and Material Flows of the European Environment Agency. She received a diploma in Chemical Engineering from the National Technical University of Athens in 1993, an MSc in Environmental Management from the European Association for Environmental Management and Education in 1995 (University of Athens, JRC Ispra) and her PhD from the National Technical University of Athens in 1999. Her principal research interests are in the field of environmental pollution monitoring techniques (water quality and xenobiotics in wastewater), wastewater treatment (e.g. anaerobic digestion and chemical oxidation), environmental hazard analysis and risk assessment and life cycle analysis of products and processes.

Rising water needs for urban areas, agriculture, industry and the environment, are creating competition over the allocation of scarce water resources. The supply of freshwater is finite and threatened by pollution. To avoid a crisis, many countries must conserve water, pollute less, manage supply and demand and reduce the impact of growing population. Thus, it is important and necessary to guarantee water availability over time by means of sustainable forms of management, which will allow the Mediterranean countries to cope with present demands without jeopardising environmental balance and the needs of future generations. The North African and Middle East countries are characterised by the lowest per capita amount of water supply in the world, unequally distributed both in space and in time. This special issue of the *International Journal of Environment and Pollution* aims at addressing various significant issues related to the sustainable urban wastewater treatment and reuse through the promotion of effective and safe practices.

In the same context, in May 2003, the MEDAWARE project was approved to be funded by the Euro-Mediterranean partnership with the aim to develop activities focused on the development of technical specifications for urban wastewater treatment technologies and systems and for urban wastewater utilisation. MEDAWARE aims at increasing the safe reuse of wastewater in agriculture with the overall objectives of water saving, safe effluent disposal and protection of environment and public health from the

uncontrolled reuse of raw or low-quality effluent. The project also aims at supporting the competent authorities and all actors involved in the field of urban wastewater treatment and reuse by providing them with tools and methods for the promotion of best practices (tailored to local needs and constraints) in respect to wastewater treatment and reuse.

Within the framework of the project activities, in September 2005, an international conference was held in Cyprus under the title 'First International Conference on Sustainable Urban Wastewater Treatment and Reuse', SUWTR 2005.

About 70 papers were presented during the conference. Authors and attendees from more than 15 countries had fruitful discussions within the following main topic areas:

- integration of wastewater reuse in the overall water resources management
- technologies for sustainable treatment
- quality standards
- wastewater reuse systems
- risk assessment and management related to wastewater reuse issues
- socioeconomic issues related to wastewater reuse
- training and capacity building
- case studies in the Mediterranean countries.

Eight papers from the conference have been selected and are presented in this issue of the International Journal of Environment and Pollution. The objective of this special issue is to provide a stimulus to people, scientists and researchers towards the safe reuse of wastewater, which consequentially will contribute to the exploitation of a supplemental water source, the conservation of fresh water, the safe effluent disposal and the protection of environment and public health. The issue focuses on integrated water strategies and policies and it presents studies that highlight the potential for wastewater reuse, identify the areas of concern, and examine the most important factors that affect wastewater reuse. In order to implement such integrated and sustainable water systems, the application of integrated monitoring and evaluation systems are necessary. Through this issue, monitoring and early warning systems are also presented. Finally, this issue provides an evaluation and examples of the operation of constructed wetlands and a discussion on the relation between wetlands and wastewater reuse.

On behalf of the organising committee of SUWTR2005 and of the consortium of the MEDAWARE project (<http://www.uest.gr/medaware/>), I would like to express our gratitude to the European Commission and most specifically to the Euro-Mediterranean Programme for Local Water Management for funding the project and providing us with the opportunity to contribute to this very interesting scientific field.