



AGRICULTURE AND AGRIBUSINESS

Irrigation Scheme Operation and Water User Associations

3 day course

Classroom, online or in-house

Course overview

Smallholder irrigation schemes are built with capital and then operated with none, so the canal that was constructed to a design silts up, the tail end farmers stop receiving water and the scheme is judged a failure by people who only funded the construction. This course addresses the operating years. Delegates work through scheme layout and the conveyance losses that determine how much water reaches the field. Water allocation follows, including rotational delivery, warabandi style scheduling and the tail end problem that decides whether a scheme is trusted. Structures are covered: offtakes, division boxes, measuring flumes and the calibration that makes an allocation enforceable. Canal maintenance, desilting and weed control are addressed with the labour and cost each requires. Water user associations are covered as the institution that must collect fees, resolve disputes and organise maintenance, along with the reasons they commonly collapse. Fee setting and financial management follow. Conflict resolution is addressed directly. The course closes on rehabilitation, on monitoring performance and on scheme sustainability.

What you will learn

- Quantify conveyance losses across a scheme
- Allocate water by rotation and address the tail end problem
- Operate offtakes, division boxes and calibrated measuring structures
- Plan canal maintenance, desilting and weed control with real costs
- Establish a water user association that can collect and maintain
- Set fees and manage scheme finances
- Resolve disputes, monitor performance and plan rehabilitation

Who should attend

- Irrigation scheme managers and operators
- Water user association committee members
- Extension and community development officers
- Government irrigation department staff
- Programme staff funding irrigation rehabilitation

Course outline

- 01 Built with capital, operated with none
- 02 Scheme layout and conveyance losses
- 03 Rotational allocation and the tail end problem
- 04 Offtakes, division boxes and measuring flumes
- 05 Calibration and enforceable allocation
- 06 Canal maintenance, desilting and weed control
- 07 Water user associations and why they collapse
- 08 Fee setting, disputes, monitoring and rehabilitation

Upcoming dates



Dates	Venue	Format	Fee per delegate
30 September to 2 October 2026	Johannesburg, South Africa	Classroom	R14,950
28 to 30 December 2026	Maputo, Mozambique	Classroom	USD 995
25 to 27 January 2027	Online	Online	R6,500
24 to 26 March 2027	Dar es Salaam, Tanzania	Classroom	USD 995

Fees and how to register

This 3 day course is **R6,500** per delegate online, **R14,950** in the classroom in South Africa, Botswana, Namibia, Lesotho and Eswatini, and **USD 995** in the classroom elsewhere in Africa. In-house training is quotation on request. Book 2 or more delegates on this course and save 10%.

To register or request an in-house proposal, visit www.afrisciencegroup.com, email info@afriScience.co.za, or WhatsApp us on **+27 63 479 1136**.

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