

# **Sustainable Irrigation 2012**

## **4th International Conference on Sustainable Irrigation and Drainage: Management, Technologies and Policies 2012**

**11-13 December 2012**

**University of South Australia, City West campus**

The Centre for Regulation and Market Analysis (CRMA) in conjunction with The Wessex Institute of Technology, UK organised the Sustainable Irrigation 2012 Conference. The conference was held at the University of South Australia, City West campus from the 11-13 December, 2012.

The 2012 Sustainable Irrigation Conference provided a unique forum for multidisciplinary discussion. The objective of the meeting was to generate debate and ideas about how to make irrigation more environmentally, socially and economically sustainable.

The conference theme acknowledged that sustainability is not a fixed and clearly defined objective, rather it is a goal that is always changing as knowledge and biophysical realities alter. In that sense, moving towards sustainability is a journey with an ever evolving destination. Irrigation, as the biggest water user in most regions of the world, is facing significant challenges in balancing social, economic and environmental needs for water.

# CONFERENCE PROGRAMME

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4th International Conference on Sustainable  
Irrigation and Drainage: Management,  
Technologies and Policies



## Sustainable Irrigation 2012

### **NOTES TO CHAIRMEN AND PRESENTERS**

- *Chairmen must be in their respective rooms 10 minutes before the start of their session to meet with the presenting authors.*
- *Authors must meet with the Chairman of their session 10 minutes before the start of the session.*
- *Authors must keep strictly to the time allocated for their presentation to ensure the smooth running of the programme.*
- *This programme is subject to last-minute alterations, please refer to the conference noticeboard for the most up-to-date information.*

**11 - 13 December 2012  
Adelaide, Australia**

#### **Organised by:**

University of South Australia (UniSA), Australia  
Wessex Institute of Technology, UK

#### **Sponsored by:**

School of Commerce, UniSA  
Centre for Regulation and Market Analysis, UniSA  
University of Lethbridge, Canada  
WIT Transactions on Ecology and the Environment  
CSIRO

#### **Supported by:**

International Journal of Sustainable Development and Planning

# CONFERENCE PROGRAMME



Sustainable Irrigation 2012  
11 - 13 December, Adelaide, Australia



Tuesday, 11 December 2012

- 08.40 **Opening addresses from the Conference Chairmen**
- 08.50 **Official welcome by Professor Sakkie Pretorius, Deputy Vice Chancellor: Research and Innovation, University of South Australia**

09.00 **Keynote address:**  
Property rights and sustainable irrigation: a developed world perspective  
*Michael Hanemann, University of California, Berkeley and Arizona State University, USA*

09.45 **Keynote address:**  
Property rights and sustainable irrigation: a developing countries perspective  
*Ruth Meinzen-Dick, International Food Policy Research Institute, Washington D.C., USA*

**10.30 REFRESHMENT BREAK**

11.00 The evolution of water trust funds in Ecuador  
*Craig Kauffman, University of Oregon, USA*

11.30 Sustainable irrigation: Alberta perspectives  
*Henning Bjornlund, University of South Australia and University of Lethbridge, Canada*

12.00 Water markets and the Murray Darling Basin Plan  
*Heather Cotching, Murray Darling Basin Authority, Australia*

**12.30 LUNCH BREAK**

**Session 3a: Governance for sustainable irrigation**  
**Chairman: S. Wheeler**

- 14.00 Volumetric conversion of allocations: a means to an end or an important process in its own right?  
*M. A. Skewes & R. Carruthers* 391
- 14.20 Sustainable development of irrigation in Kukadi integrated project by transfer of surplus water from one reservoir to other  
*U. V. Siddamal & C. A. Birajdar* 403
- 14.40 Recreational value of irrigation infrastructure: a case study of Chestermere Lake, Alberta, Canada  
*R. Bewer, W. Xu & H. Bjornlund* 413
- 15.00 Market based instruments: issues and opportunities for agriculture and water quality services in Alberta, Canada  
*G. L. Kerr & H. Bjornlund* 425

**15.20 REFRESHMENT BREAK**

**Session 3b: Irrigation modelling (I)**  
**Chairman: H. M. Al-Ghobari**

- 14.00 Global change implications on long-term water supply and demand forecasts in the Columbia River Basin  
*M. Barber, J. Adam, M. Brady, K. Chinnayakanahalli, K. Rajagopalan, S. Dinesh, C. Kruger, C. Stockle & G. Yorgeya* 77
- 14.20 Drip versus surface irrigation in long term environmental modelling of soil-water-plant exposed to saline water  
*L. P. Kasmaei & P. E. Jansson* 87
- 14.40 Modelling the impact of pulsing of drip irrigation on the water and salinity dynamics in soil in relation to water uptake by an almond tree  
*V. Phogat, M. A. Skewes, J. W. Cox & M. Mahadevan* 101
- 15.00 Seepage rate estimation from total channel control data during periods of shut down: preliminary data quality assessment case study – Coleambally irrigation system  
*A. M. Shahidi, R. Smith & M. Gillies* 115

**15.20 REFRESHMENT BREAK**

# **Sustainable Irrigation and Drainage IV**

Management, Technologies and Policies

**Edited By: H. BJORNLUND, University of South Australia & University of Lethbridge, Canada; C.A. BREBBIA, Wessex Institute of Technology, UK and S. WHEELER, University of South Australia, Australia**

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## **Book Contents**

### **The evolution of water trust funds in Ecuador**

C. M. Kauffman; M. Echavarría;

### **Sustainable irrigation: Alberta perspectives**

H. Bjornlund; W. Xu;

### **Selling water for the environment: how sustainable is it for irrigators?**

S. Wheeler; A. Zuo; H. Bjornlund;

### **Econometric assessment of the impact of drought on Murray-Darling Basin irrigation**

J. D. Connor;

### **What kind of a market for what kind of water? Geographical perspectives on Murray-Darling water reform**

B. Pritchard; M. Valli;

### **“Localism” as an approach to community participation in Australian water planning**

P. L. Tan;

### **Global change implications on long-term water supply and demand forecasts in the Columbia River Basin**

M. Barber; J. Adam; M. Brady; K. Chinnayakanahalli; K. Rajagopalan; S. Dinesh; C. Kruger; C. Stockle; G. Yorgey;

**Drip versus surface irrigation in long term environmental modelling of soil-water-plant exposed to saline water**

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**Modelling the impact of pulsing of drip irrigation on the water and salinity dynamics in soil in relation to water uptake by an almond tree**

V. Phogat; M. A. Skewes; J. W. Cox; M. Mahadevan;

**Seepage rate estimation from total channel control data during periods of shut down: preliminary data quality assessment case study–Coleambally irrigation system**

A. M. Shahidi; R. Smith; M. Gillies;

**Novel reverse osmosis desalination of sea water**

D. F. Dyer; J. S. Ragan;

**Analysis of water consumption of a drip irrigation system compared with sprinkler installation: a case study in Sicily (Italy)**

M. L. Deangelis; G. Negrini;

**Forecasting daily net irrigation requirement maps of India using an ArcGIS toolbar**

A. Bandyopadhyay; K. Mahendra; N. S. Raghuwanshi;

**Planning of sustainable agricultural groundwater development in canal areas**

D. Kashyap; S. Ghosh;

**Irrigation management of Romaine lettuce in Histosols at two spatial scales: water, energy, leaching and yield impacts**

Y. Périard; J. Caron; S. Jutras; J. A. Lafond; A. Houlliot;

**A fuzzy logic based irrigation management system in arid regions applied to the State of Qatar**

F. Touati; M. Al-Hitmi; K. Benhmed;

**Subsurface drip irrigation with reclaimed water: issues we must think now**

M. M. H. Oliver; G. A. Hewa; D. Pezzaniti;

**Nutrient management in effluents derived from agricultural industries: an Australian perspective**

R. Matheyarasu; B. Seshadri; N. S. Bolan; R. Naidu;

**Greenhouse gas emission from wastewater irrigated soils**

R. Thangarajan; A. Kunhikrishnan; B. Seshadri; N. S. Bolan; R. Naidu;

**Utilization of sweet potato starch wastewater for biofertilizer production by**

C. Zhou; S. Xu; M. Zhang; Y. Chen; X. Guan; S. Wu; Z. Bai;

**Factors responsible for the effective introduction of water-saving irrigation facilities in the Tarim River Basin**

T. Yamamoto; A. Jalaldin; T. Nagasawa;

**Utilization and management of irrigation water for sustainable farming of Macadamia nuts in Piesanghoek cropland in Limpopo Province, South Africa**

F. I. Mathivha; P. M. Kundu; J. O. Odiyo; R. Makungo;

**Satellite based yield and water use targets for horticultural crops grown in SE Australia**

M. G. O'Connell; D. M. Whitfield; A. T. McAllister; L. McClymont; M. Abuzar; K. J. Sheffield;

**Determination of water requirement and irrigation timing for in Maiduguri metropolis, north-eastern Nigeria**

A. Y. Arku; S. M. Musa; A. L. E. Mofoke;

**Generation of monthly irrigation maps for India using spatial interpolation techniques**

A. Bhadra; N. S. Raghuwanshi; R. Singh;

**Field comparison of drip and hose reel irrigation performance: results of a three year research project in Italy**

G. Ghinassi;

**A comparison of water application uniformity for drip irrigation system above and below soil surface at various soil depths and scheduling techniques in arid region**

H. M. Al-Ghobari;

**Developing an asset management plan for a sustainable future Indonesia irrigation systems**

I. Kustiani; D. Scott;

**Biomass yield and partitioning of greenhouse grown indigenous crop in**

**response to irrigation frequency and NPK fertilizer application rate**

R. J. Nkgapele; M. S. Mphosi;

**Effects of deficit irrigation on yield and water use of grown cucumbers in Saudi Arabia**

A. M. Alomran; I. I. Luki;

**Response of leaf, non-leaf yield characters and plant fraction interrelationship of indigenous wild cucumber to varying irrigation intervals and NPK fertilizer rates**

R. J. Nkgapele; M. S. Mphosi; K. G. Shadung;

**Effect of deficit irrigation on yield and yield components of sunflower on Gezira clay soil, Sudan**

E. R. A. Elsheikh; B. Schultz; A. M. Haili; H. S. Adam;

**Effect of irrigation frequency and NPK level on yield efficiency, resource use and harvest index of indigenous wild cucumber**

R. J. Nkgapele; M. S. Mphosi;

**Volumetric conversion of allocations: a means to an end or an important process in its own right?**

M. A. Skewes; R. Carruthers;

**Sustainable development of irrigation in Kukadi integrated project by transfer of surplus water from one reservoir to other**

U. V. Siddamal; C. A. Birajdar;

**Recreational value of irrigation infrastructure: a case study of Chestermere Lake, Alberta, Canada**

R. Bewer; W. Xu; H. Bjornlund;

**Market based instruments: issues and opportunities for agriculture and water quality services in Alberta, Canada**

G. L. Kerr; H. Bjornlund;

**Price and volume relationships across water trading zones**

R. Brooks; E. Harris;

**The association between farm management strategies and irrigators' farm profits over time in the Murray-Darling Basin**

A. Zuo; S. Wheeler; H. Bjornlund; M. Shanahan;



**Against the grain: segmenting and profiling irrigators opposed to water transfers in Alberta, Canada**

K. C. Lafreniere; H. Bjornlund; S. Deshpande;

**Australian farms and the separation of land and water titles: a research agenda**

E. F. Smith;

**The Murray-Darling Basin plan and public policy failure: a transaction costs analysis**

A. Loch; R. McIver;

**Trust in the trust! Basin reforms and the Renmark Irrigation Trust**

P. Chapman; G. M. Robinson;

**Best practice pricing principles vs. the politics of water pricing**

B. Cooper; L. Crase; N. Pawsey;