

International Conference

Linkages between Energy and Water Management for Agriculture in Developing Countries

Hyderabad, India 29-30 January 2007

Organised by the International Water Management Institute (IWMI) and the International Crops Research Institute for the Semi-Arid Tropics (ICRISAT)
in collaboration with
the International Water and Resource Economics Consortium (IWREC)

First announcement

Motivation and background:

The development and management of water and energy have been to a large extent independent. The growing scarcity of energy and concerns about climate change increased the values of understanding the linkages between water resource planning development and energy use.

Scope and objectives:

This conference is a first step towards gathering a group of stakeholders and researchers (from CGIAR centers, academics, policy makers) involved with energy and agricultural water issues to exchange information and experience, promote collaboration, and formulate joint research to address emerging problems. The scope of the conference stretches from empirical to theoretical and policy studies. The objectives of the initial conference are threefold:

- to develop an understanding of present and future water and energy issues facing agriculture in the developing countries
- to identify water and energy problems, questions, operations and decisions that can be improved with better decision support tools, technology, regulations, and outreach
- to identify priority research areas that will provide information to policy makers to meet the challenge in water and energy production, allocation and management for agriculture in the coming decades.

Programme:

The programme will consist of plenary sessions with keynote speakers, contributed papers and panel discussions. The conference opens with a reception on Sunday evening, 28 January. The scientific programme starts on Monday morning, 29 January and closes on Tuesday 30 January. On Wednesday 31 January there will be a social event.

Sunday 28 January 2007: Arrival and welcome reception in the evening

Monday 29 January 2007: Conference

Tuesday 30 January 2007: Conference

Wednesday 31 January 2007: Hyderabad city tour

Keynote speakers

David Zilberman, University of California, Berkeley, USA

Frank Rijsberman, IWMI, Sri Lanka

Call for papers

We would like to invite you to submit the title of your paper electronically before 20 November and the contributed paper as a pdf file before 20 December 2006 addressed to petra.hellegers@wur.nl. The following information should be included in the paper:

- (i) The title of the paper;
- (ii) Name(s) of author(s), with the surname of the paper presenter in capital letters;
- (iii) Institutional affiliation of all authors;
- (iv) Complete postal and e-mail address of the paper presenter.

Selected papers will be considered for publication in a special issue of refereed journal and in a book on this specific topic to be published by IWMI.

Topics

Possible questions to be addressed include:

What are important linkages between energy security and irrigation water management?

- What are the *direct implications* of higher energy prices on for instance:
 - area irrigated (a reversion back to rainfed cropping), agricultural output and trade;
 - the choice of irrigation technology, for example water-saving technologies;
 - water conveyance and pumping (will it curtail groundwater extraction) costs;
 - distribution of losses among producers/consumers/poor (reduce energy subsidy);
 - competitiveness of bio-fuels (at what price of oil do bio-fuels become competitive);
- What are the *indirect implications* of increased demand for bio-fuels on for instance:
 - water scarcity;
 - agricultural markets (a global increase in the use of agri. raw products for bio-fuels may result in higher *food prices*, which would hit the poor in developing countries);
 - competition with food or fodder crop production (size and productivity of land);
 - food security concerns (little understanding whether competition will actually arise) ;
 - adoption of technologies that increase water supply, i.e. will higher-value demand for bio-fuels trigger desalinization of brackish and sea water to provide new water sources
 - developing countries: what will be the supply response of currently efficient producers of ethanol (Brazil) and biodiesel (Malaysia, Indonesia) and export potential of small-scale producers; what will be the effects on employment; what will be the pressure on eco-sensitive areas, notably rainforests, which will be transformed into plantations.
 - vulnerable communities: where large scale expansion of agri. production takes place, new land is cleared and/or land hitherto considered marginal increases in value, which may increase pressure on marginal communities to move away or to adapt lifestyles;
 - social cohesion: new land-based opportunity can create multiplier effects;
 - the environment (reducing air and water pollution and erosion)?
- What factors drive water scarcity and consequently demand for agricultural energy
- Who are the biggest major water consumers (bio-fuels, agriculture, nature) in a basin?
- How to *address the water and energy security issues* facing agriculture?
- What is the *value of improved water management versus extra energy costs* (trade-off)?

International scientific committee:

David Zilberman (UC Berkeley)

Ujjayant Chakravorty (College of Business, University of Central Florida)

Madhu Khanna (University of Illinois at Urbana-Champaign)

Claudia Ringler (IFPRI, DC)

Nicholas Brozovic (University of Illinois at Urbana-Champaign)

Local organising committee:

Petra Hellegers (IWMI), Madar Samad (IWMI), Mark Giordano (IWMI)