

Iberian Trans-boundary Water Management



nº 08-2012

Iberian Trans-boundary Water Management (IB-TWM): experiences from the past and approaches for the future

CALL for PAPERS and WORKSHOPS - TWAM2013 International Conference & Workshops

Transboundary water resources management across borders and interfaces: present and future challenges

The **TWAM2013 International Conference & Workshops** will be held from 16 to 20 March 2013 at the University of Aveiro in Portugal. The overarching objective of the TWAM2013 International Conference & Workshops is to address "Present and future challenges in transboundary water resources management across borders and interfaces", with particular focus on:

1. Water resources modelling
2. Technological and natural solutions
3. Environmental impacts, ecosystems services and values
4. Economic incentives and instruments
5. Water governance, institutions and regulations
6. Stakeholder engagement
7. Planning water resources and land use
8. Integrated assessment and decision support tools

For further information, consult <http://ibtwm.web.ua.pt/congress/>.

TWAM 2013
International Conference & Workshops

16 - 20th March 2013 Aveiro - Portugal

Transboundary water management across borders and interfaces: present and future challenges

Home | Objectives | Conference | Committees | Publications | Report Dates | Registration | Venue | Downloads | Contacts

Transboundary water management across borders and interfaces: present and future challenges

Rationale:
Terrestrial, freshwater and marine ecosystems are linked through a number of bio-geo-chemical as well as socio-economic and politico-institutional processes that are, in turn, affected by processes from globalisation, climate change, population growth, economic development, resource depletion, pollution and technological progress. These linkages constitute a web of mutual benefits as well as a range of negative impacts and losses, potentially leading to tensions, conflicts and welfare losses. The application of neo-classical and isolated approaches in watershed, coastal or marine management systems, their limited community and stakeholder integration as well as their deficient inter-institutional and multi-sector coordination efforts to develop and implement viable intervention strategies, has led to inefficient approaches for tackling the socio-environmental problems that are faced by socio-ecological systems at the land-freshwater-sea interface.

A core challenge lies in the provision of research support aiming at risk reduction from environmental hazards in these socio-ecological systems at the land-freshwater-sea interface, through more sustainable use and management of the natural resources and ecosystem services that sustain societies, societies and human well-being, based in environmental, social and/or economic sciences, water resources management models, approaches and frameworks that have been developed within the research community to cope with the complexity of water resources management issues as to improve its outcomes. These studies generally aim to achieve more holistic sustainable water resources management through integration that most adequately reflects the complex relationships between water, food, ecosystems, capital, technologies, institutions, communities and/or governance systems. Water resources management across social boundaries and/or ecological interfaces is linked to terrestrial, freshwater and marine socio-ecological systems posing, however, additional scientific and managerial challenges.

The overarching objective of the TWAM2013 International Conference is to address these challenges in "Transboundary water resources management across borders and interfaces", with particular focus on (see conference topics):

1. Water resources modelling
2. Technological and natural solutions
3. Environmental impacts, ecosystems services and values
4. Economic incentives and instruments
5. Water governance, institutions and regulations
6. Stakeholder engagement
7. Planning water resources and land use
8. Integrated assessment and decision support tools

A specific application of SWAT for the Cértima catchment has been presented at the 21st Century Watershed Technology Conference and Workshop (27 May to 1 June 2012, Bari, Italy)

Assessing the cost-effectiveness of reduced N-fertilizer application rates and alternative application regimes

We assessed the cost-effectiveness of key Best Agricultural Practices (BAPs; reductions in single, split and slow-release nitrogen fertilizer application rates) across two agricultural land uses (corn and vineyards) in the Cértima catchment (Portugal). It is shown that split and slow release nitrogen application regimes provide significant private benefits and water quality improvements in both corn and vineyard production. Reduced nitrogen application rates are only worthwhile in corn production.

The application of SWAT to the transboundary Minho catchment is underway!

The SWAT model has now been parameterized for the transboundary Minho catchment, and currently undergoing an iterative calibration process.



Dr Peter C. Roebeling
Centro de Estudos do Ambiente e do Mar (CESAM)
Departamento de Ambiente e Ordenamento
Campus Universitário de Santiago
Universidade de Aveiro
3810-193 Aveiro

www.ibtwm.web.ua.pt
Tel.: +351 234 370 387
E-mail: peter.roebeling@ua.pt
URL: <http://www.cesam.ua.pt/roebeling>

