



Data-driven improvement of water use efficiency in small-scale irrigation

International Conference and 69th International Executive Council
Meeting of the International Commission on Irrigation and Drainage

Wednesday 15 August | Teachers Credit Union Place | Saskatoon



Summary and objectives

The side event aims at introducing data-driven improvement of water use efficiency and crop productivity through the experiences and lessons learnt from working on Agricultural Water Management in West Africa and East Africa. The objectives of this event are:

- To underpin the importance of water data acquisition in agricultural water use demonstrating the adverse effects of data gaps;
- To recommend methods and technologies for establishing datasets and converting them into management rules;
- To discuss the strengths and weaknesses of approaches and methodologies to improve water use efficiency and crop water productivity and their scaling-out;
- To share lessons learnt in the agricultural water management from the results of real case studies in Africa

Organizers

Food and Agriculture Organization of the UN (FAO), The Partnership for Agricultural Water for Africa (AgWA); CIHEAM Bari, USDA Agricultural Research Service, NARO (Uganda), AMVS (Burkina Faso), INERA (Burkina Faso)

Agenda

Time Presentation

1st Session: Diagnosis and Challenges of Agricultural Water Management in smallholders' traditional irrigation systems in Africa

- 14.00-14.30** Introducing the diagnostic approaches of assessing Agricultural Water Management in small-scale irrigation schemes in Africa:
- Trends and Outlook: The current state of smallholders' Agricultural Water Management in Africa: the consequences of low water use efficiency and water productivity in food insecure developing countries – **Maher Salman**, CBL, FAO
 - Measurement, Interpretation and Use of Water Productivity Data – **Thomas Trout**, USDA Agricultural Research Service, Fort Collins
 - Insight into the AquaCrop and MASSCOTTE approach and its application to improve Agricultural Water Management in small-scale traditional irrigation schemes in Africa – **Fethi Lebdi**, AgWA
- 14.30-14.50** Identified factors preventing farmers and scheme management from increasing their water use efficiency in Africa: Results of applied methodologies in Burkina Faso and Uganda – **Serme Idriss**, INERA (Burkina Faso) and **Charles Mutumba**, NARO (Uganda)
- 14.50-15.00** Questions and Answers

2nd Session: Improving water-efficient irrigation: Prospects and difficulties of innovative technologies and practices in agricultural water management

- 15.15- 15.40** Traditional and non-traditional technologies to address water data gaps in small-scale irrigation in Africa
- Measurement technologies and data acquisition to establish discharge history in traditional irrigation schemes in Burkina Faso and Uganda - **Abdelouahid Fouial**, CIHEAM Bari & **Eva Pek**, CBL, FAO
 - Critical assessment and addressed challenges in deploying innovative technologies in small-scale irrigation scheme in Uganda - **Abdelouahid Fouial**, CIHEAM Bari & **Eva Pek**, CBL, FAO
- 15.40- 16.20** Interpreting water use data into management rules to improve Agricultural Water Management through increasing water use efficiency
- Flexible Water Service approach for maximizing benefits through optimal water use – **Fethi Lebdi**, AgWA
 - Expected outcomes of Flexible Water Service approach: increasing farm profitability and water save through Flexible Water Service: case studies of Burkina Faso and Uganda – **Emmanuel Compaore** (Burkina Faso) and **Charles Mutumba** (Uganda)
- 16.20- 16.35** Encouraging small-scale farmers to embrace participatory water-management for applying technology and new irrigation methods – **Maher Salman**, CBL, FAO

Discussion and Conclusions

- 16.35- 16.50** Panel discussion on role of technologies and data in agricultural water management in rural Africa
- 16.50- 17.00** Conclusions and future prospects of developing water management in Africa