International Commission on Irrigation and Drainage (ICID) in collaboration with the National Water Academy of India and two international industry leaders - Jain Irrigation Systems Limited and Netafim Irrigation - and academies such as Aqua Foundation Academy and National Water Academy of India. Due to the on-going COVID-19 restrictions on international travel and face-to-face events, online platforms are becoming meeting places and a new normal, and I am sure you will also notice this in the various stories in this issue of ICID News Update.

Other major events that ICID was involved in include the African Young Water Professionals’ Training and Cairo Water Week. ICID President and myself among many others from ICID Network participated as resource persons and keynote speakers. We also participated as knowledge partner in World Aqua Congress where I highlighted various burning issues of our sector and ICID’s strategy to develop partnerships for overcoming the prevalent challenges.

Though we had to postpone our planned international conference and the International Executive Committee (IEC) meeting of 2020 in Sydney-Australia, we did manage to organize a technical webinar in collaboration with Irrigation Australia, one of our very active national committees. Let’s hope we will be able to conduct these next year. Similarly, our African Regional Conference at Morocco had to be rescheduled and we are waiting for the final word on this from our Morocco National Committee.

We are also launching INSPIRE a global forum for Irrigation service managers in collaboration with the World Bank and other international institutions. We will be happy to invite all the irrigation managers and operators for joining in the activities of the forum and share and gain knowledge on this vital aspect.

ICID is now gearing up for its first ever virtual International Executive Committee meeting which was supposed to first take place in Australia and then in Morocco, but again COVID-19 had different plans. Anyway, let’s try this new online approach and learn from this unique experience.

Wishing you all a safe end of the year festive season!

Ashwin Pandya
Secretary General, ICID

From Secretary General’s Desk...

Dear Colleagues,

I am pleased to share with you all that this month ICID has kickstarted two online courses – one on Micro-Irrigation Systems and the other on Dam Safety through inaugural webinars. These courses have given us an opportunity to rope in the international industry giants working on irrigation technologies of future – Jain Irrigation Systems Limited and Netafim Irrigation and academies such as Aqua Foundation Academy and National Water Academy of India. Due to the on-going COVID-19 restrictions on international travel and face-to-face

International Commission on Irrigation and Drainage (ICID) in collaboration with the National Water Academy of India and two international industry leaders - Jain Irrigation Systems Limited and Netafim Irrigation Private Limited is organizing an online certificate course on Micro-Irrigation systems. The inauguration and the global launch of the course were conducted virtually through a technical webinar on 7th October 2020. President Felix Reinders, Secretary General A.B. Pandya, and Indian National Committee’s (INCID) Chairman Eng. R K Jain presented during the webinar. Other faculty members from participating partner organizations also presented their views. The discussions covered almost all aspects of micro-irrigation from international, national, and regional perspectives while briefly introducing the course outline. The latter half of the webinar witnessed enthusiastic participation from the audience with multiple questions asked from the reverent panelists.

The session began with welcome remarks provided by Secretary-General Eng. A.B. Pandya. He thanked the partner organizations, participating students, and the faculty members whose support and expertise contributed towards the development of the course.

The first presentation was provided by Eng. R K Jain, Chairman, INCID, and Central Water Commission, India. He gave a succinct introduction to India’s existing problem of water scarcity and the issue of declining irrigation water use efficiency. He advocated that Micro-Irrigation is an important tool to improvise the irrigation landscape in the country. He quoted the recommendations of the Government of India (GoI) established Taskforce, to identify the cavets in the sector and provided suggestions to grow the irrigation efficiency using an incentive-based strategy for a wider implementation among the farmer community. He informed the audience about various GoI schemes like Per crop more Drop implemented to promote micro-irrigation by providing subsidies to the framers from the central government. He highlighted that out of the potential 70 Mha of micro-irrigation only about 15 Mha is achieved. Two major reasons behind this gap are Lack of financial resources and Inadequate knowledge and awareness among the community and the local bodies. Towards the end, Mr. Jain appreciated ICID’s efforts and initiatives to mobilize the cause (micro-irrigation) and its advantages not just in India but worldwide. He said that
this Online Micro-Irrigation course will contribute to capacity building, awareness creation, and knowledge dissemination which is very pertinent to development.

The second presentation was provided by Mr. H K Haldar from Central Water Commission. He stressed that the increasing demands and limited supply of utilisable water are creating an inefficient balance within the country. He stated that India is home to one-sixth of the world’s population and has access to only one-fourth of the water which is required for all the sectors along with everyday uses of our growing population. It is predicted that by 2050, utilisable water will not match the increasing water demands. The irrigation sector is the largest consumer of freshwater; therefore, irrigation systems need to be more efficient at least matching with the world’s average of 60-70%. Currently, the irrigation efficiency of the country stands at 20%, there is tremendous potential for development. The micro-irrigation potential created in 2019 was 11.5 Mha with financial support for the adoption of micro-irrigation in the farms from the government. He informed the attendees about GoI’s new initiative aimed at developing the Micro-Irrigation industry and increase an additional cover of 11 Mha along with the efficient use of fertilizers.

President Felix Reinders gave the keynote address and the third presentation on Modern irrigation systems; divided into five parts it covered, the origin of irrigation practices, international developments, smart irrigation, and the future of micro-irrigation.

President Felix presented the opening remarks and congratulated all the members on the program launch and briefly explained the objectives of the upcoming Online Certificate Course on Micro-Irrigation. He shared with the audience that the course has received more than 150 registrations so far from all over the world. In the beginning, he talked about ICID and its vision to promote sustainable agricultural water management towards achieving a water-secure world while reducing poverty. He discussed ICID’s global network and its activities in the direction of modernizing irrigation and the drainage industry.

President Felix said that, if predictions are to be believed by 2030 two-thirds of the world’s population will be adversely affected by water scarcity, therefore, establishing the importance of efficient water utilization in all the sectors is extremely important. He showcased the decreasing water levels globally from the 1960s to 2050 putting the current generation in a challenging situation.

He further explained how the concurrent water security challenge puts in question global food security. The global irrigation landscape over the years has changed drastically however, still, 80% of the world’s irrigation that adds up to 1233 Mha is dependent on Rainfed Agriculture. The rest 20% of the irrigation is dominated by Irrigated Agriculture which in total is 300 Mha and is responsible for 50% of global food production. China and India stand out as the major players of irrigated agriculture especially in the production of food grains. He also highlighted that only 18 Mha are covered globally under micro-irrigation.

He traced the journey of agriculture to modernization leading to micro-irrigation as a growing market in terms of climate-smart agriculture and expected increased efficiency. He explained to the audience the purpose, history, and development over the years in the field of irrigation technology. He showed the First Impact sprinkler developed in California in 1933 and talked about the development of Micro-Irrigation in the world in the last thirty-nine years, from 1981 to 2020 and 18 Mha today. Talking about smart agriculture, he talked about the current age of digitization in irrigation with computer-controlled data systems, advanced information mechanisms to increase food production and water productivity in terms of per cubic meter water produced. He also mentioned about the combined use of different technologies (Micro-Drip-Sprinkler) used to gauge and apply sufficient amount of water at the appropriate time for the optimum growth of the crop. Mobile-drip irrigation (started in 2009) is a combination of minimized drip irrigation with drip tubes and center pivots which offers customized requirements of the respective crop, an exemplary smart irrigation technique. In conclusion, he stated that the relevance of innovation, technology and new developments cannot be undermined. Water is the key to food security, not just for primary production but for a sustainable system. What we need the most is to be water-smart. He ended by saying “Using the knowledge which we will learn in the incoming three months will lead us to the gateway to success, Best wishes to the students, faculty members and the knowledge partners of the Online course.”

Mr. Ashok Kharya, Chief Engineer, National Water Academy (NWA), Central Water Commission, Pune (Maharashtra), presented the fourth presentation of the session. He is the one whose inspiration and motivation led to the inception, execution, and finally the organization of this course. Eng. Kharya congratulated and greeted everyone, and gave an introduction to National Water Academy, its aims and mandate of training and capacity building and its other activities. From his years of experience, he shared how the government of India has been focusing on the issue of water use efficiency and increasing micro-irrigation systems which will benefit water productivity. He thanked all the members and the knowledge partners-Jain Irrigation, Netafim, NWA and ICID.

Dr. P Soman, Chief Economist, Jain Irrigation, the fifth speaker congratulated all the members and presented his best wishes for the successful execution of the certificate course. He gave a brief introduction about the emergence of micro-irrigation in India and the world, how its understanding and concept changed over the years; From the stage of considering drip as a foreign concept to a fundamental tool to increase water efficiency. The reason behind this development was the awareness and information dissemination among the community, farmers and the local administration who demanded drip-irrigation on their farms. This involved years of work in training, capacity development and awareness creation.

He ended his presentation by saying that this course is a first of its kind and a great opportunity presenting an Indian account of the micro-irrigation industry.

The final speaker of the session Mr. Ramdas Battalwar, Business Head, Netafim India briefly talked about the changing phase of micro-irrigation and agriculture landscape in India, with new and big projects under Command Development Authority (CADA) with an increased focus on smart agriculture, technological advancements, and micro-irrigation. He explained Netafim’s contribution in the course and shed some light on course content under Command Resource Development, Digitization, and Implementation of large scale projects which he will be covering. He stated that ICID will have full support from Netafim and other members towards the successful execution of the course.

SG Pandya concluded with a brief introduction to the course and did a moodle demonstration for all the viewers. All relevant elements of the course were covered (topic, sub-topics, webinars, live participation, registrations, assessments and lecture structure, etc.) After answering a few questions, the webinar ended with a vote of thanks by Secretary-General A B Pandya. The webinar witnessed over 500 registrations worldwide.
To address the various issues related to agricultural water management specific to Africa, ICID established the African Regional Working Group (AFRWG) in 2000 with the objective of promoting strong communications and networking among the African countries as well as regional and international institutions for enhancing cooperation and coordination and to support integrated river basin development, training and research issues and information systems for African needs. This led to the establishment of the African Young Water Professionals Forum (AF-YWPF). Building on the success of two previous forums (in 2018 and 2019), the 3rd AF-YWPF was organized from 19-21 October 2020 (Online) under the platform of Cairo Water Week (CWW) 2020. The three-day closed event brought together 61 Young Professionals from across Africa who participated in the forum meeting, training workshop, and other activities in convergence with the Cairo Water Week to allow Young Professionals to engage with experts and stakeholders in the water sector through interactive sessions, hands-on training workshops as well as seminars/sessions. Organized on the theme of “Water Security in Arid Regions: the Road to Dakar 2021” the forum was supported by the United Nations Economic Commission for Western Asia (ESCWA), Arab Center for the Studies of Arid Zones and Dry Lands (ACSAD), Regional Initiative for the Assessment of Climate Change Impacts on Water Resources and Socio-Economic Vulnerability in the Arab Region (RICCAR), Global Water Partnership – Mediterranean (GWP-Med) and Islamic Development Bank (IsDB). ICID and its office bearers participated and supported the forum in all possible capacities.

President Felix Reinders and Secretary-General A B Pandya presented in the opening session and informed the audience about ICID, its mission, vision, and the development of the African Young Water Professionals Forum (AF-YWPF) over the years. While discussing Africa’s geographical and climatic conditions, the President emphasized the importance of collaboration among stakeholders to achieve efficiency. Secretary-General congratulated all the organizing members and thanked everyone for their support in the successful execution of the forum amid the COVID-19-caused uncertainties. He discussed ICID’s initiatives in capacity building and shared about the origin of the forum. The African Young Water Professionals Forum (AF-YWPF) was the outcome of a decision taken during the 28th meeting of the African Regional Working Group (AFRWG) held in Mexico City, Mexico, in October 2017, where it was decided to establish the African Young Water Professionals Forum (AF-YWPF). He discussed the urgent need to educate, inform, and motivate the African Youth towards efficient farming systems.

The Executive Director, ICID, Eng. Harish K Varma as a keynote speaker in the closing session spoke on “Water Security from a Global Perspective” with a special focus on arid regions. He began by tracing the growing global imbalance between water available and water demanded leading to increased competition and scarcity especially in developing countries. Two-thirds of the world’s population currently live in areas that experience water scarcity for at least one month a year. He also talked about WASAG’s mission to support measurable, significant, and sustainable progress on adapting agricultural systems facing water scarcity and climate change.

Ms. Prachi Sharma, Knowledge Officer, ICID presented her views on Gender issues in agricultural water management during the fifth Training Session. She discussed, how women make essential contributions to the agricultural economy of all countries contributing to 43% of the global agricultural labour force. However, Lack of gender inclusivity has contributed to the underperformance of the sector with inbuild gender biases and patterns which often vary based on the prevalent social, religious, cultural, political and economic factors in the region. While establishing the important role played by women in water management as the primary managers of water-related chores, she highlighted their upliftment is necessary for food security. Under-representation in decision making, limited access to information, and awareness and lack of ownership on assets were identified as the major hindrances. Moving forward, gender balance needs to be neutralized using institutionalized policy measures and financial support. Women-enabling ecosystems should be developed and generating more and more women entrepreneurs is the need of the hour.

Having attracted more than 2800 members, the African Young Water Professionals Forum (AF-YWPF) has become an important platform on the African continent for the capacity development of future leaders in water-related sectors. Outside training programs, workshops and conferences, the forum exists an e-Forum (AF-YWPeF) on LinkedIn (https://www.linkedin.com/groups/12143964) to keep active engagement of members and to facilitate knowledge sharing.
ICID participates in XIV World Aqua Congress: Aqua Foundation’s International Conference and Exhibition

ICID’s long associated organization Aqua Foundation organized its annual international conference virtually on the theme of “Water and Climate Change” on 29th October 2020 and 30th October 2020. ICID supported the event in the capacity of a Knowledge Partner and Associate. This year’s theme, “Water and Climate Change,” highlights the urgent importance of strengthening water security and establishing access to a sustainable water supply in the face of changing climate conditions worldwide. From last many years WAC has emerged as the most consistent and comprehensive event addressing issues of water and environment and having a considerable impact on policymaking.

Secretary-General A B Pandya represented ICID and participated in the congress in various capacities. As a keynote speaker during the First Plenary session, he presented his views on “Global Water Crisis-Agriculture and Food Security in the Era of Climate Change”. He delved into the multi-disciplinary nature of water both in terms of its utility and distribution in nature and how climate change disturbs the entire water balance. Tracing the Global Water Resources Consumption patterns, he established the impending danger of food security with declining water availability. In the second half of his presentation, he emphasized on the interplay of Water Security, Food Security and Sustainable Development. He said, “Due to changing demographics, development scenario, limiting natural resources, and ecological sustainability, the focus should move to a holistic approach from source to deployment for sustainable development”. He also talked about the seven SDGs directly related to agricultural water management and the urgent need to pursue them. He mentioned about ICID, its mission, and vision of a poverty-free world achieved through sustainable rural development. He concluded by professing on adaptation strategies to fight Climate Change following a collaborative approach through alliances and partnerships among all the relevant stakeholders.

As session chair SG Pandya conducted one of the technical sessions covering multifarious issues like Impact of Climate Change on Water Resources in India, Building Climate Change Resilient Tribal Communities through Water Management and Ecosystems, Global Warming, Climate Change and Water Resources, Ferrocement Technologies: Helping in Villages Transformation in Hilly/Undulating Terrain in India and Climate Change Impact at Local Level-Uncertainty of Rainfall Events in Future presented by senior academicians, bureaucrats and corporate members. Complete details of present and past events are available on the event website www.worldaquacongress.org.

Secretary-General Eng. Ashwin B. Pandya represented ICID in the second webinar of the series conducted on 14th October 2020 from 12.00 to 13.30 CET.

The webinar aimed to inform the participants about the objectives and activities on water-related cultural heritage by international water organizations including the World Water Heritage Systems programme by ICID, the Specialist Group for Water and Wastewater in Ancient Civilizations, The Ramsar Culture Network, the Global Water Museums Network, the Global Water Partnership (GWP), and the International Centre for Transdisciplinary Water Research.

During his presentation, SG Pandya talked about ICID’s initiatives in Water and Heritage. First, Water and Heritage Irrigation Structure (WHIS) and ICID Register of World Heritage Irrigation Structures. On the lines of World Heritage Sites as recognized by UNESCO, ICID annually recognizes historical irrigation and/or drainage structures fulfilling the criterion laid down from all over the world. Recognized structures are presented with a plaque and consequently added to the “ICID World List of Heritage Irrigation Structures”.

Second is the World Water Systems Heritage (WSH) Programme and the Register of WSH. Combining different

ICOMOS, an international network of experts works for the conservation and protection of cultural heritage places. It is the only global non-government organization of this kind, which is dedicated to promoting the application of theory, methodology, and scientific techniques to the conservation of the architectural and archaeological heritage. ICOMOS contributes to improving the preservation of heritage, the standards and the techniques for each type of cultural heritage property: buildings, historic cities, cultural landscapes and archaeological sites. ICID and ICOMOS have collaborated for many webinars, activities and events in the past, including the “Water and Heritage” side session in India Water Week 2019 held in New Delhi, India. The two organizations also worked closely on the cause of rain-water harvesting.

Recently, ICID participated in the ICOMOS webinar series on “Cultural Heritage Solutions for Water Challenges”.

SECRETARY-GENERAL PRESENTS A WEBINAR ON CULTURAL HERITAGE SOLUTIONS FOR WATER CHALLENGES
global heritage concepts and filling the gap to recognize successful multi-stakeholder water management institutions and practices which have contributed to for generations with immense knowledge and wisdom and are worth protecting and preserving as heritage are recognised. Several ICID publications dedicated to the cause of Water and Heritage were also discussed like Historical Dams, Danube Valley, Irrigation History of Indonesia and the upcoming book on World Heritage Irrigation Structures. The webinar concluded on an affirmative note with a discussion on future collaboration among the two organizations. For more details and recordings, please visit: https://www.thewaterchannel.tv/ICOMOS

**IAL-ICID Webinar on Addressing the Global Water Challenge through Autonomous Irrigation Segment**

Irrigation Australia Limited and International Commission on Irrigation and Drainage organized a webinar on “Addressing the Global Water Challenge through Autonomous Irrigation Segment” on 29th October 2020. The seminar provided an overview of the practical application of autonomous irrigation on irrigation farms across Australia.

**Introduction:** Research in Australia is addressing the challenge of reduced water availability by improving the water productivity of Australian cropping and pasture irrigators. Key research areas, being addressed under a national program "Smarter Irrigation for Profit Phase 2 (SIP2)", include:

1. Developing new and innovative irrigation technologies, including the application of new sensors and advanced analytics to improve irrigation scheduling.

2. Development and delivery of autonomous irrigation including improved automation components and more robust networks for sensing, control and precision application for cotton, rice, sugar and dairy irrigation farming systems.

Participation was witnessed from leading irrigation researchers; Associate Professor Joseph Foley from the University of Southern Queensland, Centre for Agricultural Engineering and Associate Professor John Hornbuckle from Deakin University as well as representation from the farmers’ community who have adopted these systems.

The full recording of the webinar is available at ICID YouTube page at https://www.youtube.com/watch?v=oETo778BTQ&feature=youtu.be More information on the “Smarter Irrigation for Profit Program” can be found at https://smarterirrigation.com.au/smar.

**ICID e-learning training programs**

International Commission on Irrigation and Drainage (ICID) in collaboration with the Aqua Foundation Academy is organizing an online certificate course on Dam and Network Safety Assurance. The faculty team includes renowned industry stalwarts who have witnessed situations firsthand and provides mentorship for requisite skill sets in view of the growing importance of an assured delivery of water to the beneficiaries and continued assurance of performance worthiness of the components involved.

A brief description of the course is given below:

**Course Focus:** The course is meant for the professionals directly engaged in the works of maintaining and managing the irrigation and multipurpose projects having headworks in form of storage structures of various sizes and associated water distribution networks for providing water to the beneficiaries. The course aims at improving the skills of the professional entrusted with the responsibility of directly managing the facilities and ensuring their safety as well as reporting the status to the higher level of management. The works of such nature require exposure to the basics of the sciences and technologies that go into designing and operationalizing such facilities, deteriorations that can be expected over long years of usage, implications thereof towards continued safety of operators and hazard levels posed to the downstream communities, possible field and laboratory investigations techniques for identification of problems and reporting the observations to the expert personnel in a scientific and lucid manner so that the status at the field level is fully appreciated while planning the remedial measures by them.

Water management projects especially irrigation projects are long-lasting entities with a practically indefinite life. Even if the beneficiary land area changes its character in terms of land use, the utility of the head conservation works and the distribution networks remain or improve as they are required to deliver the water for larger economic good in keeping with development in the economy of the area. On the other hand, the tenure of a professional employed for managing the
project may be limited in keeping with the shortage of personnel and also the aspirations of the individual towards career progression. Many of the developing countries are facing this problem due to a smaller pool of manpower resources not in keeping with the growth in the population of the projects. At any point in time, a change of hands is inevitable with concomitant dangers of gaps in knowledge transfer.

The presence of exposure to a course of this nature provides necessary awareness to the incoming professional about the scope and nature of the assignment at hand and also makes the charged professionals aware of standard protocols at hand and also makes the charged scope and nature of the assignment to the incoming professional about the this nature provides necessary awareness at their own pace, within the time frame of 6 months. Live sessions also will be organized wherein participants can directly interact with experts and raise their queries. Preferred mode of receiving questions would remain through email.

For detailed course structure, registration process, free structure, and industry collaborations, please visit https://www.damsafety.co/

Contact Details:
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AF Academy: Ms. Praggya Sharmaa, Secretary General, Email: info@aquafoundation.in; praggya@damsafety.co

A new batch is being launched shortly!

Last date of the registration for the Batch-II is 15 December 2020. Please register: https://www.afacademy.org/dam-and-network-safety

IMPORTANT ANNOUNCEMENTS

ICID Annual Report 2019-20 released

The ICID Annual Report 2019-20 (for the period April 2019 to March 2020) has been released and posted on the website, it is available at http://www.icid-ciid.org/icid_data_web/ar_2019.pdf. Thank you everyone for your valuable contributions, which helped us to bring out this report. Your feedback and suggestions on the report for further improvement are always welcome.

71st International Executive Council (IEC) Meeting

71st IEC meeting of 2020 will be held virtually in two Sessions on 07-08 December 2020 – First Session on Monday, 07 December 2020 from 18:00-20:00 Hours (IST) and Second Session on Tuesday, 08 December 2020 from 18:00-20:00 Hours (IST).

ICID Central Office created a dedicated page on the ICID website for more information and regular updates regarding the virtual conduct of the IEC meetings, Pre-Council meetings, agenda notes, the conduct of the election of office-bearers, etc., besides circular mails are issued from time to time. For more information, please visit www.icid.ciid.com

ICID Journal on Irrigation and Drainage Journal, Volume 69 Issue 4 October 2020 released online

The ICID journal, Irrigation and Drainage is available online with its latest Volume 69, Issue 4, published in October 2020. The new volume is FREE via Wiley online library for all ICID Office Bearers, Work Body Members and Subscribers.

- Papers are available in easy to read PDF format
- Provides access to the full text of all articles published in Irrigation and Drainage since 2001, as well as Tables of Contents and Abstracts
- EarlyView service provides papers online as soon as they have been accepted for publication, which can be several months earlier than the papers published in print
- Sign up for FREE Wiley Alerts – receive the table of contents via email as soon as an issue is published online.

Now available online Issue 69.4, published October 2020. Click for direct access to the page with the papers of this issue of Irrigation and Drainage since 2001, as well as Tables of Contents and Abstracts. The ICID journal on Irrigation and Drainage on http://onlinelibrary.wiley.com/journal/10.1002/(ISSN)1531-0361.

The first issue to be published in the new layout, it is a very large issue with 33 research papers and ICID message.

72nd IEC Meeting and 5th African Regional Conference (AFRC)

72nd IEC Meeting and 5th African Regional Conference (AFRC) will be held in September 2021 in Marrakesh, Morocco. Confirmed dates and procedures will be released as and when finalized. The Young Professionals Training Program (YP-TP) will also be organized during the 5th African Regional Conference.
Dr. Sangita Ladha joins Rivulis Irrigation India as Director-Business

Dr. Sangeeta Ladha is ICID's long-term associate and actively participates in ICID's activities in various capacities, as a resource person for study tours, mentor for training Young Professionals, guest speaker at our events, and an active participant in ICID forums. It is brought to everyone's notice that she has recently taken charge as the Director-Business at Rivulis Irrigation India.

An effective placement of irrigation efficiency in water management will contribute towards meeting the preeminent global water challenges of our time such as addressing water scarcity, boosting crop water productivity and reconciling competing water needs between sectors. However, although irrigation efficiency may appear to be a simple measure of performance and imply dramatic positive benefits, it is not straightforward to understand, measure or apply.

A new paper on irrigation efficiency has been published in one of the world's leading sustainability journals; ‘Global Environmental Change’. The paper is open access and can be found here: [https://www.sciencedirect.com/science/article/pii/S0959378020307652](https://www.sciencedirect.com/science/article/pii/S0959378020307652). The paper invites a broad discussion on irrigation efficiency by allowing its many different perspectives to be placed within a framework. The framework is called the ‘Irrigation Efficiency Matrix’ (IEM) – see the figure.

73rd IEC Meeting and 24th ICID Congress

73rd IEC meeting and 24th ICID Congress will be held during 6–14 March 2022 at Adelaide, Australia, hosted by Irrigation Australia Ltd., and Irrigation Australia's Committee on Irrigation and Drainage (IACID).

Submission of Abstracts and Full Papers for 24th ICID Congress, Symposium and Special Sessions

IAL/IACID/ICID much appreciate the time and efforts of the aspiring participants in submitting their abstracts for the ICID Congress and associated events and Irrigation Australia. All abstracts submitted to date stand automatically included for consideration. We are fortunate to have your wholehearted participation with nearly 300 abstracts. Some abstracts have been approved for the submission of full-length papers. We assure you that the submissions will remain valid throughout the period, and you may continue the preparation of your full-length papers and submit them on the portal for further review and inclusion in the proceedings of the Congress.

Since the event is delayed, we have extended the dates for the submission of full-length papers substantially. Please visit the portal for the latest deadlines. However, we request you to not wait until the deadline and continue preparing for the full-length paper and submit the same online. Some of our friends who registered on the portal have not proposed abstracts or papers for the Congress. This postponement offers a golden opportunity to do so now and catch up with your other friends.

Please note that the deadlines of the following stands extended.
- Submission of 'Extended Abstracts' (500-600 words)
- Notification of Acceptance of Extended Abstracts
- Submission of Full Papers
- Notification to Authors (oral/poster/presentation)

Final deadlines and procedures will be shared as and when available.

In the meantime, should you wish to withdraw or edit your submission, you may do so at the portal [https://icidevents.org/techmanagement for 24th Congress, Symposium and Special Sessions].

10th International Micro Irrigation Conference: Dates will be announced later

10th International Micro Irrigation Conference (10MIC) to be held in Agadir, Morocco, will be a standalone event in 2023. Dates will be announced later. Micro-irrigation (drip/ trickle or localized irrigation) was introduced on a commercial scale in the world sometime in the 1970s. Micro-irrigation is the most efficient method of water application to crops. However, owing to the technicalities involved in its design, operation, and maintenance, the pace of its adoption was rather slow. To promote the use of micro-irrigation on a large-scale, the irrigation community worldwide, especially in developed countries, launched the International Micro Irrigation Congress in the year 1971. Subsequently, ICID volunteered to organize the event beginning with the 5th International Micro Irrigation Congress held in South Africa in 2000 to create awareness among its members about the latest developments in micro-irrigation technology to enhance crop production.
Completion of the Reconstruction of the Yomonjar Canal

With financial support and cooperation from the US Agency for International Development and Central Asian Regional Environmental Center, finally, the modernization and reconstruction project of the Yomonjar Canal was concluded in the Bukhara region. Beginning from 2019, the reconstruction work covered building up dams, hydrometric posts, pumping stations and concrete canal channels (7.2 km) for efficient water supply. USD 121,000 were solely spent on modernizing the pumping station.

To celebrate its completion, the Ministry of Water Resources of the Republic of Uzbekistan organized many technical and cultural events under the framework of the project "Water, Education, and Cooperation in Central Asia" (Smart Waters), funded by the US Agency for International Development and executed by the Central Asian Regional Environmental Center. An event was held in Karakul district along the newly built dam which runs through the Yomonjar Canal. It was attended by representatives of the Ministry of Water Resources of the Republic of Uzbekistan, Water management organizations of the Bukhara region, Water user associations, Central Asian regional organizations, Mayors of Alat, and Karakul districts, farmers, and several landowners. It was highlighted by the speakers that the reconstruction of the Yomonjar Canal has improved water supply and management in the region. As a result, the productivity of farms and homesteads has increased. Furthermore, water losses were reduced and the efficiency of the canal increased. The new hydrometric post allows to keep accurate records of water distribution between the Alat and Karakul districts.

An online event dedicated to the completion of the reconstruction of the Yomonjar Canal was also organized. The event was attended by Mr. Daniel N. Rosenblum, the US Ambassador to Uzbekistan, Mr. Zafar Makhmudov, the Executive Director of the Central Asian Regional Environmental Center, Mr. V. Akhmadzhanov, Deputy Minister of Water Resources of the Republic of Uzbekistan, among other dignitaries. The session began with a virtual demonstration of the newly constructed Yomonjar Canal using videos and audio-visuals. "The modernized water management facilities of the Yomonjar Canal will improve the water supply of more than 7,000 hectares of irrigated land in the Karakul and Alat districts of Bukhara region. At the same time, it will improve the quality of water distribution and management", said Mr. Daniel N. Rosenblum, the US Ambassador.

After the completion of the Yomonjar Canal project, the Department of Irrigation Systems of Amu-Bukhara now looks forward to the reconstruction of other canals in the future.