

**MINUTES OF THE SECOND VIRTUAL MEETING OF THE
WORKING GROUP ON WATER FOOD ENERGY NEXUS (WG-WFE-N)**

Date: 14 September 2021; Time: 15:30 Hours (Indian Standard Time)

Item 1: Welcoming words by the Chairman

1. Dr Ragab, the Chairman (WG-WFE-N) and also the President of ICID has extended warm welcome to all the members present in the Second virtual meeting of working group on Water Food Energy Nexus.
2. The Chairman thanked the national committees, who have nominated their experts to the Working Group (WFE-N) in response to the invitation sent by the ICID Central Office.

Item 2: Introduction by each participant

3. The members present in the meeting introduced about their background and professional experiences for the benefit of other participants. (1) President Dr. Ragab Ragab (UK), Chairman; (2) VPH Dr. K. Yella Reddy (India), Secretary; (3) Vice President Dr. Marco Arcieri (Italy); (4) Dr. P. Soman (Direct Member), JISL; (5) Prof. Won-Ho-Nam (Korea); (6) Dr. Chung-Feng, Ding (Chinese Taipei Committee); (7) Prof. Dr. Zeinab Hussien Behairy (Egypt); (8) Dr. Noppadon Kowsuvon (Thailand); (9) Mr. Chaisri Suksaroj (Thailand); (10) Dr. Peng-Jui Wang (Chinese Taipei Committee); (11) Mr. Carl Walters (Australia); (12) Mr. John William O'Connor (Australia); (13) Dr. Vishnu Prasad Pandey (Nepal); (14) Dr. Deepak Khare (India); (15) Dr. Man Singh (India); (16) Mrs. Narges Zohari (Iran); (17) Dr. Mahdi Sarai Tabrizi (Iran); (18) Mr. Lu Hui (China); (19) Dr. Junzeng Xu (China); (20) Mr. Liangsheng Shi (Young Professional); and (21) Er. B.A. Chivate, Director (Technical), ICID Central Office, New Delhi, India.
4. Some of the members have made good power point presentations about their expertise and the type of work they are involved. The Chairman has appreciated the members for showing interest and joining this group. He also informed the members that time slots will be provided to the members for making internal presentations in the annual meetings.

Item 3: Actions taken from 1st Virtual meeting of the WG-WFE-N held on 3 June 2021

5. The Chairman presented the report of the actions taken on the decisions and proposals made at its First Virtual meeting of the WG-WFE-N held on 03 June 2021.
6. The Chairman informed that the ICID has sent invitation to the national committees to nominate experts to the Work body for effective implementation of the various activities and realize the objectives of the scoping document. He has informed that a tabular format was sent in a mail to all the members to fill in their options for preparing detailed 3-year rolling plan.

Item 4: Three-year rolling plan based on the scoping document for a new WG-WFE-N

7. The ICID Central Office has requested the members of the group to select the area of interest as shown in the 3-year plan of the scoping document for a new WG on Water Food Energy Nexus (WG-WFE-N). In response, Dr. Peng-Jui Wang (Chinese Taipei Committee); and Prof. Dr. Zeinab Hussien Behairy (Egypt) have shown their interest in the 3-year rolling plan of the WG, which is a part of scoping document of the group.
8. Further, ICID Central Office has also circulated the Scoping Document (SD) for a new WG-WFE-N members and requested them to send their comments/suggestions, if any. The Chairman requested the members to use the format circulated to fill their choice of areas in 3-year rolling plan of the WG immediately after the meeting and send to him and ICID CO for updating. An updated table of 3-year rolling plan of the WG is as **Annex**.

Item 5: Review of the membership of the WG-WFE-N

9. The following new nominations have been received from National Committees ((NCs) for the membership of the WG. New nominees of the WG, including their CVs have already been shared to Chair and Secretary of the group, for consideration.
 - Australian National Committee of ICID (IACID) has nominated Mr. Carl Walters and Mr. John William O'Connor from Australia for the membership of WG.
 - Chinese National Committee of ICID (CNCID) has nominated Mr. Lu Hui; Dr. Junzeng Xu; and Mr. Liangsheng Shi (Young professional) for the membership of WG.

- Chinese Taipei Committee (CTC) has nominated Prof. Cheh-Shy Ting; and Dr. Peng-Jui Wang from CTC for the membership of WG.
- Nepal National Committee of ICID (NENCID) has nominated Dr. Vishnu Prasad Pandey (Nepal) for the membership of WG.
- Indian National Committee of ICID (INCID) has nominated Dr. Deepak Khare and Dr Man Singh (India) for the membership of WG.
- Iranian National Committee of ICID (IRNCID) has nominated Mrs. Narges Zohari and Dr. Mahdi Sarai Tabrizi from Iran for the membership of WG.
- Thai National Committee of ICID (THAICID) has nominated Dr. Noppadon Kowsuvon; Mr. Watchara Suiadee and Mr. Chaisri Suksaroj from Thailand for the membership of WG

10. ICID CO has received the information from Chinese National Committee of ICID (CNCID) and Japanese National Committee of ICID (JNC-ICID) vide their email dated 30 August and 09 September 2021 that Mrs Gao Hong (China), who is the member of the WG, retired from their organisation and Dr. Kazumi Yamaoka (Japan), who is also the member of the WG, retired from JNC-ICID.

Item 6: Multi-functionality of water use in paddy (Rice) cultivation

11. It was noted that the WG decided to bring out a 'Technical Report' based on papers contributed by its members in areas such as: (a) efficient use of water in crop production, (b) crop water models, (c) multifunctional water use in paddy, and (d) rain water harvesting and energy crops. The report is a consolidation of contributions and collection of information from members on these topics under the mandate of the group. NCs of China, Indonesia, Philippines and Italy have already been presented their papers for the technical report of the WG.

12. Accordingly, ICID CO has requested the members/NCs from Australia, Chinese Taipei Committee, Egypt, Korea, India, and Thailand to contribute their papers in the area of 'multi-functionality of water use in paddy (Rice) cultivation'. In response, Prof. Zeinab Hussein Behairy (Egypt), Dr. P. Soman (India), and Ir. Felipe Dantas (Australia) members of the WG, have shared their papers titled "Rice Story in Egypt", "Drip irrigation and fertigation technology for rice production leading to higher water productivity" and "Australian Rice Market" as contribution based on the experience as 'multi-functionality of water use in paddy rice cultivation' for inclusion in the Technical Report of the WG. These reports have been shared to Chair and Secretary of the WG.

13. Further, ICID Central Office has also requested to Vice President Dr. Marco Arcieri (Italy) and VPH Dr. K. Yella Reddy (India) to submit their contribution on 'multi-functionality of water use in paddy (Rice) cultivation' for inclusion in technical report of the WG. The Chairman requested that in one month time the pending reports be submitted. The chairman informed that as an outcome of WG-Water and Crop, a quality E Book would be published from the articles contributed by the members.

Item 7: International Workshop on 'The Water-Energy-Food-Nexus: Implementation and Examples of Application'

14. During the virtual meeting held in October 2020, it was proposed that the four international workshops (WG-IOA, WG-M&R, WG-MWSCD and WG-WFE) of the WGs would be held during 72nd IEC face-to-face meeting either at Marrakesh, Morocco in September 2021 (**Option 1**) or 73rd IEC meeting & 24th ICID Congress, Adelaide, Australia in October 2022.

15. In this regard, Chair of the WG briefed that the International Workshop titled 'The Water-Energy-Food-Nexus: Implementation and Examples of Application' will be now be conducted in Adelaide in 2022, inviting more number of papers from national committees of ICID and other international organizations. The Chairman has informed that he will develop a brochure and circulate among the members for inputs and on finalization it will be broadcasted. The members have unanimously accepted the proposal

Item 8: Updating Multilingual Technical Dictionary (MTD)

16. During the virtual meeting held in October 2020, it was noted that Dr. P. Soman (India), who is coordinator to undertake the task of reviewing and updating the terms of MTD of the WG, would be replaced in the next meeting of the WG based on the new mandate for a new WG on Water Food Nexus (WG-WFE-N). Further, ICID Central Office has requested the members of the WG to submit their nomination as Coordinator of the MTD to Chair of the WG, with a copy to ICID CO.

17. The chair informed the members to contribute for updating Multilingual Technical Directory with addition of more terminology. Any member has some new words to contribute, they are requested to send them to the Chairman and to Dr Soman for adding to the library. Water Use Efficiency, Water Productivity, WFE Nexus are some of the additions that can go into the MTD.

Item 9: ICID-IWRA Collaboration

18. During the virtual meeting of the WG held in October 2020, it was noted that the Chair informed the members about the collaboration between national and international organizations like International Water Resources Association (IWRA), International Water Association (IWA), and International Centre for Agricultural Research in the Dry Areas (ICARDA) etc. which can cover under the umbrella of new working group based on the new mandate for strengthening the activities of the group such as (i) Organization joint seminars/workshops, and (ii) bring out a Special Issue of the Journal based on the selected papers from the WG workshops/seminars, possibly with financial support from other.

19. The chair informed the members that the ICID has recently entered into MOUs with i) International Water Management Institute (IWMI), ii) Arab Water Forum (AWF) and also iii) International Centre for Bio Saline Agriculture (ICBSA) towards long term collaborations.

Item 10: Publication of the Working Group

20. The WG may consider to publish a few selected papers from the past International Workshops of the group for publication in the ICID Journal. During the virtual meeting of the WG held in October 2020, Chair of the WG informed the members about the latest version of SALTMED software and published a paper titled 'SALTMED publications in Irrigation and Drainage' (Virtual Issue, 20 May 2020) which is available at [https://onlinelibrary.wiley.com/doi/toc/10.1002/\(ISSN\)1531-0361.saltmed-publications](https://onlinelibrary.wiley.com/doi/toc/10.1002/(ISSN)1531-0361.saltmed-publications) and uploaded on the WG website for use by to its members.

21. The Chair requested the members to utilize the opportunity and contributes in terms of research findings, publications, models, mobile apps for larger circulation through ICID website for wider reach.

Item 11: New sub-topic 'Water Use and Productivity'

22. During the last meeting, it was noted that the water requirements of the greenhouse crops are still estimated in a traditional way and there is a need to work out the actual water requirements for various crops under greenhouse conditions. In this regard, the progress was discussed and advised to prepare the details and review through web-based meetings. In March 2020, ICID CO requested the Task Team (TT) to take lead, develop a one-page 'Concept Note' and a short action plan with responsibilities assigned to undertake activities under this item. Further, PH Dr. Nairizi chaired a zoom meeting on the crop water requirement, water use efficiency and water productivity under greenhouse condition.

23. The Chair suggested ICID HO to find out with the PH Dr Nairizi, whether the objectives of the initiative are achieved or the agenda need to be continued as part of the WG.

Item 12: Date of next meeting of the WG

24. The Chair informed the members that the next meeting of the WG will be held in Morocco in November 2021 as the preparations are going on well for conducting the ARC in physical mode.

Item 13: Any other business

25. The Chairman appreciated ICID HO for the development of new website of ICID with much improved features.

26. Members are requested provide their short CVs (150-200 words) with their picture for uploading on webpage of the WG-WFE-N. This will help in knowing the expertise of professionals of ICID and building up collaborations with partners for the mutual benefit.

27. All members are requested to share their mobile numbers for having dedicated WhatsApp group for better connectivity and communication among the members for carrying out activities with more ease.

28. It was decided to provide time slot for internal presentations by the members of the WG-WFE-N in the ARC to be held in Morocco in Nov 2023.



**UPDATED ACTIVITY TABLE ON THREE YEAR ROLLING PLAN OF THE
WG CONTRIBUTION BY MEMBERS**

S.No.	Activity	Contributors	Output type	Completion date (approx.) mm/yyyy	Remarks
01.	To prepare an overview document on the state of the art on improving water use efficiency and productivity within the nexus	<ul style="list-style-type: none"> • Zeinab Behairy • John O'Connor • Ragab • Man Singh • Mahdi Sarai Tabrizi 	Document/Report		Dr. Vishnu can help with some of the review work together with other colleagues who will be associated with this activity
02.	To produce a document of impact of climate change and possible use of non-conventional less water consuming crops	<ul style="list-style-type: none"> • Ragab • Hui LU • Marco Arcieri 	Document/Report		
03.	To prepare an overview document on the state of the art on model applications as useful management tools for water, crops, field and energy management within the nexus	<ul style="list-style-type: none"> • John O'Connor • Ragab • Man Singh • Liangsheng Shi • Mahdi Sarai Tabrizi • Marco Arcieri 	Document/Report		To prepare an overview document on the state of the art on agricultural intelligence and mobile APP for water, crops and field
04.	To prepare and present reports on case studies on recent developments in the countries that are represented in the WG; and from presented cases of the workshops	<ul style="list-style-type: none"> • Chung-Feng Ding • Peng-Jui Wang • Zeinab Behairy • Carl Walters (and colleagues) • Won-Ho Nam • Mahdi Sarai Tabrizi 	Document/Report		Carl - Will be pursuing the <u>App Development</u> to support energy, water use decisions and look forward to arranging the presentation and reporting on this at the Workshop with my colleagues
05.	To organize international workshops, seminars or symposia on the Nexus topic. Adelaide, Australia	<ul style="list-style-type: none"> • Ragab & All • Carl Walters 	Proceedings	October 2022	Carl - Happy to arrange and ensure we have a workshop on this topic in Adelaide, I will be on organising committee for the Congress. Dr. Vishnu can help to design the program in consultation with the team
06.	Internal Presentations: WG meeting , Marrakesh, Morocco	<ul style="list-style-type: none"> • Chung-Feng Ding • Peng-Jui Wang • Man Singh • Dr.P.Soman 	PPT presentations	November 2021	
07.	International Workshop Presentation Adelaide, Australia	<ul style="list-style-type: none"> • Chung-Feng Ding • Peng-Jui Wang • Man Singh • Won-Ho Nam • Dr.P.Soman • Hui LU 	PPT & Proceedings	October 2022	
08.	WG output publication close to the end of its mandate. Compilation of the different outputs presented in the above activities.	<ul style="list-style-type: none"> • Ragab & ALL 	ICID Book	June 2023	

