



From Secretary General's Desk...



Dear Colleagues,

Following the Paris Agreement among the countries, or parties as they are called under the UN Framework Convention for Climate Change (UNFCCC) at COP21 in Paris 2015, there is a gain in momentum in giving adaptation the kind of attention that mitigation has been achieving over the last two decades under UNFCCC negotiations.

Despite the fact that UN-Water has been putting its case forward since 2010, finally it has been acknowledged that Water is the primary medium through which climate change influences Earth's ecosystem. Countries are being urged to improve and consolidate their water resources management systems and to identify and implement "no regrets" strategies, which have positive development outcomes that are resilient to climate change.

Paris Agreement aims to strengthen the global response to the threat of climate change, in the context of sustainable development by "Increasing the ability to adapt to the adverse impacts of climate

change..." in a manner that does not threaten food production, among others.

ICID is supporting NCs in bringing change in policies and practices to deal with extreme situations of floods and droughts due to climate change, through its Working Groups (WGs). At the same time it is partnering with FAO and other international organizations establishing the "Global Framework on Water Scarcity in Agriculture" (WASAG). More about the Framework is covered in this issue.

The "Road Map to ICID Vision 2030" launched during the 68th IEC in Mexico, helps development of climate change adaptation strategy by bringing a change in policies and practices in agriculture water management (AWM) for sustainable development. It is heartening to note that various WGs have taken the activities identified under the Action Plan for implementation in the right earnest. Various decisions taken during the 68th IEC meeting and their earnest implementation will support NCs to fulfil their assigned mandates.

NCs will have to take actions to broaden their national network and get various stakeholders of AWM engaged for broadening collaborative actions in order to present sustainable solutions for eradicating hunger. They will have to play larger role in policymaking. The High Level Advisory Group on "Partnership for AWM", which held its first meeting in Mexico provides an excellent opportunity in that direction.

The Executive Council took a bold decision to strengthen the financial sustainability of ICID by revisiting the annual subscription formulae, which would also require innovative financial management of NCs themselves. NCs have been addressed to represent, if there are any issues that they face in implementing the formulae, so that the transition to the new regime could be smoothed as far as possible.

Presently, Central Office is working closely with various WG chairs in finalizing the minutes. By the end of this month patrons will receive the Draft Minutes of the 68th IEC Meeting.

It is already acknowledged that we need to reorient the way we work, if we have to achieve our goals and mission. I urge all the chairs to start the process of consultations with their working group members to take their activities forward.

Please feel free to let us know when you would like to organize webinars and virtual meetings for your WGs. Central Office is ready to help you to make an early start and achieve the desired objectives.

With best wishes,

Avinash C Tyagi
Secretary General

Managing Water Scarcity in Agriculture

The United Nations Framework Convention on Climate Change (UNFCCC) hosted the 23rd Session of the Conference of Parties (COP23), from 6-17 November 2017 in Bonn, Germany. The event, convened by the Presidency of Fiji, was attended by more than 20,000 participants with the aim to take forward the work on the implementation of the Paris Climate Change Agreement and galvanize climate action by all relevant stakeholders.

The Agriculture Action Day of COP23 was organized to on 10 November 2017 with specific focus on 'Managing Water Scarcity for Agriculture.' Deputy Director



(From L-R): **Nthopayizi Mphande**, Zambia; **Tatiana Fedotova**, World Business Council on Sustainable Development (WBCSD); **Olcay Ünver**, FAO; **Luis Felipe Alcocer Espinosa**, CONAGUA, Mexico; **Oyuun Sanjaasürengiin**, Global Water Partnership (GWP); **Mariet Verhoeff-Cohen**, Women for Water Partnership (WfWP); and **Avinash Tyagi**, International Commission on Irrigation and Drainage (ICID)

Dr. Olcay Ünver, FAO set the scene through a presentation on 'Global Framework on Water Scarcity in Agriculture (WASAG): Emerging Perspectives.' He emphasized the

role of WASAG in addressing the issues of poverty, hunger and water which are well aligned with the Sustainable Development Goals and ICID Vision 2030. Secretary



General Avinash C. Tyagi, a member of the Interim Steering Committee of WASAG represented ICID as a panellist pointed out that the WASAG vision “A World whose food systems are secure and resilient to increasing water scarcity in a changing climate” is closely linked to the ICID mission to “facilitate prudent agriculture water management” and reiterated ICID’s commitment to take the outcomes of the WASAG to the field level through its network of the National Committees from 60 countries.

The overall objective of the session was to bring together partners, key stakeholders and country representatives to discuss progress made towards achieving the objectives WASAG and mobilize further

commitments and action through feedback from all the stakeholders. It was entitled ‘What solutions do you propose to cope with the threats of water scarcity and climate change to agriculture and food security? Are there opportunities to be pursued?’ Dr. Oyun Sanjaasuren, Mongolia, Chair of Global Partnership as the moderator gave opening remarks.

Ms Mariet Verhoeff-Cohen, Deputy Chair of the Interim Steering Committee (ISC) of WASAG and Chair of Women for Water Partnership, gave a brief outline of the WASAG. She pointed out that WASAG will support the development and deployment of policies, strategies, programmes and field capacity for adaptation of agriculture to water scarcity. Ms Tatiana Fedotova,

representative of the World Business Council on Sustainable Development and a partner of WASAG; and Ms. Nthopayizi Mphande, Young Aquaculture Farmer, Zambia also participated in the panel.

A short video on small-scale farmers in Rwanda was screened and it highlighted the opportunities in agriculture and agribusiness for young farmers.

The outcome of the event showcased real-world cases of stakeholders, including women, indigenous people, private sector and partners, solving problems related to water scarcity while creating climate benefits.



WASAG endorsed in UNCCD COP13 Drought Policy

The Global Framework on Water Scarcity in Agriculture (WASAG) was endorsed by the United Nations Convention to Combat Desertification (UNCCD) during the 13th Session of the Conference of the Parties (COP13) held in Ordos, China from 6-16 September 2017. The COP concluded with the issuance of the Ordos Declaration, a decree by 80 ministers urging enhanced action to fight desertification. A key decision adopted at COP13 was concerning Policy advocacy on drought by UNCCD wherein the role of WASAG has also been recognized:

“ Taking note of the various existing initiatives at all levels in relation to drought, including the

Global Framework on Water Scarcity in Agriculture initiative and the UN-Water initiative of the UNCCD secretariat, World Meteorological Organization, Food and Agriculture Organization of the United Nations, Convention on Biological Diversity and UN-Water Decade Programme on Capacity Development in building capacities to support countries to develop and implement national drought management policies, and emphasizing the need to ensure coherence, coordination, and complementarity.

“ Consider utilizing the Global Framework on Water Scarcity in

Agriculture initiative as a knowledge-sharing partnership to help countries develop their drought preparedness plans.

FAO and its partners, including ICID launched the Global Framework to create and strengthen valuable partnerships to address the increasingly urgent issues of water scarcity in a changing climate with a more holistic approach. Full text of UNCCD COP13 on drought policy advocacy can be downloaded at http://www2.unccd.int/sites/default/files/sessions/documents/2017-09/ICCD_COP%2813%29_L20-1716100E.pdf.



Web Initiatives on Climate Change and Agriculture

New COP23 website launched

Coinciding with the UN Climate Change Conference 2017, a new dynamic COP23 website funded by the German Government and with voluntary support from the Government of Norway and the European Union was launched. The initiative is a part of a much wider upgrade of the UN Climate Change secretariat’s web presence towards a new 21st century system with modern features and an enhanced user-friendly

format. Available in French and Spanish, the fully functional website features a newsroom and a calendar of events from various UN Climate Change databases.

Visit the new website @ <https://cop23.unfccc.int>

FAO and UNDP launch online course on Climate Change & Agriculture

An intensive six-week online course featuring leading global experts on climate change was initiated on November 13, 2017 to equip the participants, particularly the young professionals to have a better understanding of the interlinkages between climate change, agriculture, food security and the role of National Adaptation Plans (NAPs). The Massive Open Online Course (MOOC) titled ‘National Adaptation Plans:

Building Climate Resilience in Agriculture’ encourages the participants to engage with global experts on climate change, explore best practices and new approaches for building climate resilience in an interactive video-based format. On completion of the course, participants will be able to effectively discuss the links between climate change, agriculture and sustainable development, and the role of international agreements including the 2030 Agenda and the Paris Agreement.

To register online, please visit: www.napmooc.uncclearn.org.



Climate Adaptation Technologies

Climate Change Adaptation Technologies for Water: A practitioner's guide to adaptation technologies for increased water sector resilience, a new publication by UN Environment– DHI Centre on Water and Environment, Climate Technology Centre and Network (CTCN) and the UNEP DTU



Partnership provides a comprehensive overview of water adaptation technologies to date.

The publication includes 102 adaptation technologies for building resilience to climate change induced hazards in the water sector. It provides a comprehensive overview of specific water adaptation technologies and techniques that address challenges resulting from climate change. It also features a library with further information on each of the adaptation technologies. The cornerstone

of this guide is the water climate change adaptation technology catalogue developed for the purposes systematizing the most pressing climate change challenges in the water sector. In addition, the guide includes an introduction to several approaches to selection and prioritization of the adaptation technologies.

For access to the publication in pdf format, kindly visit: <https://www.dhigroup.com/global/news/2017/11/launched-climate-change-adaptation-technologies-for-water>

Modernization of Irrigation Systems: A Global Perspective

Sensing the urgency of revamping the irrigation sector through modernization from a global perspective, Mr. Herve Plusquellec, Former Irrigation Adviser, World Bank delivered a workshop lecture on 'Irrigation Modernization: Lessons from Global Experience' on 31 October, 2017 at the World Bank Office, New Delhi. Chaired by Mr. Pillai, Commissioner (MOWR) the workshop included officials from ICID; Mr. Sikka, IWMI Representative-India; CWC officials and WB water sector specialists. Secretary General Avinash C. Tyagi, ICID pitched in as the discussion moderator during the workshop.

The workshop covered the technical, financial and operational aspects of irrigation sector. It stated that funding by World Bank and ADB has gradually shifted from infrastructure development, leaving a vacuum and bigger role for the private sector, which is currently negligible.

Mr. Plusquellec emphasized that clarity needs to be embedded in the concept of 'modernization' and 'rehabilitation'. While the former indicates a complete "hardware and software" revamp of irrigation systems the latter is about bringing back an irrigation system to its design performance. Without a strong effort to improve the productivity of existing systems may lead to regional pockets of food deficit. Case example of Australia was projected which has



leapfrogged directly from 19th century irrigation technology to 21st century automated system.

The other technology mentioned was geosynthetics application in canal lining, which reduces water seepage losses and strengthens canal sides for better operation and maintenance.

Mr. Herve suggested that flexibility, reliability and equity are the keywords for irrigation systems. He stressed that O&M financing and institutional aspects should be factored in at the design stage and all stakeholders should be involved from day one in the planning and design of irrigation systems. In respect to Water User Associations (WUA's), he stated that many developing countries are trying to institutionalize WUA's.

Secretary General, ICID identified capacity building at the local level a critical input for making irrigation effective. Lack of communication among the diverse

stakeholders and absence of an innovative platform added to the problem. World Bank proposed that knowledge exchange initiatives could be worth exploring with collaborative efforts from ICID, World Bank and CBIP.

As a precursor to the workshop, Mr. Plusquellec visited the ICID Central Office on 30 October, 2017 for a detailed discussion on the future orientation of ICID and the need to overhaul its role in exchanging new knowledge and information on irrigation and drainage.

He emphasized that there has been a decline in public funding of large irrigation projects and therefore, it is imperative that ICID engage all private sector stakeholders and motivate them through exhibitions in WIFs, Congresses, Web Directory of Services/ Products, WatSave Awards and specific side events. Further, it was mentioned that papers submitted for ICID events and journal should also include practical approaches.

To address this gap, Secretary General, ICID suggested that the composition of working groups should be more technical and impact oriented. Thematic symposiums and an active role played by the bigger NCs with available resources and expertise can facilitate frequent action and deliberation.



ICID participates in WaterScapes

The International Commission on Irrigation and Drainage (ICID) participated in the Indo-German symposium 'WaterScapes' held on 5-6 October 2017 in New Delhi. The symposium facilitated a knowledge transfer environment that bridged science, policy and practice.

More than 20 technical presentations were given during the symposium wherein eminent scholars, leading experts and practitioners from Germany and India talked about issues related to water, primarily focusing on four broad themes: (i) Hydro hazards (ii) Urbanisation and water resource management (iii) Integrated River Basin

Management and (iv) Water Security and Governance.

All the participants exchanged their views, ideas, initiatives and approaches, and jointly pursued commonalities and innovative solutions to secure a sustainable and efficient water resource management.



The keynote address was delivered by Prof. Dr. Brigitta Schütt, Vice President, Freie Universität Berlin on Integrated Watershed Management. She stated that though there is enough knowledge about watershed management, but due to asymmetric capacities of various stakeholders it has not been applied in the field. She suggested that future approaches should ensure a judicious mix of both traditional knowledge and new technology in order to make agricultural water management more contextual and sustainable at the local level.

The presentation on Water-Food-Energy Nexus in Urban Areas by Prof. Dr. Jörg Drewes, Technical University of Munich (TUM) was directly relevant to ICID's mandate and activities and offered an incremental learning value. Dr. Drewes advocated that a paradigm shift is needed in the integrated urban planning by using Water-Energy-Food nexus approach and to achieve this wide range of technologies are available for urban water reclamation and reuse coupled with resource recovery.



Prof. Dr. Martin Voss, Freie Universität Berlin gave an interesting presentation on the Culture of Managing Flood Events. He highlighted how a culture or belief system plays a prominent role in the way we perceive risks and manage them. He stressed that a good integration system in planning a location-specific disaster management can help mitigate risks and damages caused due to natural hazards like

floods. Also, the role of communication among diverse stakeholders cannot be negated.

The symposium ended on a vibrant note with a session dedicated to young professionals wherein they presented their ongoing innovative research on water resources management and governance.



Indonesia Calling: 70th IEC Meeting and 3rd World Irrigation Forum (WIF3), Bali, Indonesia

Climate change is predicted to have a massive impact on water availability by drastically altering hydrological

regimes across the world. Sustainability of irrigation as a part of water resources system has become one of the most important agenda to cope with.

To formulate a new perspective and strategy for the future of irrigation system, the Indonesian National Committee of ICID (INACID) will host the World Irrigation Forum 3 and the 70th IEC Meeting of ICID from 1-7 September 2019 at the Bali International Convention Centre (BICC), Indonesia.

The 7-day event will focus on the main theme "Development for water, food and nutrition security in a competitive environment" covering wide-range of topics under three sub-themes, namely – (i) Enabling policy environment for water, food and energy (ii) Role of Civil Society and NGOs with focus on farmers and extension facilities (iii) Improving agricultural water productivity with focus on rural transformation.

Attaining sustainable development under limiting natural resources as envisaged under Agenda 2030, calls for recognizing the interlinkages between various sectors. A clear understanding of these interlinkages such as nexus between water, food and energy requires greater interaction among stakeholders from all three sectors.

WIF3 will provide an opportunity for the actors in these sectors to come together and develop pathways to the sustainable development towards the 'Future We Want.' It will provide an excellent forum to all the irrigation participants to exchange and share their experiences, technologies and ideas to promote sustainable development through irrigation and drainage.

Technical Tours

Jatiluwih is a favourite tourist destination in Bali famous for the beautiful rice terrace unfolding from the hill to the coastal side. The local paddy has been planted in this place. Moreover, Jatiluwih is famous for its organic agriculture system due to its location in the plateau of Watukaru Mount, suitable for agricultural activities.

Subak Museum displays the collection of agriculture/farming tools and integrated rice-field irrigation system of Bali called

'Subak'. Known to the world for centuries it has been awarded the World Heritage Cultural Landscape status by UNESCO and is deeply ingrained in the Balinese culture since the 11th century. The museum has also become a favourite hotspot for educational tour for students and foreign tourists. ICID participants will get a good opportunity to closely observe the ancient irrigation technology.

Accompanying Person's Programs

The free programs are provided to explore Bali and its rich culture and tradition. Registration process is free which includes interesting programs like Cooking Class & Ubud Shopping; Uluwatu & Traditional Craft; Barong Dance and a visit to Tampak Siring Temple.

INACID is honoured to give the first announcement for the World Irrigation Forum – 3 to all the prospective delegates and hope that the beautiful province of Bali will give ample reasons to the attendees to experience the wonders and richness of the history and ancient civilization of the region.

For more, <http://www.icid2019.com>



Global Water Security Conference 2018

In a bid to discuss current and future water security problems, the American Society of Agricultural and Biological Engineers (ASABE) in collaboration with the Indian Society of Agricultural Engineers (ISAE) will organize a conference on 'Global Water Security for Agriculture and Natural Resources' (GWSC) from 3-6 October 2018 in Hyderabad, India. The conference will aim to bring together farmers, researchers, practitioners, entrepreneurs, and policy makers on a common platform.

It will specifically focus on water security for producing food, fiber, and energy crops while maintaining water quality and quantity needed for natural balance in the ecosystem. It will also aim to share research, and discuss creative solutions that can be applicable at various scales in different regions.

As a precursor to the conference, a meeting was held with the organizers and partners to discuss ICID's role as a technical partner. Prof. Gajendra Singh (local focal point for GWSC) visited ICID Central Office on 26 Sept 2017 and met Secretary General Avinash C. Tyagi and other ICID officials. During the meeting it was decided that ICID will serve as a technical partner for agricultural water management and contribute a position paper on 'Water Accounting'.

A follow-up meeting of the conference chair, organizers and partner organizations including ICID, World Bank, and ICAR was held at the WB Office, New Delhi on 9 October 2017. It was decided that each technical session will be steered by a particular partner, including its theme and technical contributions. As such sessions

would be owned by ASABE, World Bank, IWMI, FAO, CGIAR, ICID, ICAR/IASE, etc.

Slated for October 2018, the conference is expected to be attended by more than 300 participants from more than 30 countries and international organizations. Farmers from around the world will be invited to participate on issues concerning them, including Water Users' Association (WUAs). A session will be solely dedicated to water industry representatives with moderated discussions and exhibitions.

Emerging technologies such as Internet of Things (IoT) will also form a part of the conference. For more, kindly visit: <http://www.asabewater.org>



Smart Water Use in Crop Irrigation

Two papers published in Irrigation and Drainage journal may help improve estimates of water requirements for crops, which will help save water and minimize losses, allowing more land to be irrigated and subsequently more food to be produced. The studies published were completed as a part of the EU-funded Water4Crops project.



The results of one study on an experimental farm near Bologna, Italy indicated that crop irrigation water requirements based on evapotranspiration obtained from modern technologies (Scintillometer and Eddy Covariance) could save at least 50% of irrigation water. Another benefit is that these technologies do not need the crop coefficient Kc (calculated from evapotranspiration data) which may be

difficult to obtain for many irrigation practitioners.

The other publication highlighted a new technology called the Cosmic-ray Soil Moisture Observation System (Cosmos) that can be used to determine when and how much water to apply in irrigation. This strategy saves over 40% of water used for sprinkler irrigation and 25% of normal drip irrigation. The Cosmos technology is one step in the right direction as it provides continuous, integrated, area-based values and solves the problem of spatial variability often found in point measurements. This method could also be made operational for irrigation managers to determine the soil moisture deficit, hence determine when and how much to irrigate to avoid harmful water stress.

Research led by the Centre for Ecology & Hydrology (CEH) in UK could help improve the estimates of the amount of water needed for crop irrigation, helping to alleviate both water stress and food insecurity in many regions by allowing more efficient



irrigation across more land. The results have a worldwide implication as irrigation uses 70% of freshwater resources globally.

Link to Studies:

1. Towards Accurate Estimation of Crop Water Requirement without the Crop Coefficient Kc: New Approach Using Modern Technologies: <http://onlinelibrary.wiley.com/doi/10.1002/ird.2153/full>
2. The Cosmic-ray Soil Moisture Observation System (Cosmos) for Estimating the Crop Water Requirement: New Approach: <http://onlinelibrary.wiley.com/doi/10.1002/ird.2152/full>



Irrigation and Drainage

The ICID journal, Irrigation and Drainage is now available online with its latest **Volume 66.4, published in October 2017**. The new volume is FREE via Wiley online library for all ICID Office Bearers, Work body members and subscribers.



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NEWS BUZZ: ICID National Committees

IACID (Australia)

Irrigation Australia (IAL) held its Annual General Meeting on 19 October 2017 through a teleconference. Mr. Simon Treptow, General Manager of Irrigear Stores Ltd. was welcomed as the new incoming director. Chairman Andrew Ogden, Mr. Peter Brueck, Mr. Bruce Scarterfield and Mr. Monir Vranes returned for another term. In highlighting the year's activities, Chairman Ogden spoke about the opportunities that Irrigation Australia is keen to address in the future, especially the challenge of building on the positive results achieved so far. He



thanked all the members for their ongoing support and involvement and indicated that Irrigation Australia will continue to grow in its role as the peak national body representing all sectors of the Australian irrigation industry. Ms. Kath Eden was given a warm farewell following the end of her two-year tenure on the board.

The biennial **2018 Irrigation Australia conference**, touted as the only Irrigation conference in Australia solely dedicated to promoting the entire irrigation industry value chain, will be held from 13-15 June 2018 at the new International Convention Centre, Sydney. The theme of the conference "Addressing the Big Issues" will specifically focus on topics such as energy provision and affordability, urban water policy and reform, infrastructure development and drought-management strategies. The keynote speakers include Mr. Phillip Glyde, Chief Executive, Murray Darling Basin Authority; Dr. Julian Cribb, Consultant with Julian Cribb & Associates; Mr. Matthew Warren, Chief Executive of

the Australian Energy Council; and Felix B. Reinders, President, ICID.

For more info, kindly visit: <http://www.iaice.com.au>

INCSW (India)

The Indian National Committee of ICID (INCSW-CWC) has kick started it's preparations for the upcoming 9th International Micro irrigation Exhibition and Conference to be held in January 2019 in Aurangabad, Maharashtra on the theme 'Micro Irrigation in Modern Agriculture.' A committee meeting was held on 3 Nov

2017 New Delhi to discuss the event proceedings and preparations. Secretary General Avinash C. Tyagi, ICID attended the meeting. The conference will aim to promote the use of micro irrigation on large-scale with a special focus on smallholder, micro finance, automation and new techniques, O&M services and capacity development, water use efficiency and poverty alleviation. An exhibition will be arranged for private sector participation from across the world. The three-day event will also include roundtables and side events with special focus on women and farmers' participation and rural development.

PANCIID (Pakistan)

The Centre of Excellence in Water Resources Engineering (CEWRE) is organizing an international conference from 19-20 December, 2017 at UET Lahore, Pakistan, keeping in view the increasing importance of hydropower as a clean, renewable and vital source of sustainable energy. The conference would provide a great opportunity to engineers, hydrologists, geo-scientists and other professionals engaged in the field of Hydropower Engineering to share their expertise and experiences. It will also include a number of technical sessions to help bridge the gap between theoretical knowledge and field practices.

Events Corner

ICID Events

Drainage and Flood Control Summit, 26-27 November 2017, Riyadh, Saudi Arabia. For more details visit: <https://drainagefloodcontrol.com/>

8th Asian Regional Conference on the theme 'Irrigation in Support of an Evergreen Revolution', 2-4 May 2018, Kathmandu, Nepal. Contact: Mr. Bashu Dev Lohane, Secretary, Nepal National Committee, ICID (NENCID), Deputy Director General, Department of Irrigation; Email: lohanibasu@yahoo.com, irrigation@wlink.com.np; Website: <http://nencid.org.np/8th-annual-regional-conference/>

69th International Executive Council Meeting and International Conference, Saskatoon, Canada, 12-17 August 2018, Saskatoon, Canada. For more details visit: <http://www.icid2018.org>. Brochure available at http://www.icid.org/brochure_69iec.pdf

Global Water Security for Agriculture and Natural Resources (GWSAN): An ASABE Global Initiative Conference, Hyderabad, India, 3-6 October 2018. For more details visit: <http://www.asabewater.org/>

9th International Micro Irrigation Conference, January 2019, Aurangabad, India. Contact: Mr. Anuj Kanwal, Member Secretary, Indian National Committee on Surface Water (INCSW); Email: icid-cwc@nic.in; Website: <http://www.cwc.gov.in/main/INCID/welcome.html>

3rd World Irrigation Forum (WIF3) and 70th IEC Meeting, October 2019, Bali, Indonesia. Contact: Ir. Mohamad Hasan, President, Indonesian National Committee of ICID (INACID), Director General of Research and Development, Email: inacid_indonesia@yahoo.co.id, mohasan53@yahoo.co.id

24th ICID Congress and 71st IEC Meeting, 22-24 September 2020, Sydney, Australia. Contact: Mr. Bryan Ward, Chief Executive Officer, Irrigation's Australia Limited (IAL) (Incorporating IACID), Email: Bryan.ward@irrigation.org.au, Website: <http://www.irrigation.org.au>

Other Events

Irrigation Australia International Conference and Exhibition, 13-15 June 2018 in Sydney, Australia. For details, visit <http://iaice.com.au/conference/>

International Commission on Irrigation and Drainage (ICID)

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