

Transforming smallholder irrigation into profitable and self-sustaining systems in southern Africa.

Host : UniSA *

Presenters

Henning Bjornlund(University of south Australia, Australia)

Jamie Pittock(Australian national University, Australia)

Makarius Mdemu(Ardhi university, Tanzania)

Martin Moyo(International Crop Research Institute for Semi-Arid Tropic (ICRISATs, Zimbabwe)

Felicidade Jorge(Bern University, Mozambique)

Andre van Rooyen(International Crop Research institute for Semi-Arid tropics (ICRISAT), Zimbabwe)

Henning Bjornlund(University of south Australia, Australia)

Karen Parry(university of South Australia, Australia)

Ana Manero(Crawford School of Public Policy, The Water Justice Hub, Australian National University, Australia)

Description

Body

1) Short Description

The proposed special sessions will be organized by University of South Australia and sponsored by the Australian Centre for International Agricultural Research (ACIAR).

A description of how the session will be organized and managed;

We propose two sessions. One session with an introduction (10 min) and five papers of 16 minutes per paper (80 minutes). A second session with three papers (48 min), and a discussion between the audience, the authors and the respondents (42 minutes).

Session Chair: Prof Henning Bjornlund, University of South Australia

Speaker at the session

1. Prof. Henning Bjornlund, University of South Australia will introduce the sessions and provide a brief overview and summary of the ACIAR project.
2. Prof Jamie Pittock, Australian National University will present the paper 'Rebooting failing irrigation systems'
3. Dr. Makarius Mdemu from Ardhi University, Tanzania will present the paper 'The impact of innovations in soil moisture-nutrient monitoring and agricultural innovation platforms on food security and income of farmers in smallholder irrigation schemes in Tanzania.
4. Dr. Martin Moyo, from ICRISAT, Zimbabwe will present the paper 'The dynamics between irrigation frequency and soil nutrient management: transitioning small scale irrigation towards more sustainable systems in Zimbabwe'

5. Ms. Felicidade Jorge, PhD Student, Bonn University and past Deputy Director of The National Irrigation Institute in Mozambique will present the paper ‘Do Agricultural Innovation Platforms and soil moisture and nutrient monitoring tools improve the production and livelihood of smallholder irrigators in Mozambique?’

6. Dr. Andre van Rooyen, Principal Scientist, the International Crops Research Institute for the Semi-Arid Tropics (ICRISAT), Zimbabwe will present the paper ‘Identifying leverage points to transition dysfunctional irrigation schemes towards complex adaptive systems’

7. Prof. Henning Bjornlund, University of South Australia will present the paper ‘The importance of learning processes in transitioning small-scale irrigation schemes towards complex adaptive systems.’

8. Ms. Karen Parry, PhD Candidate, University of South Australia will present the paper ‘Youth and Small-scale Irrigation Schemes – opportunities and challenges’

9. Dr. Ana Manero, Australian National University will present the paper ‘Growth and inequality at the micro scale: an empirical analysis of farm incomes within smallholder irrigation systems in Zimbabwe, Tanzania and Mozambique’

Three respondents discuss the papers and their policy implications with expertise within this area will be recruited among delegates to the Congress.:

2) Objectives

The sessions will communicate lessons from an ACIAR funded project on enhancing irrigation productivity and improving profitability for small-holder farmers, in Mozambique, Tanzania and Zimbabwe. It will be an official launch of a second special issue of the International Journal of Water Resources Development communicating the key findings from the first four years of the project. The first special issue was launched at the WWC in Cancun during two special sessions

3) Justifications

Agriculture accounts for 70% of water use globally and has facilitated much of the increase in food production in the past and is critical for future food security and the alleviation of poverty. However, in developing countries many irrigation systems do not perform to their full potential; they are facing a number of challenges including infrastructural decay, poor water and nutrient practices, lack of technical and institutional expertise, inefficient support systems, and poor market integration. This session will focus on some of these challenges.

4) Projected outcomes

The expected outcomes include:

- Country level - the presenters will return to their countries with a unique insight and feedback from a global audience potentially impacting further agricultural research;
- Lessons sharing - the WWC provides an opportunity to engage with and share lessons with others working in similar fields of development research. This is an important outcome as the project is two years into its second four-year term on out-scaling and upscaling the approaches, learnings and outcomes

communicated in these presentations;

- Publication – the full paper version of the presentations will be published in the international journal of Water Resources Development; and
- Policy impact, the key lessons will be communicated to policy makers in Africa through FANRAPA

5) Alignment with Congress

The papers and the structure of these sessions has close resilience and water security linkages:

- 1) Improving water productivity and profitability in small scale irrigation in developing countries will significantly improve the resilience of small-scale irrigators both in the face of climate and market changes.
- 2) Improving water efficiency and productivity has significant water security implications as reduced water use in the small-scale irrigation sector can release new water to supply other users or to increase the area under irrigation and thereby increase food production. Both of these capacities will improve water security.