



International Interdisciplinary Conference on  
**Land Use and Water Quality**  
Agricultural Production and the Environment  
Vienna, Austria, 21-24 September 2015

# VOLUME OF ABSTRACTS

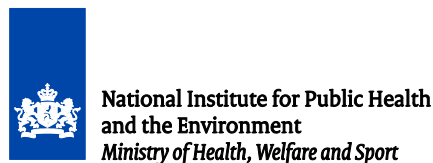
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International Interdisciplinary Conference  
on  
**Land Use and Water Quality:**  
**Agricultural Production and the Environment**

**21 – 24 September 2015**  
**Vienna, Austria**

**The conference is jointly convened by:**

- Universität für Bodenkultur Wien (BOKU), University of Natural Resources and Life Sciences, Institute of Hydraulics and Rural Water Management (IHLW), Vienna, Austria
- RIVM National Institute for Public Health and the Environment, the Netherlands
- Department of Bioscience, Aarhus University, Denmark
- Umweltbundesamt, Environment Agency Austria
- Umweltbundesamt (UBA), Federal Environment Agency, Germany
- Faculty of Science, Charles University, Prague, Czech Republic



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### **About this publication**

The abstracts in this volume were submitted to the LuWQ2015 conference. The abstracts were evaluated by members of the Scientific Advisory Committee, resulting in the allocation in the oral presentations (platform presentation) and poster presentations. This volume contains only those abstracts that are expected to be actually presented at the conference.

The Editors take no responsibility for any error and omission or for the opinions of the authors.

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## **PREFACE**

Growing population and increasing wealth are incentives for further growth of the agricultural production in all parts of the world. The potential drawback of growth of the agricultural production is an increase in the pollution of the terrestrial and aquatic environment by nutrients, pesticides and trace elements as it has occurred in developed countries worldwide since 1950s. Environmental directives of the European Union (EU), for example, the Nitrates Directive (ND), Groundwater Directive (GD) and the Water Framework Directive (WFD), aim at reducing the impact of agriculture (ND) and other sectors (GD, WFD) on the aquatic environment. EU member states are obliged to make programmes of measures to abate and reduce environmental pollution.

Programmes of measures are the outcome of a political process involving science, policy, stakeholders and interest and pressure groups. Governments use programmes of measures to reach pre-defined environmental goals, such as good water quality. Programmes of measures contain obligation for actors, e.g., farmers, owners of nature areas or drinking water supply companies. Governments evaluate and adapt these programmes regularly. The success of implementation of these programmes depends, amongst others, on the acceptance of the programme of measures by the actors, advice and education, controls and enforcement.

The conference aims to discuss the entire policy cycle for water quality improvement. This cycle includes problem recognition, formulation of technical options, the process of policy development, interaction with policy makers, stakeholders and pressure groups, policy implementation, monitoring and research. This conference also aims to intensify contacts, on the one hand, between scientists with a background in natural sciences and scientists with a background in social and economic sciences and, on the other hand, between scientists, water managers and policy makers. In short, the objectives are:

- to provide forum for exchange of scientific knowledge, research on system knowledge, modelling and uncertainty;
- to discuss the entire policy cycle for water quality improvement;
- to intensify contacts (a) between soil/water related scientists, agro related scientists, social scientists, ecological scientists and economists, and (b) between scientists, water managers and policy makers.

This prepublished volume contains the selected abstracts as they were received. The Abstract Numbers in the TABLE OF CONTENTS are identification numbers, assigned as part of the submission process. **These abstract identification numbers are referred to from the Conference Programme, both for oral and poster presentations.** For example, “(abstract #166)” in the Conference Programme relates to “Abstract number 166 – Evaluation of the N effect of the Danish Action Plans: 25 years results of monitoring” in this Volume of Abstracts.

We wish you a fruitful and enjoyable stay in Vienna.

### **The LuWQ2015 Organising Committee:**

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