

News Update

January 2019

A Water Secure World Free of Poverty and Hunger through Sustainable Rural Development



ICID•CIID

From Secretary General's Desk...

Dear Colleagues,

The ICID team has just returned from the week-long 9th International Micro-Irrigation Conference (9IMIC) recently held in Aurangabad, India and hence the delay in the release of this issue. However, I am pleased to share with you all my positive experiences and informative coverage to make up for the delay. The mega event witnessed over 700 participants, including more than 100 international professionals, around 200 farmers from India and a few from abroad, and rest from a variety of scientific and engineering disciplines; all gathered under one roof to share their views and innovative ideas for large scale adoption of micro-irrigation technology to improve productivity in the agriculture sector.



We all were in a visual treat to see such an enthusiastic response from the farmers and irrigation engineers during the exhibition of

various technology products and services for micro-irrigation. ICID President Felix Reinders, Vice President Marco Arcieri and Vice President (Hon.) Mohamed Wahba participated in the conference and delivered keynote presentations and speeches. At the venue a farmers 'fair' was also organized where one could buy food and fibre products in attractive packaging mostly made by village women from various parts of India. The fair was a popular hub among the participants and so was the ICID booth that distributed promotional materials as well as explained the working of ICID network to the visitors.

Just prior to the 9IMIC, ICID conducted a study tour on solar-powered irrigation systems for delegates from Egypt and Tunisia. The study tour was sponsored by FAO regional office in Africa with complete technical and logistic support from ICID. The delegates were taken to several projects depicting solar powered canal irrigation systems where they interacted with local officials and beneficiary farmers in several states of India. The study tour concluded with a 2-day visit to the sprawling facilities and research & development center of Jain Irrigation Systems Limited (JISL), an India based multi-national company that manufactures the entire range

of micro-irrigation equipment and supplies; develops tissue culture; promotes contract farming and builds capacity in farming and extension communities. The most captivating observation was the tenacious and dedicated research team at JISL entirely subsumed in developing world-class micro-irrigation products. The delegates were more than satisfied with their study tour activities and observations.

I also had an esteemed opportunity to interact with H.E. Sikapale Henry Chinzeve, Deputy High Commissioner, High Commission of the Republic of Zambia at our ICID Central office and briefed him about the ICID network, its activities and support to various National Committees in African region and around the world.

With this I close my note and wish you all a happy and blissful start to New Year 2019...!!

Best Wishes,

Ashwin B. Pandya
Secretary General

Canadian PM Trudeau, VPH Tollefson discuss water issues: Challenges, solutions and conservation

The Canadian Water Resources Association (CWRA) in collaboration with the Canadian National Committee (CANCID) successfully organized the International Conference and 69th IEC Meeting from 12-17 August 2018 in Saskatoon, Saskatchewan, Canada. The theme of the conference emphasized the crucial role of sustainable water use as 'a priority' to build a more productive and resilient agricultural sector.

As a follow-up to the 69th IEC Meetings, Vice President Hon. Laurie Tollefson met and interacted with Canadian Prime Minister Hon'ble Justin Trudeau and Hon'ble Ralph Goodale, Minister of Public Safety and Emergency Preparedness to discuss current and future water challenges. VPH Tollefson shared that the international conference showcased some of Canada's strategies related to effective water management with the understanding of climate change and its impacts on water security and environment.

Hon'ble Prime Minister Trudeau opined that given the important role that agriculture



plays in the life and economy of Canada, sustainable water management is vital to the future of our footprint, while increasing yields. He remarked that the country has adopted many leading edge technologies to manage and distribute its limited water resources and to further realize that potential in the face of frequent severe floods and droughts caused by climate change, better water management is essential.

Hon'ble Minister Goodale noted the importance of the agri-food sector to deliver safe, high-quality food to a growing world population with effective water management. The need of the hour is to yield new solutions for climate-smart agriculture that will help the world's farmers meet the challenge of feeding a growing population sustainably.

9th International Micro Irrigation Conference held in Aurangabad, India 16-18 January 2019



The 9th International Micro Irrigation Conference was organized by the Ministry of Water Resources, River Development and Ganga Rejuvenation (MoWR, RD&GR), Government of India in association with ICID, Indian National Committee on Surface Water (INCSW) and WAPCOS Limited from 16-18 January 2019 in Aurangabad, Maharashtra, India.

'Micro Irrigation in Modern Agriculture,' the theme of the conference aimed to share experiences in the use of new technologies and best management practices in drip, micro-sprinkler and other localized irrigation systems with sub-themes focusing on (i) Design, Innovations, and New Techniques for increased Crop Productivity; (ii) Micro-irrigation funding and Government support; (iii) Micro Irrigation for 'Cluster Level Farming and Small farm holders'; and (iv) Operation and Maintenance Services and Capacity Development for the Micro-Irrigation Systems.

Union Minister of Road Transport and Highways, Shipping and Water Resources, River Development and Ganga Rejuvenation Mr. Nitin Gadkari inaugurated the event as the chief guest and was presided by Hon'ble Chief Minister of Maharashtra Mr. Devendra Fadnavis. Union Minister for Agriculture and Farmers Welfare Mr. Radha Mohan Singh, Minister of State for Water Resources, River Development & Ganga Rejuvenation and Parliamentary Affairs Mr. Arjun Ram Meghwal, and Ministers from several state governments also presided as the guest of honour during the event.

Hon'ble Minister Dr. Mahendra Reddy (Ministry of Agriculture, Rural and Maritime Development and Waterways

and Environment, Government of Fiji) graced the occasion as a Special Invitee. Mr. U.P. Singh, Secretary, MoWR, RD&GR, Govt. of India; Mr. S. Masood Hussain, Chairman, (INCSW, Central Water Commission); Er. Felix B. Reinders, President and Er. A.B. Pandya, Secretary General from ICID were also present during the conference.

Speaking on the occasion, Mr. Gadkari stated that micro irrigation is a game changer in agricultural development. He termed the replacement of the Canal system by pipe system as a revolutionary move and emphasized that the Central government is taking several new initiatives for water conservation. Mr. Gadkari said it is time to think of change in crop pattern considering the availability of water and further emphasized on new technology, new innovation and new research for agricultural sector which will help in increasing productivity.

Event Highlights

The three-day conference witnessed a large group of eminent international and national experts and local farmers sharing their experiences in the field of latest development in micro irrigation technology to enhance crop production and water management for optimal use in agriculture, technical and sociological interventions for sustainable water, food and agriculture.

As a part of the conference, Water and Land Management Institute (WALMI), Aurangabad organized a one-day "National Micro Irrigation Workshop for Farmers" on 15 January 2019. Around 200 farmers from various states of the country participated in the event. The event was graced by Mr. Uday Chaudhari, Collector & District Magistrate of

Aurangabad; President Reinders and Mr. Girraj Goyal, Director, MoWR, RD&GR.

President Reinders made a presentation on Micro Irrigation and introduced different practices and technologies used in various countries. On special request from the farmers, the presentation was interpreted in Hindi and was very well received. At the end of the first session, President Reinders, Vice President Dr. Marco Arcieri and other invited guests also planted saplings in the WALMI complex.

The event initiated a multi-disciplinary dialogue for discussions and deliberation through seminars, exhibitions and sessions and raised awareness regarding large-scale use of micro-irrigation including new techniques in micro-irrigation for increased crop productivity, micro-irrigation in cluster level farming and canal irrigation systems.

Irrigation minister's roundtable, farmer's pavilion and NGO sessions, handcrafts mela, workshops on specific crops and specific agro-climatic zones were also organized during the conference, apart from the presentation of micro-irrigation awards to farmers, practitioners, companies and government. Additionally, the event aimed to address the problems of developing as well as developed nations in the context of present-day challenges. Around 700 delegates including 100 foreign delegates from 30 countries participated in the conference that provided a global platform to professionals and exhibitors to showcase their knowledge and technologies from around the world.

For more information, please visit: http://www.icid.org/9th_microirri.html



President Reinders visits ICID Central Office

President Felix B. Reinders visited ICID Central Office on 13 December 2018 and was received with a warm welcome from the ICID staff. He held a brief interaction with SG Pandya and other ICID officials including Executive Director Harish Varma, Dr. Sahdev Singh, Dir-KM, Mr. Madhu Mohanan, Communication Officer and Dr. Vijay Labhsetwar. At the outset, SG Pandya welcomed President Reinders and introduced the Central Office team. President Reinders was in India to attend the first International Conference on Sustainable Water Management held in Mohali, Punjab. He shared his experiences about the conference which he felt was extremely relevant today especially in the light of global climate change and how the conference theme dealt with promoting integrated, sustainable development and management of water resources. Later he shared his experiences of visiting the farmers' fields in Ludhiana, Punjab that gave him a glimpse of the archetypal idyllic scenery of rural India representing their plain existence and simple thinking.

He shared his experiences of interaction with the farmers and added that the use of pesticides, seepage of chemically affected and polluted water in ground water and crop residue burning were important areas of concern. Besides



this, the excessive use of groundwater for agriculture has also caused a strain on the resource. He suggested reducing our dependency on ground water sources and investing more in water recycling and rainwater harvesting. President Reinders explained that we must also develop crop rotation techniques to improve the soil structure and enhance water holding capacity of the soil.

SG Pandya apprised President Reinders about the major ICID events including the 9th International Micro Irrigation Conference (9IMIC) in Aurangabad, India (16-18 January 2019) and the Third World Irrigation Forum (WIF3) and

70th IEC Meeting in Bali Indonesia (1-7 September 2019). He added that activities were also streamlined and in full swing to celebrate the 70th ICID Foundation Day. SG Pandya invited President to be a part of 9IMIC that would provide an excellent opportunity to engage with other stakeholders and to showcase how ICID could contribute towards the theme of micro irrigation in modern agriculture. President Reinders gladly reciprocated to the invitation and assured his full support and active participation during the conference.

Mr. Houssine represents ICID at African Union CIADF Workshop in Addis Ababa

Pr Bartali El Houssine, Vice President of Moroccan National Committee (ANAFIDE) represented ICID during the expert meeting hosted by the African Union Commission (AUC) in AUC headquarters, Addis Ababa, Ethiopia from 11-12 December 2018 on the theme "Validation of the AUC report on Continental Irrigation for Agricultural Development Framework (CIADF)".

The workshop was attended by invited experts in the field of African irrigation agriculture, agricultural policy/strategies and development. Food and Agriculture Organization, World Bank, International Water Management Institute (IWMI), Japan International Cooperation Agency (JICA), Global Water Partner Eastern Africa (GWPEA), and International Center for Tropical Agriculture (CIAT) also attended the workshop.

The expert validation workshop provided an excellent opportunity to exchange knowledge and experiences aimed at providing experts' technical and policy/governance related input in review of



the draft document. It was organized by AU-SAFGRAD: Semi-Arid Food Grains Research and Development in collaboration with the Comprehensive Africa Agricultural Development Plan (CAADP). During the two-day workshop, the participants examined the various sections covered in the CIADF report, namely: (i) Diagnosis and data related to the present situation on the African continent and particularly in sub-Saharan countries with respect to water mobilization and use for agricultural production; (ii) Assessment of the shortage in meeting water needs; and (iii) six pathways for agricultural water investment and support.

During the meeting, Mr. Houssine covered in particular: (i) A recall of the ICID Vision 2030 and the activities of National Committees to implement the Vision; (ii) the Morocco experience in irrigation and particularly the original system of Public Private Partnership (PPP) financing model for implementing irrigation schemes. He highlighted that two major projects were undertaken for water conveying and distribution networks as well as management of irrigated schemes using surface water stored in dam reservoirs (El Guredane project) or desalinated water from the Atlantic Ocean (Chtouka project).

Mr. Houssine announced the organization of the 5th African Regional Conference on Irrigation and Drainage (ARCID) by ANAFIDE and ICID to be held in Morocco on the theme "Sustainable management of irrigation for improved resilience of agriculture in Africa" from 16-19 March 2020. He invited all the participants to attend the regional conference and also submit abstracts and papers.

Meeting with Deputy High Commissioner of the Republic of Zambia

Deputy High Commissioner of the Zambian High Commission H.E. Sikapale Henry Chinzewe, visited ICID Central Office on 9 January 2019 and was received by SG Pandya and Dr. Vijay Labhsetwar. The meeting aimed to discuss and foster a more collaborative working environment between Zambia and ICID. Pursuant to the meeting with Mr. Chinzewe, ICID initiated steps to include the Zambia High Commission in the Secretariat's mailing list and its



correspondences with the Ministry of Agriculture, Government of the Republic of Zambia. The Zambia High Commission

accepted to be an integral part of all meetings/workshops and seminars of ICID. SG Pandya expressed his privileged pleasure and honour to invite and receive the High Commissioner, Her Excellency Mrs. Judith Kan'goma Kapijimpanga for the conducted tour of the ICID Central Office and to further identify areas of collaborative activities between the two parties other than the existing ones.

1st International Conference on Sustainable Water Management held in Mohali, India

In order to promote sustainable policies for water management, the first International Conference on Sustainable Water Management was held in Mohali, Punjab, India from 10-12 December 2018. The conference was organised by Bhakra Beas Management Board (BBMB) under the aegis of the National Hydrology Project of the Union Ministry of Water Resources, River Development and Ganga Rejuvenation.

The three-day conference aimed to foster participation and dialogue between various stakeholders, including governments, scientific and academic communities in order to promote sustainable policies for water management, and to create awareness of water-related problems, motivate commitment at the highest level for their solution and promote better management of water resources at local, regional, national and international levels.

The inaugural session of the conference was attended by Himachal Pradesh Governor H.E. Acharya Devvrat, who was the Chief Guest of the event and Mr. U.P. Singh, Secretary, Ministry of Water Resources, River Development and Ganga Rejuvenation as the Guest of Honour.

Mr. D.K. Sharma, Chairman, BBMB welcomed the Governor and addressed the audience that currently we are facing acute stress on our water resources due to population growth, economic expansion, urbanization, pollution and climate change effects. He hoped that the conference would provide an interactive platform for brainstorming and sharing path breaking ideas and case studies in respect of flood and drought management, hydrology, environmental flows, inter-basin water transfer, climate change and storage projects.

H.E. Acharya Devvrat said that increasing water pollution and declining ground water level has emerged as the biggest problem today. He expressed that understanding the naturally-evolving water enhancement system and developing an action plan accordingly was the need of the hour. H.E. Devvrat stressed to invest more in water recycling and rain water harvesting and emphasized that over utilization of irrigation water in agriculture could be checked by natural farming. He congratulated BBMB, Ministry of Water Resources, Central Water Commission, Central Board of Irrigation & Power and the World Bank for organizing a conference on the critical issue of sustainable water management. The Governor also inaugurated an exhibition showcasing the latest products and services.

During his inaugural speech, Mr. U.P. Singh, Secretary emphasized on the demand side of management



of water resources and climate change due to over exploitation of natural resources. He stated that while the demand for freshwater is increasing with the growing population, the decreasing amount of supply is failing to meet the needs of the people. However, this can be reversed if nations and their citizens start integrating water-efficient practices into their daily routine.



To address pressing issues regarding sustainable management of water resources. President Felix Reinders and Secretary General A.B Pandya from ICID also spoke on the occasion. President Reinders emphasized that sustainable development would not be achieved without a water secure world and a water secure world integrates a concern for the intrinsic value of water with a concern for its use for human survival and well-being. A water secure world reduces poverty, advances education and increases living standards, he added.

SG Pandya in his presentation on "Setting up water strategy for India" stated that adopting sustainable water management practices is significant for the entire world, especially for India, in order to build a water secure future. He said that water security also means addressing environmental protection



and the negative effects of poor management. He added that it also concerned with ending fragmented responsibility for water and integrating water resources management across all sectors such as finance, planning, agriculture, energy, tourism, industry, education and health.

The conference witnessed participation of around 400 delegates and a number of experts from reputed organisations

from India and other countries such as Australia, United Kingdom, USA, Spain, Netherlands, Republic of Korea, Canada, Germany and Sri Lanka. As a way forward, the conference reiterated that adopting sustainable water management practices is significant for the entire world, especially for India, in order to build a water secure future.



ICID studies the role of conservation agriculture to address crop residue linked air pollution

Every fall, sometimes during October and November, a noxious fog containing a mixture of dust, carbon and particles covers many parts of Northern India. However, this is particularly burdensome to the denizens of Delhi, India's capital. With a population of 18.6 million, Delhi is the fifth most populous and amongst the most polluted cities in the world.

Satellite images show paddy-stubble burning in the neighbouring states as one of the main causes. The region's Rice-Wheat cropping system provides a narrow window of time to clear fields after paddy harvest to prepare for winter sowing of wheat. However, a crisis looms – ground water tables are falling and climatic change brings uncertain rainfall. For farmers, particularly smallholders, it is all about short-term profits. Their best bet is to light a match. Farmers resort to burning as a low-cost straw-disposal method that accounts for 25-30% of the pollutants. Other factors aggravating the emissions are vehicles and factories, lit garbage, road dust, and all these coupled with stagnant October winds.



In their pursuit to find out as to why the farmers are burning their fields and is there a way to enable the Indian farmers to deliver clean air along with healthy produce (good food), ICID team led by President Reinders, SG Pandya, ED Varma and Dr. Singh Director-KM recently visited several farms in several northern states of India to study the stubble-burning problem and explore alternatives that are being tried on farmers' fields. ICAR-Agricultural Technology Applications Research Institute (ATARI) and Bourlog Institute for South Asia (BISA) made excellent arrangements for these study visits to field projects, research demonstrations and farmers' fields in the area.

The answers point to a complex picture of struggling farmers, a public burdened by dirty air, a government trying to balance livelihood and public health considerations and somewhat uncertain technological and economic solutions. India's farmers feed billions of people, facing down price, pest and weather-

related uncertainties. If anything, they know that they must continuously adapt.

To address the problem of crop residue linked air pollution and implement behaviour change in the farmers in north-west India (particularly Punjab, Haryana and western Uttar Pradesh), farmers are now being encouraged to adopt the Happy Seeder machine (a tractor-mounted device that can be used after rice is harvested to plant wheat directly into straw-laden farm plots) to end the current practice of crop residue burning.

Using the Happy Seeder means that farmers no longer need to till the land to plant their wheat. Instead, they will practice a form of conservation agriculture. The public benefits of the use of the Happy Seeder and this form of agriculture uses water more efficiently, provides healthier soils, reduces carbon affecting the Himalayan glaciers and contributes cleaner air.

Such efforts are now bearing fruits as some farmers have to a great extent stopped rice-straw burning. Water saving of more than 50% has been achieved compared to the traditional flood irrigation method and sub-surface drip irrigation has resulted in reduced weed growth which saves money spent of pesticides as top soil remains dry. Zero tillage has eliminated the need for expensive field preparation. Rice straw provides a very useful soil cover maintaining soil moisture needed for wheat germination





and also conservation of soil heat for better germination. However, there are still many challenges for micro-irrigation adoption at a large scale such as capital cost, ill-defined subsidies to buy equipment, and slow process of subsidy approval due to bureaucratic procedures.

Conservation agriculture is new to farmers. It will require them to change – in how they use equipment and apply water and weedicides. And it will require information, training and incentives to motivate farmers to try new technology. The public extension services and private institutions will need to adjust to deliver the Happy Seeder and make it available at large scales.

ICID team also held interactions with the farmers who have adopted solar-powered micro-irrigation systems and direct seeding of rice, wheat and maize along with new cropping practices such as mulching developed by BISA and ATARI to reduce production costs, increase crop yields, save water and environment.

Technologies also included surface and sub-surface drip irrigation and direct seeding of rice, wheat and maize under no-till conditions; and crop demand-based automated real-time irrigation.

Along the similar lines, Water Technology Center (WTC) in New Delhi has been promoting solar-powered micro-irrigation for onion production in the Alwar region of Rajasthan State. The North Indian markets currently buy onion from the Western State of Maharashtra involving a significant transport cost. This makes onion production in Rajasthan highly competitive and as a result it has captured 25% of the market in very short span of time. WTC has evolved a practical business model by identifying progressive farmers and making them local dealers to sell micro-irrigation equipment supplies in a cluster of 4-5 villages each. ICID officials met these farmers and other beneficiaries to hear their views on this approach. Most farmers were quite satisfied and the wider application of the business model seems very promising.

Another success story is micro-irrigation from the canal using pumping of water and its storage in big tanks and ponds for gravity-driven flow to farmers' fields. This model has been demonstrated in two states – Punjab and Haryana. ICID team visited both the sites and interacted with local stakeholders who seem to be enthusiastic with the success and in one



case the revival of agriculture in Talwara district of Punjab could be attributed to this model. In the Kurukshetra region of Haryana the micro irrigation has prompted local farmers to diversify into horticulture in addition to the traditional rice-wheat cycle. The local Command Area Development Authority (CADA) has played a key role in this success story. The local farmers are in the process of forming a Farmers Producer Company to practice agriculture as a business.

Through these success stories, ICID could identify the catalytic and vital role played by Jain Irrigation Systems Limited, an India based multi-national company working on manufacturing of solar-based micro-irrigation equipment, tissue culture of various horticultural crops, contract farming and research & development. The company works closely with the farmers, local extension and irrigation officials, and promotes capacity building of farmers.

Mr. Bamsey appointed as new Chair of GWP

The Global Water Partnership's (GWP) appointed Mr. Howard Bamsey, former Executive Director of the Green Climate Fund (GCF) as the new Chair of GWP.



Mr. Bamsey, a citizen of Australia, has been a prominent leader in public service and diplomacy in the environmental field, particularly climate change. Mr. Bamsey co-chaired the United Nations 'Dialogue on Long-term Cooperative Action on Climate Change' from 2006 to 2007 and served as Australia's Special Envoy on Climate Change and Deputy Secretary at the Department of Climate Change and Energy Efficiency from 2008 to 2010.

On his new role, Mr. Bamsey expressed that he was excited to be a part of GWP as he had seen the network's ability to mobilize a large and inclusive partnership that takes action on many levels to improve the way water is managed.

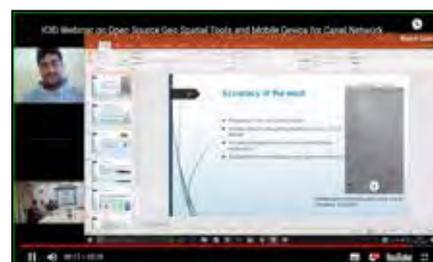
With his broad network and focus on climate change action, GWP congratulates Mr. Howard on his new role and look forward to his leadership style in enhancing their impact and help water management and governance to serve the development agenda more broadly.

Webinar Highlights

14th Webinar: Open Source Geo-Spatial Tools and Mobile Device for Canal Network Digitization

Management of distribution network for a large irrigation project is a challenging task. Many times, the layouts implemented on the ground differ significantly at the local level due to demand of the local population. Over a period of time, the information of the network of old projects due to lack of maintenance gets lost and at the time of rehabilitation, it is needed for estimating the quantum of work as well as to understand the problems arising out of hydraulics and local constraints.

To discuss the same in-depth, Er. Paavan Kumar Reddy Gollapalli (India), an agricultural engineer and ICID Young Professional delivered a webinar on the topic 'Open Source Geo-Spatial Tools and Mobile Device for Canal Network Digitization' on 14 December 2018 to share his experiences and success in



the context of modern technologies that presents a methodology for mapping large irrigation systems through Global Positioning System (GPS) and Geographic Information System (GIS) tools in the public domain.

SG Pandya opened the webinar with his welcome remarks followed by a brief introduction of the speaker. He was joined in by Executive Director Varma, Dr. Singh, Dir-KM and Mr. Madhu Mohanan, Communication Officer from ICID Central Office.

The webinar primarily focused on Canal Network Digitization Studies from Guntur Channel Medium Irrigation Project (using Mobile Device and GPS) and Bhupathipalem Medium Irrigation Project

(using UN-ASIGN application) in the state of Andhra Pradesh, India highlighting the accuracy of the work and adaptability at the field level. Er. Reddy, who is currently volunteering in rural areas to educate the farmers on micro irrigation systems and water management, explained that now a days, capturing of coordinates is possible with all devices which are connected to satellites, but purchasing of GPS device, especially for a single task, is not viable at all times due to economic constraints.

He stated that at the field level, most of the staff are using mobile devices (smartphones). These devices produce the coordinates with sufficient accuracy, which is helpful in capturing the photograph of the required place by enabling the GPS service in the mobile that also uses satellite triangulation.

He explained that the mobile-based data collection is a user-friendly method which makes it easier to collect the ground data and there is zero percent investment on the work output. The open source GIS software (QGIS) and Google Earth are very helpful to get the digitized canal networks in short span of time. He stated that the end product with this method has multiple uses. The raw data means the photographs can show the real scenario of the canals and it can be shown on their original location for assessing the structure status also.

The webinar further deliberated on how mobile device, open sources mobile app and geospatial technology can be used for collecting the ground truth data and how to process the raw data. It concluded with a Q&A session, wherein participants raised their queries to the speaker

concerning irrigations schemes covering huge command areas and long canals. Er. Reddy explained that with the use of mobile devices canal network digitization is possible and also the wealth condition of the structures and encroachments identification is done through location where it has happened.

This is the 14th webinar presented under "ICID Young Professional Series" for its exclusive online audience to share and discuss information in real-time. For those who missed the webinar may visit ICID website to access the live recording <http://www.icid.org/icid_webinar_14.html> supported with presentations and collated resources.



International Training Workshop on Water Accounting

23-26 February 2019 | Ahwaz, Iran

The International Research Program for Irrigation and Drainage-Iran Regional Node (IRPID-IRN) affiliated to ICID is organizing an "International Training Workshop on Water Accounting- Concepts and Tools" with the support of leading institutions and specialists in the field of water accounting to be held from 23-26 February 2019 in Iran (23 February in Tehran; 24-26 February in Ahwaz).

The workshop which is the joint professional collaboration of FAO, ICID and IRPID-IRN will introduce concepts and tools to a wide range of audiences including high-level decision-makers, academics and professionals in the water, agriculture, and environmental sectors.

The Water Accounting (WA) workshop intends to:

- Introduce global experiences, international activities and state-of-the-art of knowledge on water accounting.
- Discuss challenges in developing and implementing water accounting frameworks.
- Highlight the need to apply water accounting frameworks for efficient water resources management at different geographical scales (from farm to catchment).
- Draw the attention of decision-makers at the national level to the use of new concepts and tools for better water resource management.

Well-known and experienced researchers and senior experts in the field of water accounting are being invited as speakers and instructors for the workshop. For any inquires for the WA workshop, please send mails to irpid.iran@icid.org

Bali is calling you...!!

Call for Papers: 3rd World Irrigation Forum (WIF3) & International Workshops

The Indonesian National Committee of ICID (INACID) will host the 3rd World Irrigation Forum (WIF3) and the 70th IEC Meeting from 1-7 September 2019 at the Bali Nusa Dua Convention Centre, Indonesia.

WIF3 aims to formulate a new perspective and strategy for the future of irrigation system and would provide a forum to scientists, researchers, experts and professionals from private and government sectors to network and share experiences and give an excellent opportunity for solutions to be disseminated and recognized by public at large.

Call For Papers

The 'Call for papers' for WIF3 is now available at <http://www.icid.org/WIF3_Call_for_Papers.pdf> for information and abstract submission. The Forum website has been launched and you may access <https://icid2019.com/> for other details of the event.

Theme: Development for water, food and nutrition security in a competitive environment

Papers are invited under the following Sub-themes:

1. Enabling Policy Environment for Water, Food and Energy Security
2. Role of Civil Society and non-state actors with Focus on farmers and Extension Facilities
3. Improving Agricultural Water Productivity with Focus on Rural Transformation

In addition, six international workshops will also be held in Bali:

- Workshop (IOA) on Participatory Irrigation/Drainage Management – Transfer, Approaches and Condition for successful PIDM on **2 September 2019**
- Workshop (M&R) on Modernizing Irrigation Services for Water, Food, and Nutrition Security on **2 September 2019**
- Workshop (SDTA) on Integrated Development of Tidal Areas – An Exchange of Expertise from Basin Perspective on **2 September 2019**
- Workshop (CROP) Improving the Water Use Efficiency and Productivity within the Water-Energy-Food-Nexus on **2 September 2019**
- Workshop (CLIMATE) on Innovation of Developing the Strategy for Impact Assessment of and Adaptation to the Climate Change as the "New Normal" on **3 September 2019**
- Workshop (HIST) on Historical Water Sustainability on **3 September 2019**

Deadline for submission of abstracts is **1 February 2019** for all sessions. All information for "Call for Papers" are available at http://www.icid.org/wif3_intl_call.pdf

****Please Do Not Submit Full Papers at this Stage** as they would not be reviewed**

This is for your information and wide dissemination among the members of your National Committee/Organization and other interested participants.

For more information, please contact:

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Call for Nominations invited for...

3rd World Irrigation and Drainage Prize

The 3rd World Irrigation and Drainage Prize will be presented during the 3rd World Irrigation Forum (WIF3) to be held in Bali, Indonesia from 1-7 September 2019. The Prize carries an honorarium of US \$10,000 along with a 'Citation Plaque'. The triennial World Irrigation and Drainage (WID) Prize instituted by ICID is awarded to dedicated professionals and institutions who have actively contributed to the development of Irrigation and Drainage during the past 15 years supporting increased agricultural production at national, regional and international levels.

More information, including the detailed procedure for nomination and other conditions and criterion for WID Prize along with the nomination form can be accessed at http://www.icid.org/wid_prize.html.

All National Committees are requested to circulate the 'Call for Nominations' widely amongst professionals/teams/institutions within their country and submit the nominations to ICID Central Office latest by **31 March 2019**.

ICID WatSave Awards 2019

ICID is pleased to announce the "Call for Nominations for 2019 WatSave Awards and Recognition of World Heritage Irrigation Structures (WHIS) for the Third World Irrigation Forum (WIF3) and the 70th International Executive Council (IEC) Meeting in Bali, Indonesia from 1-7 September 2019.

WatSave Awards 2019: ICID instituted the 'WatSave Awards' in 1997, presented every year, to recognize outstanding contributions to water conservation or water saving in agriculture across the world. Accordingly, the award given to individuals or a team of individuals are made in respect of actual realized savings and not for promising research results, plans and/or good ideas/intentions to save water. The awards are given in four categories:

- (i) **Technology**
- (ii) **Innovative Water Management**

- (iii) **Young Professionals;** and
- (iv) **Farmer.**

Nominations are invited from individuals/team through National Committees/Committee. The entries are open to all professionals/teams from ICID member countries as well as non-member countries. In case of an entry from a 'non-member' country, the nomination has to be routed through and validated by an active National Committee of ICID, who should be in touch with the nominee and must be aware of his/her work.

World Heritage Irrigation Structures (WHIS) 2019

World Heritage Irrigation Structures (WHIS) 2019: A Task Team is set up every year to select historical drainage/drainage structures as received from various National Committees (NCs) to give them recognition on the lines of World Heritage Sites (as recognized by UNESCO). Nominations are invited from ICID National Committees for selection of "World Heritage Irrigation Structures" (WHIS) that includes both old operational irrigation structures as well as those having an archival value.

A National Committee can nominate more than one structure, using separate nomination form for each. Associated Members and non-member countries can nominate their structures through neighbouring active NCs or by submitting directly to ICID Central Office. The fifth batch of WHIS will be included in the ICID Register of WHIS available at http://www.icid.org/icid_his1.php

The deadline for receipt of the entries for WatSave awards and WHIS from the National Committees along with the completed 'Nomination Form' and related details to the ICID Central Office, New Delhi is **30 June 2019**.

More information including the detailed procedure for nomination and criterion for the awards can be accessed at http://www.icid.org/awards_icid.html.

For any queries, please contact Dr. Sahdev Singh, Director (Knowledge Management) at icid@icid.org.

International Dam Safety Conference 2019

The Central Water Commission (Ministry of Water Resources, River Development and Ganga Rejuvenation, Government of India) in collaboration with Odisha Water Resources Department and the World Bank is organizing the International Dam Safety Conference (IDSC) 2019 on 13-14 February 2019 in Bhubaneswar, Odisha, India.

IDSC is part of the series of Dam Safety Conferences being organized under the aegis of the Dam Rehabilitation and Improvement Project (DRIP) envisaged to provide exchange of knowledge between academia, civil society, government, industry, policy institutes and think-tanks.

The Conference program will include enlightening presentations from leading professionals in the water resources sector, an exhibition of latest technology and services and a study tour to Hirakud dam - the longest earthen dam in India and the biggest artificial lake in Asia. Dam owners, policy makers, dam professionals, institutions, scientists, industry, etc., from within India and around the world are expected to participate in this event to share their knowledge, professional experience, advancement in technology as well as emerging challenges in dam safety management. Several global organizations will be showcasing their technologies, products and services in the exhibition during the Conference.

The conference will have one Plenary Session, seven Technical Sessions and one Industry Session. There will be enlightening presentations during the Plenary Session by eminent dam safety professionals in addition to oral presentations covering various facets of dam safety.

More details about the conference is available at <https://damsafety.in/idsc2019/>

Now Available...!!

Mekong wetland case studies and basin-wide climate change impact

The International Center for Environmental Management (ICEM) is pleased to share the "Mekong wetland case studies and climate change impact" report for water readers and members for their information and use. The detailed case studies of climate change impact and vulnerability at seven Mekong sites are now available

to download on the ICEM website under the 'case studies' tab.

The work stems from a project titled 'Basin-wide Climate Change Impact and Vulnerability Assessment of Wetlands in the Lower Mekong Basin (LMB) for Adaptation Planning' which was carried out few years ago. This work remains highly pertinent to biodiversity conservation and climate adaptation in the Mekong region. Interested members and water readers may kindly access the link <<http://icem.com.au/portfolio-items/wetlands-reports/>> and download the case studies which are of particular interest to them.

A basin-wide climate change impact and vulnerability report is also available in the website under the 'Synthesis reports' tab which brings together the findings from the case studies. To access the case studies in poster format, please visit the link <<http://icem.com.au/portfolio-items/poster-series-wetlands-in-the-lower-mekong-basin/>>.

Training Course for Beginners in Climate Time-Series Analysis

Climate Risk Analysis is giving its 25th Training Course for Beginners in Climate Time Series Analysis to be held from 25 February - 1 March 2019 in Bad Gandersheim, Germany. The course is specifically tailored to the needs of MSc students, Ph.D. students and postdocs, who wish to learn about an important subject (time series analysis), but so far had limited exposure to in-depth mathematical or statistical teaching.

Professional researchers, who wish to update their knowledge, may also join the course. Participants having a background in climatology, ecology, environmental sciences, geosciences, meteorology or hydrology are welcome to apply.

For more information, please visit: <http://www.climate-risk-analysis.com/courses/time-series/25th-Training-Course-for-Beginners-in-Climate-Time-Series-Analysis-2019.html>

Rainwater Harvesting Meeting and Breakfast

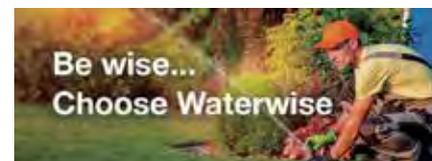


The Rainwater Harvesting Australia Committee is holding an industry breakfast in Sydney on 27 February 2019 at the Novotel in Parramatta to invite and discuss "What is the future of House Design in Australia" - specifically looking at potential additional objectives for BASIX including the urban heat island effect, flooding, river health and loss of green spaces and how house design and architecture can respond to these urgent challenges. Rainwater harvesting is a decentralised solution that can be cheaply and effectively integrated into house design to help meet these challenges.

To register for the event, please visit: <https://www.irrigationaustralia.com>.

[au/events/event/rainwater-harvesting-meeting-breakfast-february-2019](http://www.irrigationaustralia.com.au/events/event/rainwater-harvesting-meeting-breakfast-february-2019)

Waterwise Irrigation Programs - New website launched



Irrigation Australia is proud to announce the launch of a new community-focused website <www.waterwiseprograms.com.au> and Facebook page, which aims to raise community awareness of the Waterwise Irrigation Programs administered by Irrigation Australia (WA Region).

The Waterwise Irrigation Design Shop and Waterwise Garden Irrigator Programs are self-study training and endorsement programs which aim to optimise water use efficiency in domestic irrigation systems. The training within the programs was developed in 2004 by Irrigation Australia (WA Region) and is currently running in Western Australia in partnership with Water Corporation. These programs have been created to assist the community to identify the irrigation professionals following best practice guidelines and striving to achieve maximum water efficiencies in household gardens.

The WA regional pages of the website are now live and feature an extensive business directory allowing the community to search for their local Waterwise irrigation business by location. For more info, please visit: www.wa.waterwiseprograms.com.au

News Buzz: ICID National Committees

IACID (Australia)

Mr. Bryan Ward, Irrigation Australia CEO welcomed Mr. Peter White as the incoming Chair of the SE Queensland Region at a recent breakfast meeting held at the Brisbane Convention & Exhibition Centre. Mr. Peter replaces Previous Chair Jim Phillips and Secretary Kathleen Murray as both stood down from their respective positions. Mr. Peter provided a brief introduction of his irrigation career spanning more than two decades and invited members to participate and work together to provide relevant services to their region.



SLNICID (Sri Lanka)

Meeting with ICID VPH Makin

SLNICID organized a meeting with Vice President Hon. Mr. Ian Makin on 28 November 2018 at Irrigation Department conference room. The meeting was attended by SLNICID President, Secretary and Committee Members and aimed to discuss the update on the activities pertaining to submission details to World Heritage Irrigation Structures (WHIS); training of young professionals; participation in the 69th IEC meeting and the upcoming 3rd World Irrigation Forum (WIF3) in Bali, Indonesia and the future activities to be undertaken by SLNICID.



VPH Makin presented the WHIS plaques (Elahera Anicut, Kantale Wewa and Sorabora Wewa) to the President and Secretary of SLNICID.

New President of SLNICID

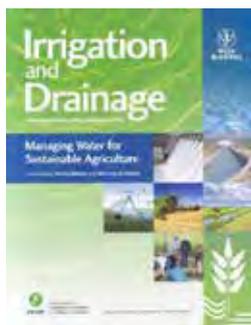
Eng. S. Mohanarajah has assumed charge as the new President of Sri Lanka National Committee on Irrigation and Drainage (SLNICID). He is the Director General of Irrigation



Department, Sri Lanka. SLNICID is one of the founding members of ICID and has always been supportive of ICID's vision and mission by way its active participation in various ICID activities. ICID looks forward to President Mohanarajah's collaborative support and active participation of SLNICID in the activities of ICID. All NCs are requested to take note of the new contact details:

Eng. S. Mohanarajah, President
Sri Lanka National Committee, ICID (SLNICID), Director General
Irrigation Department
230, Bauddhaloka Mawatha
P.O. Box 1138, Colombo 07
Tel : +94 112 584984
Fax : +94-11-250 5890
Email : mohanarajah1960@gmail.com

Irrigation and Drainage Volume 67.5



The latest volume of Irrigation and Drainage journal 67.5, published in December 2018 is now available online. The new volume is FREE via Wiley online library for all ICID Office Bearers, Workbody members and subscribers.

Newly added features include:

- Papers available in easy to read PDF format
- Access to full text of all the articles as well as Tables of Contents and Abstracts published in Irrigation and Drainage since 2001
- Early View service display papers online as soon as they are accepted for publication that are several months earlier than the papers published in print
- Sign up for FREE Wiley Alerts and receive the Table of Contents via email when published online.

For 2018 Wiley has provided each ICID Office Bearer, workbody member and subscriber a unique membership registration number. Your e-mail address is your username and you can choose your own password.

Click for direct access to the page with the papers of this issue of Irrigation and Drainage @ [http://onlinelibrary.wiley.com/journal/10.1002/\(ISSN\)1531-0361](http://onlinelibrary.wiley.com/journal/10.1002/(ISSN)1531-0361)

Events Corner

ICID Events



3rd World Irrigation Forum (WIF3) & 70th IEC Meeting on the theme 'Development for water, food and nutrition security in a competitive environment', 1-7

September 2019, Bali, Indonesia. For more info contact: Ir. Adang Saf Ahmad, CES, President, INACID; Email: inacid.indonesia@gmail.com; adangsaifa@yahoo.com; Website: <https://icid2019.com/>

5th African Regional Conference on Irrigation and Drainage (ARCID), 16-19 March 2020, Morocco on the theme: Sustainable Management of Irrigation



for Improved Resilience of Agriculture in Africa. E-mail: bartali.h@gmail.com, anafide.ma@gmail.com; Website: <http://5arcid.ma/>

24th ICID International Congress & 71st IEC Meeting, 22-24 September 2020, Sydney, Australia. For more info contact: Mr. Bryan Ward, Chief Executive Officer, Irrigation's Australia



Limited (IAL) (Incorporating IACID); Email: Bryan.ward@irrigation.org.au; info@irrigation.org.au; Website: <http://www.icid2020.com.au>

Other Events

International Dam Safety Conference (IDSC) 2019, 13-14 February 2019, Bhubaneswar, Odisha, India. For more

details, please visit: <https://damsafety.in/idsc2019/>; Email: idsc-cwc@gov.in

4th Water Sensitive Cities Conference 2019: Delivering the transition to water sensitive cities: approaches, activities and achievements, 26-28 March 2019, Brisbane. For more details, please visit: <https://watersensitivecities.org.au/content/wsc-conference-2019/>

Water for Food Global Conference 2019 by Daugherty Water for Food Global Institute (DWFI), 29-30 April 2019, in Lincoln, Nebraska, USA on the theme: Water for a Hungry World: Innovation in Water and Food Security. For more details, please visit: <https://waterforfood.nebraska.edu/news-and-events>.

2019 Floodplain Management Australia National Conference: A National Call to Action: Making Australia Flood Safe, 14-17 May 2019, Canberra, Australia. For more details, please visit: <https://floodplainconference.com/>

ISMAR 10: International Symposium on Managed Aquifer Recharge, 20-24 May 2019, Madrid, Spain. For more details, please visit: <http://ismar10.net>; Email - info@ismar10.net

MinWat 2020: 3rd International Multidisciplinary Conference on Mineral Waters: Genesis, Exploitation, Protection, and Valorisation, 31 March-3 April 2020, Caserta, Italy. For more details, please visit: <http://www.iahitaly.it>; Email: segratario@iahitaly.it