

**AGENDA FOR THE INFORMAL MEETING OF THE
WORKING GROUP ON IRRIGATION WATER MANAGEMENT & DEVELOPMENT (WG-IWM&D)**
04 September 2024, 08:30-10:00 hours (Session I) and 10:30-12:00 hours (Session II)
Sydney, Australia

Strategy Theme: Irrigation and Drainage

WG-IWM&D Agenda Item 1: A Brief Report on the Restructuring of WG by the Chair

1. At the 74th International Executive Council (IEC) meeting in Vizag (India), a proposal for the restructuring of the Working Groups was discussed and approved. Among the existing 18 working groups, 9 working groups completed their mandate in November 2023. The remaining working groups proposed to be structured into 11 new working groups under four themes: (1) Irrigation and Drainage; (2) Natural Resources; (3) Climate Change and impacts; and (4) Sustainable Development. Under these four themes, the WG-SON-FARM has been included in theme 1 (Irrigation and Drainage), and three working groups viz. WG-WATS, WG-M&R, and WG-IDM have been integrated with the WG-SON-FARM. As per the structure approved by PCTA, a new group - Working Group on Irrigation Water Management and Development (WG-IWM&D) is being formed integrating four WGs - WG-SON-FARM, WG-WATS, WG-IDM and WG-M&R.

2. Dr. Randev will provide a brief report on the restructuring of the new WG-IWM&D.

WG-IWM&D Agenda Item 2: Discussion on the Scoping Document

3. In April 2024, Dr. Randev, Chair of erstwhile WG-SON-FARM prepared and shared the draft Scoping Document for the establishment of the new WG-IWM&D with the ICID Central Office. After formatting the Scoping Document, the ICID Central Office shared it with the Chair, Vice Chair, and Secretary of WG-WATS, WG-M&R, and WG-IDM for their comments and suggestions (refer **Annex 1**). During the Australia meeting, members may discuss the Scoping Document and send the final version to PCTA for approval.

4. In February 2024, the ICID Central Office informed the decision of PCTA about the establishment of a new WG-IWM&D with all members of WG-SON-FARM, WG-WATS, WG-M&R, and WG-IDM and requested them to confirm their membership for the new WG for which most of the members have agreed to join the new WG. In March 2024, Prof. Xuebin Qi (China) proposed a new nomination of Prof. Ping Li (China) for the membership of the new WG however, endorsement from the Chinese National Committee (CNCID) is awaited. The following new nominations have been received for the membership of the new WG-IWM&D:

- (a) Dr. Ching-Tien Chen (Chinese Taipei Committee)
- (b) Dr. Shao-Yiu Hsue (Chinese Taipei Committee)
- (c) Dr. Chih-Hung Tan (Chinese Taipei Committee)
- (d) Dr. Peng-Jui Wang (Chinese Taipei Committee)
- (e) Dr. Areeya Rittima (Thailand)
- (f) Dr. Yutthana Talaluxmana (Thailand)

5. The erstwhile WG-SON-FARM, WG-WATS, WG-M&R, and WG-IDM membership are given in **Annex 2** (refer to the electronic version for the latest list). New nominations, if any, for the membership received, will be dealt suitably after the meeting.

WG-IWM&D Agenda Item 3: Election of Chair, Vice Chair, and Secretary of Restructured New WG

6. The group members may like to discuss and elect a new Chair, Vice Chair, and Secretary for the new WG during the meeting.

WG-IWM&D Agenda Item 4: Road Map to ICID Vision 2030 - Status of Activities on Irrigation Water Management & Development

7. The Action Plan of the Road Map to ICID Vision 2030 of the erstwhile WG-SON-FARM, WG-WATS, WG-M&R, and WG-IDM is given in **Annex 3**. The group will discuss and prepare the new Action Plan of the Road Map to ICID Vision 2030 as per the mandate of the newly established WG-IWM&D at the meeting.

WG-IWM&D Agenda Item 5: Activities of the erstwhile Working Group – Publication/ Report/ Guidelines

8. The new WG will review and undertake the pending activities of the erstwhile working group of WG-SON-FARM, WG-WATS, WG-M&R, and WG-IDM.

WG-IWM&D Agenda Item 5.1: Publication by erstwhile WG-SON-FARM

9. In February 2024, Mr. Taku Mori informed the ICID Central Office that the position paper “Sustainable Irrigation and Agriculture Water Use in Japan” is under finalization and will send the final version before submitting it to the IRD Journal. Mr. Taku Mori will provide further updates at the meeting.

10. Dr. Hossein Dehghanisani from Iran is finalizing a paper entitled “Micro Irrigation under Saline Conditions”. The item was not discussed because Dr. Hossein was not present at the Vizag meeting in November 2023. The group may like to discuss the finalization of the paper at the meeting.

11. During the Vizag meeting, the group noted that Dr. Yufeng Luo (China) has published papers on the crop water requirements and irrigation demands for rice in the light of future rainfall and worked on a multi-objective optimization model to optimize rice irrigation modes along with a proposed reinforcement learning approach to irrigation decision-making for rice itself using weather forecasts. After discussion, Dr. Yufeng Luo has agreed to write one position paper. Dr. Yufeng Luo will provide further updates at the meeting.

WG-IWM&D Agenda Item 5.2: Pending Activities of erstwhile WG-WATS

12. In February 2024, Engr. Rafat Nael, Chair of erstwhile WG-WTS (Iraq) has proposed to include the following points in the new WG - (a) water accounting and irrigation auditing and Water productivity, (b) irrigation water measuring devices, (c) various methods and techniques used for water saving in irrigation and policies and strategies, (d) WatSave Awards.

13. **Survey on Water Charging Policies:** During the Vizag meeting, Engr. Rafat Nael Al-Intaki, Chair of erstwhile WG-WATS made a presentation on the results of the survey on water charging policies received from the National Committees of China, France, Somalia, the United States, and Iraq (reviewing the reality of Water Charging Policies).

WG-IWM&D Agenda Item 5.3: Publication by erstwhile WG-M&R

14. **Guidelines on modernization:** During the Vizag meeting, VPH Ian Makin, Chair of erstwhile of WG-M&R summarized the progress towards completion of the Guidelines on “Modernization of Irrigation and Drainage Services” noting drafts of most sections being edited for consistency. The group proposed to complete the final (1st edition) in early 2024 and future updates will be produced under the new WG.

15. **Develop norms of O&M of Irrigation systems:** Ms. Mona Liza Delos Reyes informed that a total of 25 responses to the questionnaire had been received and encoded into SPSS for analysis. These have been encoded into SPSS software, and the data set has already been shared with other members working on the norms for comments. Dr. Reyes had been heavily committed to other work for the past few months but would seek to complete the analysis of the information in the coming months.

16. During the Vizag meeting in November 2023, WG-M&R proposed the following activities to PCTA:

- (a) The completion of the Guidelines continues with the current authors (assuming the willingness of individuals) under the mandate of a new WG, but published as an output of the WG-M&R
- (b) The new WG considers how (and if) to complete the Norms and Processes study.
- (c) Finalize the Proceedings of the International Symposium by the members of the WG-M&R with authors of the papers and ICID Central Office as a publication of the WG-M&R
- (d) Modernization of Irrigation and Drainage Services is of critical and growing importance to the sector in the efforts to achieve food security in an increasingly resource-constrained environment. The challenges that climate change and agricultural demographics pose to secure food production will continue to mount. The group requested PCTA to ensure that work on Modernization remains a central topic of the ICID program.

WG-IWM&D Agenda Item 5.4: Publication by erstwhile WG-IDM

17. The new WG may like to discuss the following pending activities of the erstwhile WG-IDM during the meeting:

- (a) **Goal A - Strategy A1 - Activity 1.1.** “Develop a program for introducing standards for irrigation systems”, Dr. Wang-Shen Wei (Chinese Taipei Committee) agreed to submit the draft of the report by November 2023. Dr. Sheng-Wei/ Chair will provide further updates at the meeting.

- (b) **Goal A -Strategy A1 – Activity 1.2.** “Report or case studies on recent developments in irrigation drainage management” - Mr. Ahmet Seren made a presentation on “Irrigation Development & Management Activities in Turkey” during the Adelaide meeting. Mr. Ahmet Seren will provide further updates at the meeting.
- (c) **Goal B -Strategy B1 – Activity 1.14.** “Report on South-South cooperation for capacity development in the field of irrigation management”, members agreed to confirm with Ms. Mary Jean Gabriel the contents of the report through e-mail discussion/ virtual meetings.
- (d) **Goal C - Strategy C4- Activity 4.17.** “Overview paper on the Irrigation Development for publication in Irrigation and Drainage (IRD)”, the item was transferred to Dr. Sheng-Wei Wang. Dr. Sheng-Wei will provide further updates at the meeting.
- (e) **Goal B - Strategy B3 – Activity 3.1.** “Assess methods and develop guidelines on relevant water balance approach”, Dr. Amgad Elmahdi (Australia) agreed to submit the draft by November 2023. Dr. Amgad will provide further progress on the preparation of the guidelines at the meeting.
- (f) **Goal A - Strategy A6- Activity 6.7 –** “Identify drivers and social resistances within the systems to improve Irrigation management”, the draft was submitted by Mr. Ahmet Seren however, a response from Mr. Ian Makin is awaited. Mr. Ahmet Seren will provide further updates at the meeting.
- (g) **Goal C - Strategy C1 - Activity 1.3.** “Organize Workshop, Seminar, and Symposium on Water Balance Approach”, Dr. Amgad Elmahdi (Australia) agreed to hold a symposium before the end of November 2023. Dr. Amgad will provide further progress on the preparation of the guidelines at the meeting.
- (h) **Goal D - Strategy D2 - Activity 2.3.** “Investigating and documenting the social and economic impacts of irrigation systems” - Dr. Akie Mukai (Japan) submitted the draft report and also made a presentation during the WG meeting. The group reviewed the contents and proposed that Dr. Akie will revise and submit the report after getting feedback from the WG members by November 2023. Dr. Akie will provide further updates at the meeting.
- (i) **Goal E - Strategy E6 - Activity 6.2.** “Investigate and report on the state of research, barriers or locks and promising paths in the field of irrigation management” was discussed among the WG members. Dr. L.B. Roy prepared and shared “A Table of Contents” with the erstwhile WG-IDM Chair. Dr. Roy will provide further updates at the meeting.

WG-IWM&D Agenda Item 6: Any Other Business (with Permission of Chair)

18. **ICID Members' Profile Section:** As a new initiative, ICID has launched a new website (<https://icid-ciid.org>) as part of ICID's 70th Anniversary Celebration to meet the new web technologies. One of the newly added web features provides WG members access to their profile section using their dedicated account. ICID CO vide email dated 9 July 2021 <<https://icid.bmeurl.co/C7D4D2E>> informed all members on how to access their accounts and change their passwords to maintain accuracy. Members are requested to review and update their information using their credentials and help us to maintain accurate information. For more information, please refer to inside back cover page.

19. **World Irrigation and Drainage Schemes (WI&DS):** ICID has taken the initiative to document the development of irrigation and drainage schemes in the world by establishing an online Register on “World Irrigation and Drainage Schemes (WI&DS)”. WI&DS will fulfil the need for a much-awaited global repository of information in systematic irrigation and agricultural water management. Irrigation projects having 5000 Hectares and above of Command Area can submit their information for inclusion in the register. The irrigation projects approved by the National Committee/ ICID Central Office for inclusion are entitled to Certification. Chair will encourage members to urge all irrigation and drainage scheme owners, managers, and researchers across the world and especially in their respective countries to contribute to the register. The review process and other details are outlined on the portal <<https://wip.icidevents.org/>> in detail.



NOTES FOR CHAIRPERSON:

1. Draft minutes of this meeting to be submitted to ICID Secretariat at Sydney, Australia after the meeting.
2. Chair to participate and present the WG report to PCTA meeting on 06 September 2024.

**WORKING GROUP ON
IRRIGATION WATER MANAGEMENT AND DEVELOPMENT (WG-IWM&D)**

SCOPING DOCUMENT

1. Introduction and Rationale

- 1.1 Water scarcity has been showing an increasing trend world over with the passage of time due to increased demand for water in its multiple uses. During the developmental process in Water Management, modernization of existing methods of irrigation has been leading to an increase in water use efficiency thereby leading to overall irrigation efficiency and water saving. More so, higher crop productivity has been obtained under the irrigated situations as compared to the rainfed situation, therefore global water scarcity and increased demand for food on account of increasing population can be met only by increasing the extent of irrigated areas and water use efficiency. Irrigation water from its source is conveyed up to a farm and subsequently applied to crops through various irrigation methods- surface (basins, furrows, and border strips), sprinkler and micro irrigation. Vast amount of water goes waste if it is not applied efficiently and uniformly all over the field. Improperly planned, designed, and laid/ installed irrigation system leads to losses such as deep percolation, runoff, evaporation, and wind drift affecting the performance of the system. Today a vast range of sprinkler and micro irrigation technology is available to fit all types of soil, crops, climates, and farm sizes. Modern micro irrigation systems can achieve as high as 95% application efficiency leading to significant water saving. Knowing the fact that the major share – about 70-90% of the fresh and groundwater withdrawals is being consumed by the agriculture sector, the multi-sectoral use of water requires more improvements in the existing types and methods of irrigation so that crops' productivity can be achieved up-to the potential yield levels of germ plasm. Thus, in order to sustain over all agriculture sector and optimize the economic and environmental benefits in arid and semi-arid areas, the 'relative' sustainability of all the agricultural inputs needs to be developed over a period of time by addressing the following issues:
- (a) **Water Accounting** (conjunctive availability/Supply of **surface** and **groundwater**, demand for and distribution of available irrigation water; identification of gaps); **Irrigation Auditing** covering irrigation scheduling as per cropping patterns highlighting gaps in demand/supply; and **water use or irrigation efficiency**;
 - (b) **Organizational and institutional arrangements** covering **policy issues** in managing and developing irrigation water through **developmental schemes/systems**;
 - (c) **Off and On-Farm irrigation structures** and water distribution system networks' designs, installation, operation and maintenance ;
 - (d) **Technical monitoring of soil moisture** for enhancing water infiltration and retention capacities of soils leading to water saving;
 - (e) **Trade-offs** among on farm irrigation technologies, socio-economic and environmental benefits up to optimum level of irrigation water use;
 - (f) **Use of new technologies for sustainability** like automation, drones, artificial intelligence, etc. in management of within/transboundary surface and groundwater in order to sustain the cost-effective use of irrigation water and overall efficiency improvement
 - (g) **Performance monitoring and evaluation of** irrigation schemes/systems for **making actionable recommendations** on existing technical efficiency measures to the respective policymakers.
- 1.2 These issues will form the core mandate of the Working Group on Irrigation Water Management & Development (WG-IWM&D).
- 1.3 The **Working Group on Irrigation Water Management & Development (WG-IWM&D)** promotes on-farm irrigation as part of integrated water resource management and a sustainable efficient approach for on-farm irrigation simultaneously leading to the optimization of environmental benefits. The then Working Group (WG-SON-FARM) has brought out many publications (manuals and guidelines) for planning, design, and evaluation of micro and sprinkler irrigation systems; operationalization of different methods of irrigation showing an outcome in water saving as well as the development of different techniques to make irrigation cost-effective and sustainable. One of the important activities of the WG is the compilation of the worldwide '**Sprinkler and Micro Irrigated Areas**'. As per the latest compilation, worldwide, on an average, 22.69 percent of the total irrigated area has been found to be under sprinkler and micro irrigation. ICID has been a 'Liaison Member' of **ISO/TC23/SC18** for over a decade. Another important activity of the WG is to organize the '**International Micro Irrigation Congress/ Symposium/Workshop/Conference**' on a periodic basis.

2. Objectives

2.1 Relevance of the Working Group (WG)

2.1.1 The relevance of the WG can be specified as follows:

- (a) the topic of Irrigation Water Management and Development is relevant to the vision and mission of ICID and of interest to its members, especially in countries with a high, medium, and low Human Development Index;

- (b) the WG is expected to contribute to the effective implementation of the Strategy Theme Irrigation and Drainage and other Strategy Themes i.e. Natural Resources, Climate Change and Impacts, and Sustainable Development;
- (c) While many major investments and activities in the past stopped at the farm gate, it is increasingly being recognized that substantial resources surrounding the farm/s should also be linked to on-farm irrigation systems for a more comprehensive and integrated approach to water management specifically irrigation in agriculture; if programs on new irrigation development and/or modernization of existing systems are to make major contributions to higher agricultural production, economic growth and environmental sustainability.

2.2 *Relevance of the Working Group to the Scope of the Thematic Area*

2.2.1 The same justification outlined in above is applicable for the relevance of the WG to the scope of the Thematic Area. In the coming periods, Irrigation Water Management & Development will be an imperative integral component of any new irrigation development and/or modernization activity.

2.3 *Existing gap that the Working Group is expected to fill*

2.3.1 Other ICID WGs or Task Forces (TF) that have a related scope of work under other Thematic Areas are WGs- NWREP; LDRG; RWH; SCER; WFE_N; IDSST; Climate; I&OMVE; HIST; and CDTE. The details on these WGs and TF could be appreciated at: www.icid.org

2.3.2 The WG-Irrigation Water Management & Development is presently mandated to study comprehensively the design and management of irrigation structures and efficient allocation and application of irrigation along with water accounting, soil moisture management, and off and On-farm Irrigation structures leading to sustainable development of water resource/irrigation through trade-offs among irrigation technologies, socio-economic parameters, and environmental benefits.

2.3.3 This WG will also further enrich the knowledge base of the ICID community by bringing in new insights on Flood-based Farming Systems (FBFS). FBFS represents a unique option for the management of often destructive floods in support of agricultural production and livelihoods of marginalized populations in poverty pockets in rural arid regions of Africa and Asia. Further, by their nature - using flood water rather than perennial flows - they are quintessential adaptations to climate change and variability. The systems account for about 30 million hectares across the world – inclusion an estimated 15 million hectares in Sub-Saharan Africa. Substantial local wisdom has developed over the past decades in organizing FBFS and managing both the floodwater and the heavy sediment loads that go along with it, but the systems have received little policy attention, largely stayed under the radar screen of major investment programs, and have been widely neglected by the scientific community.

2.3.4 The new WG has noted the activities of all relevant ICID work bodies when preparing this Scoping Document.

3. **State of knowledge on the topic**

3.1 *Other International Organisations that are working on the subject*

3.1.1 There are several other International Organisations that have programs and activities on this topic:

- (a) Food and Agriculture Organization of the United Nations (FAO);
- (b) International Fund for Agricultural Development (IFAD);
- (c) Most of the 15 research institutes that are organized within the CGIAR Consortium, especially IWMI and ICARDA;
- (d) Multilateral development banks: ADB, AFDB, IADB, WB;
- (e) A number of universities and institutes for international education: AIT, Irrigation Training and Research Centre of California Polytechnic State University, McGill University, UNESCO-IHE;
- (f) Private companies and Foundations, namely MetaMeta and the Spate Irrigation Network

3.2 *The niche that the WG ICID is expected to fill in this area*

3.2.1 The specific niche that this WG can fill in this area can be formulated as follows:

- (a) Enrich the database on current and potential perennial irrigation and FBFS command areas through also the use of GIS and Remote sensing techniques;
- (b) Documented understanding of up-to-date technologies, methodologies and practice on the topic;
- (c) How-to-do easy to read knowledge products (with audio-visuals) on specific thematic areas such as managing soil moisture; novel indigenous and state of the art modern field water distribution systems; calibration, validation, and application of relevant models;
- (d) Country overview papers based on review and analyses of manuals, guidelines, codes of practice, and standards on development, modernization, and management of on-farm irrigation systems in the countries that are represented in the WG;
- (e) Organize knowledge and experience sharing events – webinars, workshops, seminars, or symposia on the topic;
- (f) Prepare research articles and overview papers on the topic for publication in Irrigation and Drainage (IRD).

- (g) Formulate position, overview, and technical paper/s on key issues for management and sustainable development of on-farm irrigation systems.
- (h) Support the Central Office with updating the database on micro-irrigation systems at the country scale.

3.3 *How is the Working Group expected to collaborate with the other International Organisations?*

3.3.1 Several members of the former WG-SON-FARM who are expected to join this new WG-IWM&D are well connected to a number of international organizations (IFAD, FAO, IWMI, WWC, GWP, and others) and will have the possibilities to share the initiatives and achievements of the WG. On the other hand, international organizations will be encouraged to actively contribute to the activities of the WG by nominating permanent observers. The adoption of a policy to make all knowledge products of the WG available on an open-source basis in line with the Creative Commons will facilitate this collaboration.

4. Work Plan

4.1 Scope

4.1.1 The WG is expected to support research, evidence-based documentation, and dissemination on the latest scientifically significant and societal relevant issues and accordingly make recommendations with respect to:

- (a) Identifying, planning, and formulating approaches, methodologies, technologies, and field practices for sustainable development and management of off and on-farm irrigation structures and systems;
- (b) Balancing the trade-offs between socio-economic benefits and maintaining sustainable environments;
- (c) Interaction between the adoption of top-end on-farm irrigation technologies and the resulting required operation and maintenance as well as institutional arrangements;
- (d) Guidelines for the design of on-farm irrigation structures and automation of field water distribution networks;
- (e) Use of Information and Communications Technology (ICT) viz. mobile, internet, GIS, and remote sensing, for efficient on-farm water management.

4.1.2 **Appendix 1** has the details on the results-based work plan for the period 2024 to 2029.

4.2 Target audience

4.2.1 Farmers, grassroots/community organizations, practitioners and managers, researchers, development organizations, and policy shapers interested in and are actively working and promoting sustainable development and management of on-farm irrigation systems.

4.3 Outputs

4.3.1 The major expected outputs during the six-year life of the WG are the following:

- (a) Six thematic documents supported with audio-visual material;
- (b) Four publications in the Irrigation and Drainage (IRD) journal: 2 research articles, one overview paper, and one position paper.
- (c) Six country overview papers published through relevant national facilities;
- (d) At least two workshops, seminars, or symposiums successfully organized.
- (e) Three position papers on key issues related to Irrigation Water Management & Development.

4.4 Timelines

4.4.1 Irrigation Water Management & Drainage is an evolving important topic in light of its role in support of global food production. Nonetheless, it is recommended that the initial term of this WG be set at six years. This timeline is based on the work plan given in **Appendix 1**, which will be further refined during the inaugural meeting of the WG.

4.5 Collaborators and dissemination strategy

4.5.1 The WG would have to base its activities on an open attitude with a clear scope for the invitation of outsiders who are interested in the topic on a Permanent Observers (PO) or ad hoc basis.

4.5.2 The dissemination strategy would have to be based on reaching those who can apply the findings and recommendations of the WG in their research and especially in policy development, decision making, and implementation in practice.

4.5.3 **Appendix 1** has the work plan detailing the major activities for the period 2024 to 2029 and the main actors responsible for realizing the activities.

5. Core Group

5.1 The Core Group consists of:

Convenor: Prof. Ashwani Kumar Randev (Chair of the WG-SON-FARM)

Members: Mr. Carl Walter (Co-Chair WG-SON-FARM); Mr. Suman Sijapati (Secretary, WG-SON-FARM);
And all other Chairs/Co-Chairs and the members as per respective lists of all the WG members of the WG-SON-FARM; WG-WATS; WG-M&R; and the WG-IDM.

RESULTS-BASED WORK PLAN FOR THE WORKING GROUP ON IRRIGATION WATER MANAGEMENT & DEVELOPMENT (WG-IWM&D))

Activity	2024	2025	2026	2027	2028	2029	Actors
Mailing of draft Scoping Document to members of the drafting team, former members of the Working Group SON-Farm, Central Office, and selected individuals							Convener
Comments on the Updated Scoping Document received							All consulted individuals
Scoping document finalized and sent to all who contributed to the drafting							Convener
Invitation to National Committees for nominations and information							Central Office
Submission of nominations & information							National Committees facilitated by Central office
1st Meeting - scoping document and work plan discussed, modified as necessary, and adopted							Members and Permanent Observers
Exchange of information, knowledge, experience, networking							Members and Permanent Observers
Support the Central Office with updating the database on (micro) irrigation systems							Members and Permanent Observers
Prepare country overview papers (one square represents one paper)							Some members
Prepare Thematic documents (one square represents one document)							Some members
Organize international workshop, seminar or symposium							Some Members
2nd Meeting Including workshop. among other presentations, two country overview papers and two thematic documents discussed							Members and Permanent Observers
Prepare one overview paper and two research articles on state of the art for publication in <i>IRD</i> .							Some members
Draft Position paper on key issues on Irrigation Water Management and Development disseminated among members and permanent observers							Chairperson, Vice-Chair and Secretary
3rd Meeting including Workshop. Draft position paper along with two country overview papers, two Thematic documents, and other papers discussed							Members and Permanent Observers
Position paper finalized - application for best performing Working Group submitted to Central Office							Chairperson, Vice-Chair and Secretary with input from members
4th meeting - one country overview paper and one thematic document are presented. The renewal of the WG and its focus for the period 2025 to 2029 is discussed. Convener and members to draft scoping document nominated.							Members and Permanent Observers
5th meeting one country overview paper and one thematic document presented, Scoping document discussed, modified as necessary and adopted.							Members and Permanent Observers



2.1 (A) MEMBERSHIP OF ERSTWHILE WG-SON-FARM			
No.	Members	Country	Remarks
1.	Dr. A.K. Randev	India	Chairman
2.	Mr. Carl Walters	Australia	Vice Chair
3.	Mr. Suman Sijapati	Nepal	Secretary
4.	Dr. Guan Guanghua	China	
5.	Prof. Luo Yufeng	China	
6.	Dr. Yu-Min Wang	Chinese Taipei Committee	
7.	Dr. Chen, Ching-Tien	Chinese Taipei Committee	
8.	Dr. Shao-Yiu Hsu	Chinese Taipei Committee	
9.	Dr. Gamal Mohamed Elkassar	Egypt	
10.	Mr. Dilip Yewalekar – Direct Member, JISL	India	
11.	Prof. LB Roy – Direct Member	India	
12.	Dr. Neelam Patel	India	
13.	Dr. Ashish Pandey	India	
14.	Dr. Hossein Dehghanisanij	Iran	
15.	Dr. Graziano Ghinassi	Italy	
16.	Mr. Taku Mori	Japan	
17.	Dr. Teoh Chin Chuang	Malaysia	
18.	Mr. Siboniso Phillip Mkhaliphi	South Africa	
19.	Prof. Chang Eon Park	South Korea	
20.	Mr. Ömer Faruk Akbulut	Turkey	
21.	Dr. Caner Demir	Turkey	
22.	Mr. Ibrahim Burak Yeşiloğlu	Turkey	
Observers/ Permanent Observer			
23.	Mr. M.S. Sudhakar (Direct Member), JISL	India	
24.	Mr. Abijit Joshi (Direct Member), JISL	India	
25.	FAO Representative		

(B) New nominations received from the National Committee/ Committee			
1	Prof. Ping Li	China ¹	Recommended as a member, subject to his presence else provisional member
2	Dr. Ching-Tien Chen	Chinese Taipei Committee	Recommended as a member, subject to his presence else provisional member
3	Dr. Shao-Yiu Hsue	Chinese Taipei Committee	Recommended as a member, subject to his/her presence else provisional member
4	Dr. Chih-Hung Tan	Chinese Taipei Committee	Recommended as a member, subject to his presence else provisional member
5	Dr. Peng-Jui Wang	Chinese Taipei Committee	Recommended as a member, subject to his presence else provisional member
6	Dr. (Ms.) Areeya Rittima	Thailand	Recommended as a member, subject to her presence else provisional member
7	Dr. Yutthana Talaluxmana	Thailand	Recommended as a member, subject to his presence else provisional member



¹ Endorsement from the Chinese National Committee (CNCID) is awaited

2.2 MEMBERSHIP OF ERSTWHILE WG-WATS			
No.	Members	Country	Remarks
1.	VPH Engr. Rafat Nael Al-Intaki	Iraq	Chair
2.	Dr Mohamed El-Hagarey	Egypt	Secretary
3.	Ir. Felipe Dantas	Australia	
4.	Ms. Jianxin Mu	China	
5.	Prof. Qi Xuebin	China	
6.	Prof. Gu Tao	China	
7.	Dr. Yujiang Xiong – Young Professional	China	
8.	Dr. Ray Shyan Wu	Chinese Taipei Committee	
9.	Dr. Shao-Yiu Hsu	Chinese Taipei Committee	
10.	VPH M. Hassan Amer	Egypt	
11.	Eng (Ms.) Hala Ramadan El-Sayed Ismail	Egypt	
12.	Dr. P. Soman – Direct Member, Jain Irrigation Systems Limited	India	
13.	Mr. Abijit Joshi – Direct Member, JISL	India	
14.	Dr. Deepak Khare	India	
15.	Dr. Man Singh	India	
16.	Prof. Michele Perniola	Italy	
17.	Dr. Tasuku Kato	Japan	
18.	Ir. Wan Noorul Hafilah Binti Wan Ariffin	Malaysia	
19.	Dr. Ashfaq Ahmed Sheikh	Pakistan	
20.	Dr. Muhammad Ashraf	Pakistan	
21.	Dr. Khumbulani Dhavu	South Africa	
22.	Mr. Yalçın Dalgin	Turkey	
23.	Dr. (Ms.) Derya Coşkun	Turkey	
24.	Mr. Egemen Gürsoy	Turkey	
25.	Er. Isomiddin Akramov	Uzbekistan	
Permanent Observers			
26.	IWMI Representative		
27.	FAO Representative		



2.3 MEMBERSHIP OF ERSTWHILE WG-M&R			
No.	Members	Country	Remarks
1.	VPH Ian Makin	UK	Chair
2.	Dr. Dong Bin	China	Vice Chair
3.	Er. Muhammad Sani Bala	Nigeria	Secretary
4.	Dr. Yalong Li	China	
5.	Dr. SHI Yuan	China	
6.	Dr. Di Wu	China	
7.	Dr. Chih-Hung Tan	Chinese Taipei Committee	
8.	Dr. Hwa-Lung Yu	Chinese Taipei Committee	
9.	Prof. Dr. Tarek Ahmed El-Samman	Egypt	

2.3 MEMBERSHIP OF ERSTWHILE WG-M&R			
No.	Members	Country	Remarks
10.	Dr. Sanjay Belsare	India	
11.	Prof. Sunil D. Gorantiwar	India	
12.	Dr. Neelam Patel	India	
13.	Mr. Mohamad Ramdani	Indonesia	
14.	Mr. Muhammad Adrie Azhari	Indonesia	
15.	Mr. Mehrzad Ehsani	Iran	
16.	Mr. Omid Moridnejaad	Iran	
17.	Dr. Mohsen Barahimi	Iran	
18.	Mr. Ali Omran Ali	Iraq	
19.	Mrs. Zaineb Mohammed Akram	Iraq	
20.	Dr. Toshihiko Kuno	Japan	
21.	Dr. Shinji Fukuda	Japan	
22.	Mr. Mohd Yazid bin Abdullah	Malaysia	
23.	Mr. Dinesh Bhatt	Nepal	
24.	Mr. Usman-e-Ghani	Pakistan	
25.	Dr. Usman Khalid Awan	Pakistan	
26.	Ms. Mona Liza Delos Reyes	Philippines	
27.	Engr. Reyne B. Ugay	Philippines	
28.	Mr. Jan Potgieter	South Africa	
29.	Dr. Macdex Mutema	South Africa	
30.	Ms. Kwang-Sik Yoon	South Korea	
31.	Ms. Bedriye Nur Dikenli Aytakin	Turkey	
32.	Mr. Ali Volkan Seyfi	Turkey	
33.	Mr. Bilal Alpaslan	Turkey	
34.	Dr. Brian T. Wahlin	USA	
Observer/ Permanent Observers			
35.	Mr. Alan Kendall Clark	UK	
36.	FAO Representative		
37.	Dr. Petra Schmitter (World Bank)	Myanmar	
38.	Dr. Alok Sikka (IWMI)	India	



2.4 MEMBERSHIP OF ERSTWHILE WG-IDM			
No.	Members	Country	Remarks
1.	Mr. Ahmet Şeren	Turkey	Chair
2.	Dr. Sheng-Wei Wang	Chinese Taipei Committee	Vice Chair
3.	Dr. Katsuyuki Shimizu	Japan	Secretary
4.	Dr. Amgad Elmahdi	Australia	
5.	Dr. Wu Jingwei	China	
6.	Dr. Liu Jing - Young Professional	China	
7.	Prof. Huang Jiesheng	China	
8.	Prof. (Ms.) Chen Jing	China	

2.4 MEMBERSHIP OF ERSTWHILE WG-IDM			
No.	Members	Country	Remarks
9.	Dr. Hwa-Lung Yu	Chinese Taipei Committee	
10.	Eng El Sayed El Yamani Ali Sarkees	Egypt	
11.	Dr Eman Ragab Mohamed Nofal - Young Professional	Egypt	
12.	Mr. Waleed Abou El Hassan	Egypt	
13.	Dr. Gamal Mohamed Elkassar	Egypt	
14.	Prof L.B. Roy – Direct Member	India	
15.	Dr. Narges Zohrabi	Iran	
16.	Dr. Akie Mukai	Japan	
17.	Ir. Mat Hussin Bin Ghani	Malaysia	
18.	Mr. Mohamad Radzi Bin Abdul Talib	Malaysia	
19.	Mr. Tariq Altaf	Pakistan	
20.	Dr. Khumbulani Dhavu	South Africa	
21.	Engr. Ali Mohamed Ahmed Elhaj	Sudan	
22.	Ms. Özlem YILDIZ	Turkey	
Permanent Observers			
23.	VPH Ian Makin	UK	
24.	VPH Hafied Gany	Indonesia	



3.1 ROAD MAP TO ICID VISION 2030 – ACTIVITIES OF WG-SON-FARM

Goals/ Strategies	Activities	Outcomes/ Outputs	Milestone for 2017	Milestone for 2018	Milestone for 2019	Milestone for 2020	Milestone for 2021	Milestone for 2022	Milestone for 2023	Milestone for 2024	Responsibility
Goal A: Enable higher crop productivity with less water and energy											
A1.Strategy: Modernizing irrigation systems	1.3 Prepare country overview papers	Papers	Prepare two country overview papers	Prepare one country overview paper	Prepare two country overview papers			Prepare one overview paper			
A5.Strategy: Supporting water productivity enhancement	5.1 Prepare how to do thematic documents ready	Technical Document	Prepare one how-to-do document	Prepare one how-to-do document	Prepare one how-to-do document	Prepare one how-to-do document	Prepare one how-to-do document	Prepare one thematic document			
	5.2 Develop a position paper on key issues on sustainable on-farm irrigation systems	Position paper	Prepare first draft paper	Finalize the position paper	Prepare second draft paper	Finalize the position paper		Prepare one position paper.			
Goal C: Facilitate exchange of information, knowledge and technology											
C3.Strategy: Promoting regional cooperation	3.9 Organize international workshop, seminar or symposium	Compilation of proceedings	First internal Workshop	Organization of the 9th International Micro Irrigation Conference (IMIC) in January 2019 at Aurangabad, India	Hosted 9th International Micro Irrigation Conference (IMIC) in January 2019 at Aurangabad, India	-	Second workshop	Third workshop.			
C4. Strategy: Compile, collate and share knowledge and experiences	4.20 Database on sprinkler and micro irrigation in the world	Database	Updating database	Updating database	Updating database	Updating database	Updating database	Updating data base			
	4.27 Research article on state of the art for publication in Irrigation and Drainage Journal	Study report	Prepare one article	Publication in Journal	Prepare one article	Publication in Journal	Prepare one article	Prepare one article			
Goal E: Encourage Research and Support Development of Tools to Extend Innovation into Field Practices											
E2. Strategy: Strengthening Extension Services with AWM information											
E5.Strategy: Compilation of Global Data Sets on Irrigation and Drainage	5.1 Datasets for irrigated area	Database	Updating database	Updating database	Updating database	Updating database	Updating database	Updating database			
	5.2 Datasets for Pressurised Irrigation Systems	Database	Updating database	Updating database	Updating database	Updating database	Updating database	Updating database.			

(Source: Consultative Group (CG) Report: A Water Secure World Free of Poverty & Hunger: A Road Map to ICID Vision 2030)



3.2 ROAD MAP TO ICID VISION 2030 – ACTIVITIES OF WG-WATS

Goals/ Strategies	Activities	Outcomes/ Outputs	Milestone for 2018	Milestone for 2019	Milestone for 2020	Milestone for 2021	Milestone for 2022	Milestone for 2023
GOAL A: ENABLE HIGHER CROP PRODUCTIVITY WITH LESS WATER AND ENERGY								
A3. Strategy: Improving water saving techniques and technologies	3.1 Support Watsave award winner selection	Awards	Presenting Annual Watsave Awards	Presenting Annual Watsave Awards	Presenting Annual Watsave Awards	Presenting Annual Watsave Awards	Presenting Annual Watsave Awards	Presenting Annual Watsave Awards
	3.2 Best Practices and Successful Story on Water Saving	Documents	Announcing annually for Watsave awards and selecting successful stories	Announcing annually for Watsave awards and selecting successful stories	Announcing annually for Watsave awards and selecting successful stories	Setting up 10 years respective work as the documents and release by CO (2010 -2020)		
GOAL B: BE A CATALYST FOR CHANGE IN POLICIES AND PRACTICES								
B1. Strategies: Supporting development of appropriate policies	1.3 Disseminate the water saving award technologies	Workshop proceedings						
	1.4 Policy and legal approaches to Water Saving	Policies/ Document	-Workshop -Designing and preparing questionnaire to collect data	Collecting and reviewing relevant laws and regulations from NC	Providing first draft	Finalize the book on policies and strategies drives on water saving		
	1.5 Water Charging policies	Position paper	Designing Standard questionnaire	Reviewing Water Charging procedure on NC	Providing first paper	Final Paper		
	1.11 State of the art on water saving	Journal Paper	Preparation of the draft of first paper	Submission of first paper for IRD	Preparation of the draft of second paper	Submission of second paper for IRD		
GOAL C: FACILITATE EXCHANGE OF INFORMATION, KNOWLEDGE AND TECHNOLOGY								
C1. Strategies: Providing knowledge sharing platform for AWM professionals	1.1 Organize Workshop, Seminar and Symposium	Compilation of proceedings	Workshop			Workshop		
C4. Strategy: Compile, collate and share knowledge and experiences	4.8 Condensed overview of existing key books, manuals, guidelines and other relevant publications on water saving	Technical report	Release the first report		Release the second report	Release of third report		

(Source: Consultative Group (CG) Report: A Water Secure World Free of Poverty & Hunger: A Road Map to ICID Vision 2030)



3.3 ROAD MAP TO ICID VISION 2030 – ACTIVITIES OF WG-M&R

Goals/ Strategies	Activities	Outcomes / Outputs	Milestone for 2017	Milestone for 2018	Milestone for 2019	Milestone for 2020	Milestone for 2021	Milestone for 2022	Milestone for 2023	Responsibility
Goal A: Enable higher crop productivity with less water and energy										
A1. Strategy: Modernizing irrigation systems	1.4 Preparation and presentation of Case studies	Compilation of Case Studies	6 Case Studies	5 case studies presented	9 Case Studies			Selected case studies to address key missing aspects	Edited volume of case studies – published on the ICID website	Authors of case studies
	1.5 Prepare an overview paper on State of the Art on Modernization of Irrigation Systems	State of the Art Paper		State of the Art Paper	State of the Art Paper re-arranged	Cancelled				
	1.6 Develop Guidelines for Modernization of Irrigation systems	Guidelines (This is to be reviewed and possibly revised in Mexico in 2017)			Release Guidelines in WIF3				Release Guidelines	Lead Authors (Ian Makin, Dong Din, Sani Bala)
A2. Strategy: Improving O&M of Irrigation Systems	2.1 Advocacy paper to draw attention to the need of adequate resources for O&M	Advocacy paper								
	2.2 Develop norms of O&M of Irrigation systems	Technical Report					Survey developed and submitted for distribution to ICID NCs	Survey to be sent out by CO – Q1, 2022 Analysis and draft report by Q3, 2022	Final report on Norms and processes – presented at WIF 4, Beijing	Core writing team, led by Mona Liza del le Reyes
Goal B: Be a catalyst for change in policies and practices										
B1. Strategy: Supporting development of appropriate policies	1.9 Prepare position Paper on Key Issues on Modernization of Irrigation Schemes	Position/Policy Paper of ICID								
Goal C: Facilitate exchange of information, knowledge and technology										
C1. Strategy: Providing knowledge sharing platform for AWM professionals	1.5 Organize Workshops, Seminar and Symposium on modernization	Compilation of proceedings	Main Theme of Congress, Inputs to Congress		Full-day workshop on modernization			International Workshop in Adelaide in 2023		Ian Makin
Goal F: Facilitate capacity development										
F4. Strategy: Developing and sharing AWM knowledge	4.4 Condensed overview of Key books, manuals and Guidelines	Book Overview								Ongoing – all members of WG_M&R

(Source: Consultative Group (CG) Report: A Water Secure World Free of Poverty & Hunger: A Road Map to ICID Vision 2030)



3.4 ROAD MAP TO ICID VISION 2030 – ACTIVITIES OF WG-IDM

Goal/ Strategies	Activities	Outcomes/ Outputs	Responsible person
GOAL A: ENABLE HIGHER CROP PRODUCTIVITY WITH LESS WATER AND ENERGY			
A1. Strategy: Modernizing irrigation systems	1.1 Develop a program for introducing standards for irrigation systems	Standards for Irrigation and Drainage	Dr. Sheng-Wei WANG
	1.2 Report or case studies on recent developments in Irrigation Drainage Management	Case studies Presented in WG meetings	Dr. Narges ZOHRABI Mr. Ahmet SEREN
A6. Strategy: Improving the performance of irrigation systems	6.1 Investigating and providing information on the positive amenities, services, and goods provided by irrigation systems (in consultation with WG-ENV)	Technical Report	Dr. K SHIMIZU
	6.7 Identify drivers and social resistances within the systems to improve Irrigation management	Report	Mr. Ahmet SEREN Mr. Ian MAKIN (to assist)
GOAL B: BE A CATALYST FOR CHANGE IN POLICIES AND PRACTICES			
B1.Strategy: Support the development of appropriate policies	1.14 Report on South-South cooperation for capacity development in the field of irrigation management	Report	Ms. M.Jean GABRIEL
B3. Strategy: Integrated Irrigation and Drainage Management	3.1 Assess methods and develop guidelines on relevant water balance approach	Guidelines	Dr. Amgad ELMAHDI Mr. Ian MAKIN (to assist)
GOAL C: FACILITATE EXCHANGE OF INFORMATION, KNOWLEDGE, AND TECHNOLOGY			
C1.Strategy: Providing knowledge sharing platform for AWM professionals	1.3 Organize Workshop, Seminar and Symposium on Water Balance Approach	Proceedings	Dr. Amgad ELMAHDI
C4.Strategy: Compile, Collate and Share Knowledge and Experiences	4.9 Condensed overview of existing documents and practical examples on water balance approach	Technical Report	Ms. M.Jean GABRIEL
	4.17 Overview paper on the Irrigation Development for publication in Irrigation and Drainage (IRD)	Technical Paper	Dr. Sheng-Wei WANG
GOAL D: ENABLE CROSS DISCIPLINARY AND INTER-SECTORAL ENGAGEMENT			
D2. Strategy: Developing Technical Documents in Non-technical Language	2.3 Investigating and documenting the social and economic impacts of irrigation systems	Technical report	Dr. Akie MUKAI
GOAL E: ENCOURAGE RESEARCH AND SUPPORT DEVELOPMENT OF TOOLS TO EXTEND INNOVATION INTO FIELD PRACTICES			
E6. Strategy: Dissemination of Useful Research Outputs	6.2 Investigate and report on state of research, barriers or locks and promising paths in the field of irrigation management	Technical report	Prof. LB ROY

(Source: Consultative Group (CG) Report: A Water Secure World Free of Poverty & Hunger: A Road Map to ICID Vision 2030)

