

Call for abstracts / full papers

Water and agricultural resilience in the face of climate change 27th International Congress on Irrigation and Drainage of ICID 12 to 17 October 2026, Marseille France

The International Commission on Irrigation and Drainage (ICID) was established on 24 June 1950 in New Delhi, India. ICID is a leading scientific, technical, and professional international not-for-profit network of experts from the fields of irrigation, drainage, and flood management working together with the mission of Sustainable Agriculture Water Management.

ICID is a knowledge-sharing platform dedicated to issues related to the entire spectrum of agricultural water management practices, ranging from rain-fed agriculture to supplemental irrigation, land drainage, deficit irrigation, to full irrigation, etc. In addition, drainage of agricultural lands forms the core theme of our activities. Floods and drought, the two extremes of an increasingly variable climate as a result of potential climate change, also form the focus of activities. [For more details, log on to <https://icid-ciid.org>]

ICID has been organizing its flagship triennial event, the *International Congress on Irrigation and Drainage*, since 1951. The first ICID Congress was held in 1951 in Delhi, and to date, ICID has convened 25 triennial congresses.

The 26th *International Congress on Irrigation and Drainage* and the 77th *International Executive Council Meeting* will be organized by the French National Committee of ICID (Eau, Agriculture et Territoires, E.A.T.) under the theme "*Water and Agricultural Resilience in the Face of Climate Change*" from 12 to 17 October 2026, in Marseille, France.

The Congress aims to provide a platform for irrigation and drainage professionals and a broad range of other stakeholders to share their knowledge and experience in sustainable agriculture water management, focusing on irrigation management and its related/integrated aspects.

CONGRESS THEME: Water and agricultural resilience in the face of climate change

Under the theme "Water and agricultural resilience in the face of climate change," the congress will bring together stakeholders from across the globe – researchers, engineers, institutions, public decision-makers, NGOs, and civil society representatives – to share knowledge, innovations, and experiences on the core challenges of irrigation and drainage.

These topics have never been more relevant. Irrigated agriculture, which covers only 20% of cultivated land, produces nearly 40% of the world's food while accounting for 70% of global water consumption. In a world facing population growth, resource scarcity, soil degradation, and extreme climate events, managing water effectively has become a key condition for agricultural resilience.

This congress is resolutely action-oriented. It will offer a moment to assess and discuss available levers: technological innovations (such as smart irrigation systems, remote sensing, high-efficiency equipment), agroecological practices, public policies, wastewater reuse, and new forms of international cooperation — all essential tools to support the transition towards efficient and sustainable agricultural systems.

The choice of Marseille as host city is a meaningful one. As a Mediterranean city at the crossroads of cultures and climate issues, it embodies both the tensions and opportunities of water management in constrained environments. With its dynamic research ecosystem and strong commitment to sustainability, Marseille also provides fertile ground for dialogue and innovation.

CONGRESS QUESTIONS

Question 66: In the face of climate change, how can irrigation and drainage contribute to the agro-ecological transition?

Irrigation and drainage are recognized as important for food security and adaptation to climate variability, but they are associated with approaches to agricultural intensification that are being questioned for environmental, health, and social reasons. The objective of this session is to explore ways of making irrigation and drainage compatible with agroecology—a holistic, multi-scale, multi-stakeholder approach to agriculture based on ecological principles—without compromising their role in food security.

This session aims to bring together contributions to illustrate or question the different ways in which irrigation and/or drainage, on the one hand, and agroecology, on the other, can coexist and even enrich each other. A first series of contributions could focus on understanding and modelling biophysical processes at the plot, landscape, and watershed levels when irrigation and/or drainage are introduced in an agroecological system, or conversely, when agroecological principles influence irrigation and drainage practices. Another type of contributions could focus on the technical, social, psychological, economic and policy dimensions of an agroecological transition at the level of farms, watersheds, value chains or food systems, with, for example, investigation into the role of infrastructures, economic and policy incentives, training and awareness campaigns, institutions and power relations, etc. We welcome all disciplines and formats: case studies, lessons learned, and more conceptual analyses.

Sub-questions

Q. 66.1:

At the plot, landscape, and watershed scales, what processes are involved in the interaction between irrigation/drainage and agroecology, and how might we model them?

Q. 66.2:

At the farm, territorial, sectoral, and food system levels, what are the characteristics of irrigated/drained agroecological systems and the methods for supporting the agroecological transition of irrigated/drained systems?

Question 67: Innovative technology and practices for increasing water use efficiency. Irrigation management and services, remote sensing, irrigation equipment.... where do we stand?

In a context of increasing water scarcity and climate uncertainty, improving water use efficiency in agriculture has become both a necessity and an opportunity. Technological innovations—ranging from irrigation scheduling tools to smart equipment and remote sensing—offer promising pathways to optimize irrigation and reduce water consumption.

Today, a wide array of irrigation practices and scheduling strategies are available to help farmers apply the right amount of water, at the right time, and in the right place. These include precision irrigation, deficit irrigation, and smart irrigation systems that integrate soil, crop, and weather data to guide decisions.

Remote sensing technologies—using satellite, optical, thermal, and radar imagery—are increasingly accessible and can support real-time irrigation management at the field or territorial scale. When combined with in situ sensors and crop models, they help monitor plant stress, soil moisture, and evapotranspiration dynamics with greater accuracy.

Modelling also plays a key role in designing irrigation strategies, projecting water demand under different scenarios, and assessing the trade-offs between robustness and performance. These tools are essential for improving forecasting, decision support, and risk management in water-limited conditions.

Yet, beyond technology, the uptake of these innovations depends on effective governance frameworks. Water pricing and policy instruments must align with sustainability goals to encourage the adoption of efficient irrigation systems and discourage wasteful practices.

Sub-questions

Q. 67.1:

Irrigation practices and technologies at the plot and farm levels reflect individual skills, objectives, decisions, and philosophies. How can these be evaluated and improved?

Q. 67.2:

At the territorial scale, irrigation water management is jointly influenced by agricultural, economic, environmental, and regulatory drivers. How can the decision-making process be explained and improved?

Question 68: Non-conventional water (REUSE, desalination): can we really loosen the grip on the resource and for what uses?

Water scarcity constitutes one of the most pressing challenges of the 21st century. Intensifying pressures on freshwater resources—driven by climate change, demographic expansion, and rising food demand—underscore the necessity of exploring non-conventional water sources, including wastewater reuse and desalination, as central components of water management strategies, particularly in arid and semi-arid regions such as the Mediterranean.

Globally, agriculture remains the dominant water-consuming sector, with an estimated annual withdrawal of 11,200 billion m³. This demand encompasses approximately 2,000 billion m³ of blue water (surface and groundwater), 8,400 billion m³ of green water (rainwater), and 800 billion m³ of grey water (polluted return flows from agricultural activities). In regions characterized by acute water stress, notably the Mediterranean basin, enhancing water-use efficiency and diversifying water supply sources, with non conventional resources, represent critical measures to ensure long-term sustainability. Within these issues, human, social and economic considerations continue to represent a critical determinant.

The reuse of a treated wastewater represents a viable strategy to reduce pressure on conventional freshwater resources while fostering the principles of a circular economy. Such reclaimed water can be applied in agricultural irrigation, aquifer recharge, as well as in industrial and urban applications. Similarly, desalination constitutes an important non-conventional water supply option, particularly in coastal regions; however, its deployment requires careful evaluation due to its significant energy requirements and potential environmental and public health impacts.

Sub-questions

Q. 68.1:

In the context of watereuse (REUSE), how can integrated, interdisciplinary, and territorial approaches contribute to overcoming sociological, economic, and regulatory obstacles?

Q. 68.2:

How can a desalination strategy be designed and developed to specifically meet agricultural needs, both in quantitative and qualitative terms?

SUBMISSION GUIDELINES

Keydates to remember:

- Opening of the submission platform: **15 November 2025**
- Abstract submission deadline: **15 February 2026, 23:59 (Central European Time)**.
- Abstract notification of acceptance: **28 February 2026**
- Full-Length paper submission deadline (for accepted abstracts): **31 May 2026**
- Presenters' registration deadline-Earlybird (with full payment): **31 May 2026**
- Notification of presentations' format and schedule: July 2026

Submission Process:

- All submissions must be made online through the official portal (link available in 15 November 2025)
- Abstract submissions by email will not be accepted.
- Abstract submission deadline: 15 February 2026, 23:59 (Central European Time)

Submission Rules:

- Submissions must be written in English.
- **Abstract topic** : please select the [sub-question](#) (66.1 to 68.2) that best corresponds to the topic for your abstract:

Q.66	In the face of climate change, how can irrigation and drainage contribute to agro-ecological transition?
Q.66.1	At the plot, landscape, and watershed scales, what processes are involved in the interaction between irrigation/drainage and agroecology, and how might we model them?
Q.66.2	At the farm, territorial, sectoral, and food system levels, what are the characteristics of irrigated/drained agroecological systems and the methods for supporting the agroecological transition of irrigated/drained systems?
Q.67	Innovative technology and practices for increasing water use efficiency. Irrigation management and services, remote sensing, irrigation equipment,...where do we stand ?
Q.67.1	At the plot scale and the farm scale, the implementation, monitoring and improvement of irrigation practices and technologies reflect individual objectives, decisions, positions and philosophies. How to evaluate them and feed them with data collection and modelling approaches so as to better cope with increasing external, contextual constraints that mostly emanate from larger scales?
Q.67.2	At the territorial scale of hydrological resources, hydraulic infrastructures and composite agricultural landscapes, water management for irrigation is jointly framed by public policies, use conflicts, economic drivers, the overall impact of local uptakes, and a certain idea of the common good. How could all components of the decision-making process be better documented, questioned and improved?
Q.68	Non-conventional water (REUSE, desalination): can we really loosen the grip on the resource and for what uses?
Q.68.1	In the context of watereuse (REUSE), how can integrated, interdisciplinary, and territorial approaches contribute to overcoming sociological, economic, and regulatory obstacles?
Q.68.2	How can a desalination strategy be designed and developed to specifically meet agricultural needs, both in quantitative and qualitative terms?

- **Abstract length:**
 - o Title: maximum 25 words
 - o Abstract body: minimum 500 words, maximum 600 words (excluding title and author information)

- **References (optional):**
 - o The References should be arranged in alphabetical order according to surname
 - o The arrangement in an individual reference should be as under: Name(s) of author(s), Year of issue, Title of publication or article, Name of Periodical or publisher, volume number, issue number, page numbers, language (if other than that of the paper).
Example: Broner, I. and R.R.P. Law. 1992. Water balance for irrigation using ET input. ICID Bull. 41(2): 173-182.
- **Preferred Presentation format:**
 - o Abstracts may be submitted for oral or poster presentation.
 - o Scientific Committee will determine the final format.
 - o There will be a Best Poster Award.

NEW in 2026! The International Commission on Irrigation and Drainage invites submissions for the Best Poster Award.

To promote scientific communication and recognize outstanding contributions, the ICID Congress 2026 is pleased to announce the creation of the Poster Award. This prize aims to encourage the submission of high-quality posters and to highlight innovative research, technical expertise, and impactful projects in irrigation and drainage. Posters will be evaluated by a dedicated jury during the congress.

- **Submission limitations:**
Multiple submissions are allowed; however, the Organizing Committee recommends one or two abstract submissions per first author/presenter, in order to ensure the widest possible representation of authors.

By submitting an abstract, authors confirm that:

- All authors approve the content of the abstract.
- The accuracy of all information has been verified.
- The presenter's registration will be fully paid by 31 May 2026, and the presenter commits to an in-person presentation in Marseille. Remote or pre-recorded presentations will not be accepted.
- The presentation will be delivered in English.
- The abstract has not been published previously.
- Permission for publication of the abstract is granted to the organizers.
- Consent is given for publication of the abstract without editing.
- The final presentation format will be determined by the Scientific Committee.

Abstract Review

All abstracts will undergo a rigorous review by the ICID Scientific Committee.

Full-length paper submission

Authors whose abstracts are accepted **commit to submitting a full-length paper (maximum 4,000 words) by 31 May 2026**. All full-length paper will undergo a rigorous review by the ICID Scientific Committee.

The paper will be published in the Congress proceedings and made available to participants in digital format during the congress.

Following the congress, selected papers will be published in two special issues of the ICID Journal "Irrigation and Drainage".

Contact Information

For any enquiries regarding abstract submissions, please contact the scientific secretariat:
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