## Justification and interest of the workshop

Many regions of the world are experiencing severe water stress. Unsustainable increases in water use are provoking growing competition for water resources, tensions among different users, water quality deterioration and the degradation of aquatic ecosystems. Addressing all these issues requires a multi-disciplinary inter-sectoral and participatory approach to water resources management.

The Water Evaluation and Planning system (WEAP) is a useful microcomputer tool for integrated water resources management that goes a step beyond conventional supply-oriented water simulation models. It simulates a broad range of natural and engineered components of a water system and allows the user to evaluate a full array of water development and management options based on a context defined by vulnerability and climate change impacts, water rights and allocation priorities, ecosystem requirements, reservoir operations, hydropower generation, and pollution tracking. WEAP also includes linkages to other models, such as MODFLOW (groundwater), QUAL2K (water quality), MABIA (crop water use and irrigation scheduling), PEST (parameter estimation), and has been integrated with socio-economic models and knowledge elicitation tools.

WEAP attempts to assist in the planning and management of water systems by providing a flexible and user-friendly framework and a more comprehensive view of the ample diversity of factors that affect water use and water management in the short and long term. The WEAP model has been applied from single subbasins to complex river systems in Spain, Italy, Germany, Lebanon, Israel, Egypt, Ethiopia, Benin, South Africa, China, India, the United States, Mexico, Guatemala, Peru, and Chile, among many others.

## Aims of the workshop

The main purpose of the workshop is to build capacity and proficiency in the use of the WEAP software. The workshop will include three streams of activities:

- Learning WEAP. This is the core activity of the workshop. It includes computer-based presentations on how to use WEAP and a variety of training exercises that will allow participants to get familiar with the wide range of applications that can be built using WEAP. The modeling exercises will be conducted in small groups to encourage interaction among the participants and active learning about how WEAP might be used in 'real' settings.
- II. Using WEAP as an integrated platform to analyze climate and policy impacts. This part is devoted to the study of integrated modeling platforms that link WEAP with other related tools, such as knowledge elicitation tools, economic models, climate platforms, and Google Earth. Several demonstrations of the different integrated platforms will be presented.
- III. Developing your own WEAP application. We encourage attendees to come to the workshop with their own data to develop original WEAP applications. A list of recommended data will be sent to all participants in advance in advance of the event. Part of the final day will be reserved to present and discuss the WEAP applications developed by the participants.

The workshop is designed to meet the needs of water managers and planners, water user associations, technical consultants, researchers and graduate students interested in climate change, water management and policy.

## Venue and working language

The workshop will be held from 12 to 15 April 2011 in the computer room of ETSI Agrónomos, Universidad Politécnica de Madrid, located at Av. Complutense s/n, 28040, Madrid (Spain) (Metro: Ciudad Universitaria).

All lectures and class materials will be in English.

## **Registration and payment procedures**

30 seats will be filled on a first come first serve basis, so participants are encouraged to register as early as possible to ensure a place and avoid disappointment.

## \*Registration closes March 15th.

Please, register online at <u>WEAP International</u> <u>Workshop</u> or send completed registration form to the Workshop Secretariat at <u>katerina.kucerova@upm.es</u>

Upon receiving your registration information a confirmation letter will be e-mailed to you. Participants have 5 days to make payment for the workshop after receiving the confirmation e-mail.

## Workshop fees

- Regular fee: 600€
- Graduate students (MSc, PhD): 300€

Fees include: participation to all sessions, coffee and refreshments, lunches, one social dinner, supplies and class materials (CD-ROM), one year free license of WEAP (a 2-two year license typically sells for 2225€), and a certificate of attendance. Fees do not include: accommodation and travel expenses. Accommodation bookings must be arranged individually. A list of recommended hotels will be provided.

### **Payment**

Payment is required after confirmation of attendance and is non-refundable. All attendees are responsible for the full fee. Participants can pay by credit card or bank transfer.

## Organization

The workshop is organized within the framework of the activities of the EU projects SCENES (Water Scenarios for Europe and for Neighboring States) and MEDIATION (Methodology for Effective Decisionmaking on Impacts and AdaptaTION) funded by the European Commission.

#### Workshop leadership

Director: Consuelo Varela-Ortega. Professor of Agricultural Economics at UPM and coordinator of the Mediterranean region in the Scenes project. Her work deals with the interactions of human and natural systems. Email: consuelo.varela@upm.es

Co-Director: Irene Blanco-Gutiérrez. Postdoctoral researcher in water and agricultural economics at UPM within the framework of the EU projects Scenes, Mediation and Medpro. Email: irene.blanco@upm.es

#### Lecturers

David Purkey heads the SEI-US water group. His work centers on the development, dissemination and application of the SEI's WEAP system. Email: dpurkev@sei-us.org

Marisa Escobar. Scientist at SEI in Davis. CA. USA. Her work focuses on interdisciplinary linkages between biological and physical processes as well as climate change analysis. Email: marisa.escobar@sei-us.org

Consuelo Varela-Ortega and Irene Blanco-Gutiérrez. UPM, Spain.

#### **Guest lecturers:**

Nicola Lamaddalena, head of the Land and Water Department at the IAM Bari in Italy and expert in irrigation engineering. Rob Swart (to be confirmed) is coordinator of the Mediation project and director of international climate change adaptation research at Alterra in Wageningen University and Research Centre, The Netherlands.











### Contact

## **Workshop Secretariat**

All correspondence relating to the registration, accommodation and travel information should be sent to:

#### Katerina Kucerova

CEIGRAM

ETSI Agrónomos, Universidad Politécnica de Madrid Ciudad Universitaria, 28040, Madrid (Spain)

E-mail: katerina.kucerova@upm.es

Tel.: + 34 914524815

Fax: + 34 914524818

Further information on the event may also be obtained by contacting Irene Blanco (irene.blanco@upm.es)

# **International Workshop:**

Using WEAP as a decision support system for water resources management and adaptation to climate change

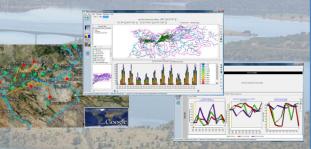
12-15 April 2011

ETSI Agrónomos, Av. Complutense s/n, 28040, Madrid (Spain)



**Water Evaluation And Planning** 

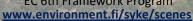
(www.weap21.org)



# **EU Projects**



SCENES (Water Scenarios for Europe and for Neighboring States) (Nº 036822-2) EC 6th Framework Program





**MEDIATION** (Methodology for Effective **Decision-making on Impacts and** AdaptaTION) (Nº 244012) **EC 7th Framework Program** www.mediation-project.eu/

