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International Commission on Irrigation and Drainage

Call for Papers

International Workshop on

“The Water-Energy-Food-Nexus: Implementation and Examples of Applications”

04 October 2022: 08:45-10:30 and 11:15 to 13:00 hours (TBC)

Adelaide, Australia

I. Background:

The world’s population is expected to grow from 6 billion today to at least 9 billion by the year 2050. The population growth, urbanization and industrialization are imposing rapidly growing demands and pressures on the water and energy resources and causing in many cases imbalance between supply and demand. This growing imbalance has led to shortages, competition, and other environmental pressures. Achieving food, water and energy security as well as improving the quality of life, while preserving the environment, will continue to pose major challenges to Scientists, Decision makers and Technicians in the next few decades. Irrigation globally consumes around 70% of freshwater resources. This water is becoming increasingly scarce. Therefore, improving water and energy use efficiency and productivity in agriculture practices will be significant and valuable.

The interdependance of the water, food and energy is well known since early civilization. Farmers had to lift water using waterwheels run by cattle to bring water to the surface and irrigate fields. The present challenge is how to produce more crop per drop per kwatt energy per unit area of land. This is the essence of new focus on the nexus.

II. Objectives: This Workshop will bring together experts from all over the world to share information, experience, and views on how to implement the water-energy-food nexus in agriculture. The focus will be on the practicle application and address the three elements of the Nexus: Water, Food and Energy.

III. Theme/Sub-themes:

The main theme of the International Workshop of Working Group is “The Water-Energy-Food-Nexus: Implementation and Examples of Applications”.

Sub-topics/ Sub-themes: (i) Water-Energy-Food-Nexus at field, regional and country scales. Examples of applications; (ii) How the environment and ecosystem services benefit from the Nexus; (iii) Economic analysis of food production within the nexus; (iv) Management practices that promote the Nexus; and (v) Institutional and Governance issues in implementing the Nexus.

Abstracts / papers are invited and encouraged from professionals, researchers, experts, practitioners, managers, and policy-makers on the State, Province or Local levels based on the mandate of the WG.

IV. SCHEDULE FOR SUBMISSION OF ABSTRACTS / FULL PAPERS

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|--|------------------|
| i. Submission of abstracts (max. 600 words) | : 30 May 2022 |
| ii. Notification of acceptance | : 15 June 2022 |
| iii. Submission of full papers (max. 10 pages of A-4 size) | : 30 July 2022 |
| iv. Notification of acceptance of full papers | : 01 August 2022 |

The Workshop is being organized by ICID's Working Group on Water Food Energy Nexus (WG-WFE_N) during the 24th ICID Congress and 73rd International Executive Council (IEC) Meeting from 03-10 October 2022 at Adelaide, Australia.

Contact-coordinates:

Workshop Chairman: Dr Ragab Ragab, President of ICID, Chairman of the Working Group on "Water-Energy-Food Nexus" and Fellow at UK Centre for Ecology & Hydrology, UKCEH, UK email: ragab@icid.org

Dr K Yella Reddy, Vice President Hon. ICID; Dean, AMGR Agricultural University; Secretary, WG on "Water Energy-Food Nexus" (E-mail: yellark@gmail.com); and Former Director (A&R), WALAMTARI, Hyderabad, India.

Workshop Coordinator: **Er. Balasaheb Anantrao Chivate**, Director (Technical), International Commission on Irrigation and Drainage (ICID) (E-mail: icid@icid.org), New Delhi. India



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73rd International Executive Council (IEC) Meeting & 24th International Congress on Irrigation and Drainage

Adelaide, Australia, 03-10 October, 2022

International Workshop on “The Water-Energy-Food-Nexus: implementation and examples of applications”

FIRST ANNOUNCEMENT and CALL FOR PAPERS

This Workshop is being organised under the auspices of the International Commission for Irrigation and Drainage’s (ICID) Work Group on “Water-Energy-Food Nexus”. It will be held in conjunction with ICID’s 24th ICID congress and the 73rd International Executive Council Meetings.

Background

The world’s population is expected to grow from 6 billion today to at least 9 billion by the year 2050. The population growth, urbanization and industrialization are imposing rapidly growing demands and pressures on the water and energy resources and causing, in many cases, imbalance between water supply and demand. This growing imbalance has led to shortages, competition, and other environmental pressures. Achieving food, water and energy security as well as improving the quality of life, while preserving the environment, will continue to pose major challenges to scientists, decision makers and technicians in the next few decades. Irrigation globally consumes around 70% of freshwater resources. This water is becoming increasingly scarce. Irrigation requires energy. Therefore, improving water and energy use efficiency and productivity in agriculture practices will be valuable.

The interdependence of the water, food and energy is well known since early civilization. Farmers had to lift water using waterwheels run by cattle to bring water to the surface and irrigate fields. The present challenge is how to produce more crop per drop per kwatt energy per unit area of land. This is the essence of new focus on the nexus.

Objective

This Workshop will bring together experts from all over the world to share information, experience, and views on how to implement the water-energy food nexus in agriculture. **The focus will be on the practical application of the Nexus.** The papers should show examples of application and adress the three elements of the Nexus: Water, Food and Energy.

Workshop Themes

- (a) Water-Energy-Food–nexus at field, regional and country scales. Examples of applications.
- (b) How the environment and ecosystem services benefit from the Nexus.
- (c) Economic analysis of food production within the nexus.
- (d) Management practices that promote the Nexus.
- (e) Institutional and Governance issues in implementing the Nexus.

Workshop Committee

- ✚ **Dr Ragab Ragab**, President ICID and Chairman of the Working Group on “Water-Energy-Food Nexus”, ICID. Fellow at UK Centre for Ecology & Hydrology, UKCEH, UK
- ✚ **Dr K Yella Reddy**, Vice President Hon. ICID; Dean, AMGR Agricultural University; Secretary, WG on “Water Energy-Food Nexus”; and Former Director (A&R), WALAMTARI, Hyderabad, India.
- ✚ **Er. Balasaheb Anantrao Chivate**, Director (Technical), International Commission on Irrigation and Drainage, ICID. India

Registration and travel information are available at: (<https://www.icid2022.com.au/icid-home/>).

“The Water-Energy-Food-Nexus: implementation and examples of application”, Adelaide, Australia,2022

Name (Mr/Ms/Dr):

Position:

Organisation:

Full Address:

City:

Postal Code:

Country:

Tel.:

E-mail:

I would like to attend the workshop

I would like to present a paper

I would like to present a poster

Entitled:

E-mail these details and a 600-word abstract (as a WORD file) as soon as possible and **not later than 30th May, 2022** to Er. B. A. Chivate at bachivate@icid.org ICID Central Office, with CC to Dr. Kaluvai Yella Reddy at yellark@gmail.com

Acceptance for presentation will be sent during June 2022.





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International Commission on Irrigation and Drainage

**International Workshop on
“Public-Private-Partnership (PPPs) in Irrigation and Drainage Operation and
Maintenance toward sustainable Irrigated Agricultural water management”**

04 October 2022, 14:00-18:15 hours (TBC)

Adelaide, Australia

Call for Papers

I. OBJECTIVE

The objective of this workshop is to follow-up the IOA Workshop in Denpasar, Bali Indonesia that was conducted on 2nd September 2019 on the theme “Participatory Irrigation/ Drainage Management – PIDM and Management Transfer, Approaches and condition for successful PIDM” to provide subsequently for a wider platform for irrigation and drainage professionals in the scope of activities related to the comprehensive mandate of WG-IOA, particularly in this proposal related with Mandate 3, which is “Public-Private Partnership (PPPs) in irrigation and drainage operation as well as Mechanism for Cost Recovery”, covering among others: possibilities of and requirements for successful Public-Private Partnerships (PPPs) in irrigation/ drainage operation and management; methods and mechanisms for charging of irrigation/ drainage services; and determination of the level of cost recovery. The workshop materials will therefore be based on review experiences and approach with IOA in the countries or regions that are having practical experiences on PPPs under the PIDM or IDMT programs both on conventional irrigation as well as on micro-irrigation technology practices toward sustainable agriculture water management.

II. SCOPE OF THE WORKSHOP

Based on review and scrutiny of methodology and approach for appropriate implementation of Mandate 3 of WG-IOA, the scope of this workshop will only be focused on PPPs aspects related to institutional and organizational aspects of IDM schemes for possible up to date with new IOA developments, methodologies, and approaches toward sustainable agriculture water management, including the possibility of cost recovery of O&M of irrigation and drainage infrastructures. The workshop materials will then be based on a review of experiences and implementation approaches with IOA targeted to managers of irrigation and drainage schemes in the countries or regions that are represented based upon Organizational Setup with special scrutiny on I&O aspects, particularly related to Implementation practices of PPPs in Irrigation and Drainage Management as well as/or Irrigation Management Transfer covering approaches and conditions for successful PPPs under Irrigation/Drainage Management (PIDM) program, approaches and conditions for successful irrigation/ drainage management transfers (IDMT) by means of PPPs, including; legislation and institutional requirements for implementation of PPPs with full or partial recovery of O&M costs of irrigation and drainage systems through water users associations WUAs, considering IOA Aspects of PIDM as well as

IDM transfer for Micro Irrigation system. On top of these, the discussions are also expected to cover the capacity of the farmer to recover the sustainable O&M budget and resolving of water management problems; O&M Technology Practices, integrated working relationship with the related stakeholders; and capacity building as well as capacity development in relation with I&O structure versus sustainability of the routine implementation of integrated capacity development amongst the relevant stakeholders.

The Working Group on Institutional and Organizational Aspects of Irrigation / Drainage System Management (WG-IOA) is organizing a Workshop during the ICID 24th International Congress and 73rd International Executive Council (IEC) meeting from 3-10 October 2022 in Adelaide, Australia.

III. THEME /SUB-THEMES

The main theme of the Workshop is “Public-Private-Partnership (PPPs) in Irrigation and Drainage Operation and Maintenance toward sustainable Irrigated Agricultural water management”

Sub-topics/ sub-themes:

1. **Topic – 1:** PPPs Approaches and conditions for successful IOA toward sustainable O&M of Irrigation and Drainage; including legislation and institutional requirements for PPP application by virtue of integrated working relationship amongst land ownership of irrigation and drainage systems and water users associations (WUAs).
2. **Topic – 2:** PPPs approaches and conditions of IOA for successful irrigation/ drainage management transfers arrangement; including legislation and institutional requirements for PPP application, a delegation of responsibilities, and/or ownership of irrigation and drainage systems to water users associations
3. **Topic – 3:** Legislation and institutional requirements for transferring of responsibilities and/or ownership of irrigation and drainage systems to water users associations (WUA) through PPPs Approach.

The abstracts/papers are invited from professionals, researchers, experts, practitioners, managers, and policy-makers on the first level (National, inter-state, inter-province, or inter-basin) based on the mandate of the WG and are encouraged.

IV. SCHEDULE FOR SUBMISSION OF ABSTRACTS / FULL PAPERS

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| i. Submission of abstracts (max. 300 words) | : 30 May 2022 |
| ii. Notification of acceptance | : 15 June 2022 |
| iii. Submission of full papers (max. 10 pages) | : 30 July 2022 |
| iv. Notification of acceptance of full papers | : 12 August 2022 |

Contact coordinates:

Workshop Chairperson: Dr. Hafied A. Gany, P.Eng. Chairman, WG-IOA (hafiedgany@yahoo.com; hafiedgany@gmail.com)

Workshop Coordinator: Er. Harish Kumar Varma, Executive Director, ICID Central Office (icid@icid.org)



International Commission on Irrigation and Drainage

Call for Papers

International Workshop on Modernizing Irrigation and Drainage Services

04 October 2022: 14:00-18:15 hours (*tbc*)
Adelaide, Australia

I. OBJECTIVE

The main theme of the International Workshop is Modernizing Irrigation and Drainage with a focus on the arrangements for provision of irrigation services. Arrangements for upgrading irrigation and drainage services go beyond rehabilitation of infrastructure to include the institutional and management arrangements required to enable irrigation supplies responsive to farmer's requirements. The objective of the workshop is to bring together irrigators, system operators and researchers to present and discuss the current state of knowledge and experiences in creating irrigation and drainage services that are responsive to the changing needs of farmers and the environments in which irrigation and/or drainage takes place.

II. SCOPE OF THE WORKSHOP

The increasing frequency and severity of climate extremes (floods and droughts) are placing new and increasingly complex demands on the operators and users of irrigation and drainage system in many countries. Existing investments in irrigation and drainage systems are considerable but in many countries these investments are underperforming. It is essential to ensure that irrigation and drainage services are designed, developed, managed, maintained, and upgraded appropriately to support farmers achieve gains in their production and income. Improved irrigation services are also essential for nations to obtain direct, indirect, and induced economic benefits from food security and profitable agriculture. By 2050, global food production will need to be, approximately, double the production in 2005, with irrigated agriculture contributing a substantial proportion of this increase. Simultaneously, agriculture will have to make better use of increasingly contested water resources. Improving irrigation and drainage services will be essential to achieve water, food and nutrition security and to achieve the sustainable development goals by 2030.

The ICID Working Group on Modernization and Revitalization of Irrigation Schemes (WG-M&R) investigates and disseminates information on new developments in modernization and revitalization of irrigation services. Members of WG-M&R have developed a working definition of Modernization and is collating case studies of modernization in different settings. This workshop is a venue for professionals involved in the provision and utilization of irrigation and drainage services to discuss case studies of modernization, including research and modernization of operational irrigation and drainage systems. The International Workshop will bring together researchers and practitioners to discuss the state of the art of modernization.

Proceedings of the workshop, combined with earlier case studies, will form the core of WG-M&R outputs, an ICID publication on Guidelines for Modernization of Irrigation and Drainage Services.

The Workshop is being organized by ICID's Working Group on Modernization and Revitalization of Irrigation Schemes (WG-M&R) during the ICID 24th International Congress and 73rd International Executive Council (IEC) meeting from 3-10 October 2022 in Adelaide, Australia.

III. THEME /SUB-THEMES

The main theme is examples and recommendations on processes for modernizing Irrigation and Drainage Services over the coming decades in the context of the likely evolving nature of irrigated agriculture in anticipation of changing economics, demographics, and climates.

Sub-topics/ sub-themes:

1. Case studies of modernization approaches, including conversion of open channels to pipelines (low or high pressure), increasing use of communication technologies and system automation; capacity development and institutional development; information systems, such as remote sensing and big-data applications.
2. Application of asset management approaches to increase the sustainable operation of irrigation and drainage systems for provision of responsive agricultural water management services. Examples of evolving norms and processes for operation and maintenance of irrigation and drainage systems and services.
3. Developing effective institutions for irrigation services, including capacity building of different stakeholders.

Abstracts / papers are invited from professionals, researchers, experts, farmers, system operators, managers, and policy-makers responsible for provision of irrigation and drainage services at different scales, including individual farm level operators through irrigation schemes to provincial, national and inter-state level water resource systems.

IV. SCHEDULE FOR SUBMISSION OF ABSTRACTS / FULL PAPERS

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| (a) Submission of abstracts (max. 300 words): | 30 May 2022 |
| (b) Notification of acceptance: | 15 June 2022 |
| (c) Submission of full papers (max. 10 pages): | 30 July 2022 |
| (d) Notification of acceptance of full papers: | 12 August 2022 |

CONTACT COORDINATES:

- ✚ **Workshop Chairman:** VPH Ian W Makin, Chairman of WG-M&R (ianwmakin@gmail.com)
- ✚ **Workshop Coordinator:** Er. Harish Kumar Varma, Executive Director, ICID CO (icid@icid.org)





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International Commission on Irrigation and Drainage

Call for Papers

International Workshop on “Managing, on the Regional, State or Local Level, Water Scarcity Resulting from Conflicting Demands”

04 October 2022: 08:45-10:30 and 11:15 to 13:00 hours (TBC), Adelaide, Australia

I. SCOPE

Water scarcity is both a natural and a human-made phenomenon. At the current consumption rate, it is projected that by 2025, two-thirds of the world's population may face water shortages. Water shortages may be caused by climate change, increased population, increased recognition of environmental needs for water and increased human demand. Water scarcity can be in the form of physical water scarcity and economic water scarcity. Physical water scarcity refers to a situation where natural water resources are unable to meet a region's demand and economic water scarcity is a result of poor water resources management.

Throughout the world, additional demands are being placed on finite water resources. These additional demands are usually competing with existing agricultural water uses. Managing water scarcity when there are conflicting demands can sometimes be accomplished on State, or regional level as well as local water user organization level or even between local water users. The ICID WG on Managing Water Scarcity under Conflicting Demands (WG-MWSCD), established in 2016, has a mandate to organize an international workshop to gather case histories on the topic and to review and analyze information from those case histories to determine any commonality. The WG will then prepare an overview paper on the topic for publication. The Workshop will provide an opportunity to further the theme of the 24th ICID Congress, particularly under the Sub-questions 62.3: Water Trading and 63.1: Social Scale Dialogue. This Workshop also will fit nicely into the conflicting demands concept of the Special Session.

The objective of this workshop is to obtain input from member countries of case histories on managing water scarcity under conflicting demands. The data collected from the workshop will be used for output of working group.

II. THEME/SUB-THEMES:

The main theme of the International Workshop of WG-MWSCD is “**Managing, on the Regional, State and Local Levels, Water Scarcity Resulting from Conflicting Demands**”.

SUB-TOPICS/ SUB-THEMES:

1. **Technical level:** Assessment of water use in different sectors for understanding water scarcity at different scales (regional and local).
2. **Management level:** Holistic and participatory best management practices can be used by different levels of users (organization and individual) at different scales.
3. **Policy level:** Legal or policy-based approach for solving conflict situations, including water trading, etc.
4. Integration of technical, management and policy level approaches.

Abstracts / papers are invited and encouraged from professionals, researchers, experts, practitioners, managers, and policymakers on the State, Province or Local levels based on the mandate of the WG. The Authors who have already submitted their abstracts previously for the workshop of the group need not resubmit their abstract again.

III. SCHEDULE FOR SUBMISSION OF ABSTRACTS / FULL PAPERS

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|------|---|---|----------------|
| i. | Submission of abstracts (max. 300 words) | : | 30 May 2022 |
| ii. | Notification of acceptance | : | 15 June 2022 |
| iii. | Submission of full papers (max. 10 pages) | : | 30 July 2022 |
| iv. | Notification of acceptance of full papers | : | 12 August 2022 |

The Workshop is being organized by ICID's **Working Group on Managing Water Scarcity under Conflicting Demands (WG-MWSCD)** during 24th ICID Congress & 73rd International Executive Council (IEC) meeting from 3-10 October 2022 at Adelaide, Australia.

CONTACT COORDINATES:

1. **Workshop Chairman:** VPH Franklin E. Dimick, Chair WG-MWSCD (E-mail: frankdimick@gmail.com)
2. **Workshop Coordinator:** Er. Harish Kumar Varma, Executive Director, ICID New Delhi (E-mail: icid@icid.org)

