

**AGENDA FOR 4<sup>TH</sup> MEETING OF THE  
WORKING GROUP ON WATER FOOD ENERGY NEXUS (WG-WFE\_N)**

5 September 2024, 08:30-10:00 Hours (Session-I)  
5 September 2024, 10:30-12:00 Hours (Session-II)  
Sydney, Australia

**Strategy Theme: Natural Resources**

**Presented by the Chairman**

**Year of Establishment: 2021**

**Completion of the Mandate: 2027**

**New mandate of the WG:**

- (a) to exchange information, knowledge, and experience, as well as networking on the Water-Food-Energy Nexus topic in order to be up to date with new developments, methods and approaches. This can be the basis for a possible position paper on key issues on the nexus.
- (b) to prepare an overview document on the state of the art on improving water use efficiency and productivity within the nexus.
- (c) to produce a document of impact of climate change and possible use of non-conventional less water consuming crops
- (d) 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
- (e) 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
- (f) to organize international workshops, seminars or symposia on the Nexus topic.
- (g) to implement ICID 2030 vision

**Webpage:** [https://icid-ciid.org/inner\\_page/147](https://icid-ciid.org/inner_page/147)

**WG-WFE-N Agenda Item 1: Action Taken Report by Chair<sup>1</sup>**

1. Dr. Ragab Ragab, President Hon., ICID and Chairman of the WG inform that following developments took place after the last meeting held in Visakhapatnam in November 2023. WG Chair will provide further updates at the meeting.

- (a) Successful conduct of WEF-Nexus Webinar 'Application of Models in Water-Energy-Food Nexus' on 11 April 2024.
- (b) Participation of WEF-Nexus working group in the prestigious World Water Forum 10, held in Bali, Indonesia during 19-25, May 2024.
- (c) Preparatory works for conducting WEF-Nexus international workshop during the 9<sup>th</sup> ARC & 75<sup>th</sup> IEC to be held in Sydney, 1<sup>st</sup> September, 2024.

**WG-WFE-N Agenda Item 2: Review of the membership of the WG-WFE\_N**

2. The Chinese Taipei Committee of ICID (CTCID) has nominated three experts i.e. Dr. Ming-Che Hu, Dr. Tony Chih-Sheng Chen and Dr. Hao-Che Ho for the membership of the WG.

**SUPP:** The Japanese National Committee on Irrigation and Drainage (JNCID) has nominated Eng. Shinji FUKUDA (Japan) for the membership of the WG.

3. Chair in consultation with Vice Chair, Secretary of the WG and the Central Office has updated the membership of the WG as given at **Annex 1** (*refer electronic version for latest list*). New nominations, if any, for the membership received will be dealt suitably after the meeting.

**WG-WFE-N Agenda Item 2.1: A brief report of the 1<sup>st</sup> Virtual meeting of WG, 27 June 2024**

4. WG organized its First Virtual Meeting on 27 June 2024 wherein twenty-two members participated. During the virtual meeting, Chair discussed various activities like new membership, international workshop, three-year rolling plan based on the scoping document for a new WG, contributors (theme leaders) to complete their targets and

<sup>1</sup> This will also include details of membership of WG as Annex

share the report in Sydney meeting, Updating Multilingual Technical Dictionary (MTD), publication of the WG etc. Central Office has circulated the minutes of the WG to members of the group. Minutes of the virtual meeting of all technical work body have been uploaded on a dedicated webpage – “ICID Workbodies Virtual Meeting” ([https://icid-ciid.org/inner\\_page/152](https://icid-ciid.org/inner_page/152)). Chair will provide further updates at the meeting.

5. During the virtual meeting of the group, President Dr. Marco agreed to give a presentation on desalination (the presentation related to his presentation to WWF10) in the Working Group meeting (10-15 minutes max). Also, VP Sylvester suggested including a new WG activity "Capacity Building". VP Sylvester has also agreed to give a short presentation on this subject (10 minutes). President Dr Marco and VP Sylvester are invited to send their PPT presentation to the Prof. Dr. Ragab no later than 20 August, 2024.

6. The newly nominated members (Dr. Ming-Che Hu, Dr. Tony Chih-Sheng Chen and Dr. Hao-Che Ho) from Chinese Taipei Committee have not attended the meeting during the virtual meeting. So their acceptance for the membership of the group will be discussed during the WG meeting to be held in September 2024 at Sydney, Australia.

### **WG-WFE-N Agenda Item 3: Three-year Rolling Plan based on the Scoping Document for a New WG- WFE\_N**

7. During the meeting, it was noted that the rolling plan for the new WG outlined based on the scoping document and circulated among the members for their involvement and active contribution to achieve the group’s objectives. During virtual meeting, Chair presented a brief overview of the activities of the group along with the details regarding the preparation of a three-year rolling plan for 2021-2023 and appreciating the members/contributors for volunteering to participate in various activities.

8. ICID Central Office has shared the minutes of the WG and requested the members/contributors to submit their reports (about 8 pages) directly with the WG Chair and copy to ICID CO for review and issue of guidelines for preparation of detailed reports.

**SUPP:** ICID Central Office has received an email of 30 July 2024 from Dr. Chung Fend Ding (Chinese Taipei Committee), member of the group and shared a case study report of Taiwan titled “The Promotion Framework of Advanced Water Saving Irrigation in Taiwan”. Dr. Chung Fend Ding has shared this information to President Hon. Dr. Ragab, Chairman of the group & Vice-Chair VPH Dr. Yella Reddy, for information. Responses are awaited from other contributors.

9. The chair observed that some of the activities shown in the 3-year rolling plan (**Annexure-2**) are supposed to be completed by 2023. The respective theme leaders/champions are requested to accomplish the targets and report during the scheduled meeting in Sydney during September 2024.

10. WG Chair will provide further updates during the meeting.

### **WG-WFE-N Agenda Item 4: Road Map to ICID Vision 2030: Activities on Water-Food-Energy-Nexus**

11. During the Vizag. meeting (2023), WG reviewed the activities such as Goals/Strategies, Actions, Outcomes/Outputs, Milestones and assigning Lead Persons as part of Road Map to ICID Vision 2030 and updated it. The updated status of the progress on Road Map to ICID Vision 2030 of the WG is at **Annex 3**. As part of the Road Map, the WG informed that International Workshop of the group will be held in September 2024.

12. During virtual meeting, Chair appreciated the efforts of WG and informed that all the activities and 3-year rolling plan of WEF-Nexus are in very much in tune with the vision of ICID and part of Road Map to ICID Vision 2030, to eliminate poverty and hunger through sustainable rural development.

### **WG-WFE-N Agenda Item 5: Updating Multilingual Technical Dictionary (MTD)**

13. During the virtual meeting, the WG informed that the importance of the Multilingual Technical Dictionary (MTD) and efforts were made. The new terminology like Nexus and related terms will be included in the MTD for the members benefit for better understanding the concepts. Further, it was noted that Mrs. Narges Zohrabi (Iran) member of the WG has taken a responsibility as Coordinator of the MTD of the group and requested to coordinate with the members for update the MTD with new additions.

14. Further, it was noted that Mrs. Narges Zohrabi has provided a large number of items for inclusion in the MTD of the group and found many of them were out of the scope of the WG and pertain to other WGs. Chair requested Mrs. Zohrabi to scrutinize and send appropriate list pertaining to the mandate of the group for enabling them to include in the MTD.

15. Mrs. Zohrabi agreed to scrutinize and provide the appropriate terminology pertaining to subjects and areas of WEF-Nexus only. Mrs. Zoharabi will further updates at the meeting.

**WG-WFE-N Agenda Item 6: International Workshop on ‘The Water-Energy-Food-Nexus: Applications & Impact on Societies, Environment and Ecosystem’ in September 2024 at Sydney, Australia**

16. As part of the Action Plan 2030, the WG is organizing the International Workshop on 01 September 2024 from 08:00-10:00 Hours and 10:30- 12:00 Hours during the 75<sup>th</sup> IEC meeting in September 2024 at Sydney, Australia on the theme ‘The Water-Energy-Food-Nexus: Implementation and Examples of Applications’ and sub-themes are – (i) Approaches to calculate the WEF Nexus Index; (ii) Quantifying the WEF Nexus at field, regional and country scales; (iii) The spatial distribution of the WEF Nexus and the trade-offs to improve the WEF Nexus across different scales; (iv) Institutional and Governance issues in implementing the WEF Nexus (v) WEF Nexus application and benefit at transboundary scale; (vi) Quantifying the climate change impact on the WEF Nexus; and (vii) WEF Nexus impact on the Societies, Environment, and the Ecosystem.

17. In March 2024, ICID Central Office has circulated the ‘call for papers’ of the WG Workshop to all members of the group and other stakeholders of ICID in consultation with the Chair, Vice-Chair and Secretary and requested them to participate and contribute their paper/presentation.

18. In response, 13 abstracts of the authors for the WG workshop were received. The ‘Review Committee’ of the group has evaluated these abstracts and selected 11 abstracts of the Authors and suggested the ICID CO to invite full length papers from the authors for the WG workshop. After reviewing the full-length papers, ICID Central Office has received 10 full length papers (8 are finalized and 2 are under revision) from ‘Review Committee’.

19. The Chair informed that all the authors of approved papers have been communicated and requested them to prepare well to reach Sydney and present their papers during the international workshop scheduled on 1<sup>st</sup> September 2024.

20. The chair informed the members that the IWMI has shown the interest to join the Workshop and present few papers relevant to the theme. This indicates that the working group is able to draw the attention of international organizations through its varied activities.

21. Chair may apprise the members of the group during the meeting.

**WG-WFE-N Agenda Item 7: Publications of the Working Group**

22. Regarding the Publications of the WG, the Chair has discussed in detail the 3-year rolling plan activity of the group. The type of output (Document/Report) possible, contributors, and completion dates were noted during virtual meeting. During the WG meeting, it was noted that all contributors work systematically to reach the milestones as per the approved plan.

23. The chair expressed satisfaction and informed that the working group and its members have contributed for publishing the following reports / proceedings / papers:

- (a) Report on Advances in Water Saving Methods.2023 (As part of ‘Water and Crop’ Working Group)
- (b) Papers presented for International Workshop on the Water Energy Food Nexus: Implementation and Examples of Applications, 3-10, October, 2022, Adelaide.
- (c) Proceedings of International Workshop on the Water Energy Food Nexus: Implementation and Examples of Applications, 1-8, November, 2023, Visakhapatnam
- (d) Bio saline Agriculture as a Climate Change Adaptation for Food Security (Contributor: PH Ragab)
- (e) Emerging Research in Alternative Crops: Environment & Policy 58 (Contributor: PH Ragab)
- (f) Micro Irrigation Workshop: World Water Policy Journal (Contributor: PH Ragab)
- (g) Circular and Transformative Economy (Contributor: VP Sylvester)
- (h) Large number of papers (6) published by VP Sylvester and team, South Africa

24. The Chair informed that the all the above publications are uploaded to the website of WG and available for all interested users.

25. The Chair thanked VP Dr. Sylvester for sharing their six published papers on Water Energy Food-Nexus and for allowing to put in the WG website for access to all members.

26. WG Chair may apprise the members during the meeting.

**WG-WFE-N Agenda Item 8: Exchange of information, knowledge & networking –website**

**WG-WFE-N Agenda Item 8.1: Website of the group**

27. The WG website [https://icid-ciid.org/inner\\_page/147](https://icid-ciid.org/inner_page/147) has been updated with the membership list, agenda, minutes, paper presentation, publications etc. Members are requested for their active participation in the activities of the WG and facilitate exchange of information, knowledge, and experience, as well as networking on the topic in order to keep themselves up-to-date with new developments in the various activities of the group. Members are also requested to submit papers and presentations related to the WG’s scope of work to the ICID Central Office for uploading to the WG’s website.

28. In order to enrich the WG website, the proceedings of the WG workshop held in November 2023 at Vizag., Andhra Pradesh, India and WG technical report titled “New Advances in Water Saving in Irrigation” based on the erstwhile Working Group on WATER & CROP have been uploaded on the WG website ([https://icid-ciid.org/icid\\_data\\_web/25ConWorkshop-WFE-N.pdf](https://icid-ciid.org/icid_data_web/25ConWorkshop-WFE-N.pdf)) and ([https://icid-ciid.org/icid\\_data\\_web/25CongWorkshop\\_ReportNewAdvances.pdf](https://icid-ciid.org/icid_data_web/25CongWorkshop_ReportNewAdvances.pdf)) for dissemination.

29. In order to ensure regular contribution of the member’s, Working Group is encouraged to make full use of Zoom platform for virtual meetings in between face-to-face meeting during IEC. The Chair informed that WEF-Nexus working Group is utilizing the online platform provided by the ICID effectively for conducting webinars and online meetings periodically.

30. Chair will provide further updates at the meeting.

**WG-WFE-N Agenda Item 8.2: Webinar / Web-based Seminar**

31. In order to promote the webinars of the WG, a WG webinar was organised on ‘Application of Models in Water-Energy-Food Nexus’ was delivered on 11 April 2024 [https://icid-ciid.org/inner\\_page/246](https://icid-ciid.org/inner_page/246)). Prof. Dr. Ragab (UK), President Hon. ICID and Chairman of the WG has introduced the webinar. Dr. Rajendra Singh (India), Dr Luxon Nhamo (South Africa), Dr Alok K. Sikka (IWMI) and Dr. K. Yella Reddy, Vice President Hon. India and Vice-Chair of the WG were the Speakers and Moderator of the Webinar. The webinar was well attended by more than 170 participants from across the globe. The titles of the topics presented by the speakers are listed below.

S. No	Topic	Presented by
1	Development and Application of Water Energy Food Nexus Model	Rajendra Singh, Professor IIT, Kharagpur, India
2	The integrative analytical WEF Nexus model: Its Applications and Derivatives	Luxon Nhamo, Sylyster Mpandeli et al, WRC, South Africa
3	Integrated Modelling for Addressing WEF-Nexus	Alok Sikka & Nexus Gains India Team

32. The chair informed the members that the webinar was one of the best conducted by ICID and the three eminent experts have made excellent presentations and it was attended by more than 170 participants across the globe. All the presentations are uploaded to the WG Website.

33. The group may further discuss and suggest suitable topics along with names of expert, if any, for organizing the webinar of the group.

34. Chair may provide further updates at the WG meeting.

**WG-WFE-N Agenda Item 9: Any other business**

35. **ICID Members' Profile Section:** At the Vizag. meeting (2023), Chair informed the members about the new initiative of ICID providing WG members to access their profile section using their dedicated account. Further, he informed that ICID CO vide email of 9 July 201 <<https://icid.bmeurl.co/C7D4D2E>> informed all members on how to access their account and change their password to maintain accuracy. To maintain accurate information, members are requested to review and update their information using their credentials. Accordingly, ICID Central Office has requested all members of the WG to access their profile and update the same. Chair requested all members about the importance of assessing Members’ profile for reviewing and continuous updating of their respective information. For more information, please refer to inside back cover page.

36. **Register on World Irrigation and Drainage Schemes (WI&DS):** At the Vizag. meeting, Chair encouraged the members to share appropriate data in the context of ‘Register on World Irrigation and Drainage Schemes

(WI&DS)’. In this regard, ICID was taken an initiative to document the development of irrigation projects 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 Gross Command Area can submit their information for inclusion in the register. The irrigation projects approved by National Committee/ ICID Central Office for inclusion are entitled to Certification. Chair encouraged the members to urge all irrigation and drainage scheme owners, managers, and researchers across the world and especially in our member countries for contributing to the register. Chair also informed the members that as per ICID Central Office, this facility is also extended to non-member countries if the information is received from an authorized agency. The review process and other details are outlined on the portal <<https://wip.icidevents.org/>> in detail.

**37. WEF-Nexus WG participation in the World Water Forum 10, Bali:** The Chair informed that the Vice Chair Dr K Yella Reddy and other members of Working Group including President Dr Marco Arcieri and Vice president Dr Sylvester Mpandeli have attended the World Water Forum 10 in Bali during April 2024 and have successfully organized a special session on Water Energy Food-Nexus. The Chair has thanked Vice President Alireza Salamat for coordinating with the organizers of WWF10 and conducting the special session. The list of papers presented during the workshop are presented below. The president Hon. requested the speakers to share their presentations for uploading into the website of the WG.

**38. Role of Women in Water:** Member of the WG Mrs. Narges Zohrabi made an appeal to recognize the importance of gender and indicated following topics i) Women in Governance and Transboundary Water and iii) Women in WEF-Nexus. She suggested that a Webinar can be organized to recognize the role of women. The chair welcomed the idea and requested Mrs Narges Zohrabi to take lead to prepare the details and present in Sydney meeting for inclusion in the 3-year rolling of the WG.

<b>S. No</b>	<b>Title of the Presentation</b>	<b>Speaker</b>
1	Accelerating Progress Towards Sustainable Development through the Water, Energy- Food Nexus	Sylvester Mpandeli
2	The Water- Energy- Food- Nexus: Applications & Impact on Societies, Environment and Ecosystem	K Yella Reddy
3	Use of Desalinated Seawater for Irrigation: Trends and Perspectives	Marco Arcieri
4	Pathways for Transformation of Irrigation Water Management from Field to System in Changing Climate: Example from Africa and Asia	Mohsin Hafeez
5	Smart Irrigation Management Initiatives in Iran: Challenges and Improvements	Dehghanisanij
6	Leveraging BI Technology for Efficient Water Management in Agriculture Across Saudi Arabia	Lebdi Fethi
7	Transitioning into the Digital Era: Innovative Tools for AWM	Salman Maher
8	Urging the Market Innovation to Meet the Customers' Needs	Jean Marc
9	Smart Irrigation: Opportunities and Challenges	WU Wenyong
10	Enhancing the Resilience of Water and Agriculture Sectors to Climate Change in Southern Africa	Sylvester Mpandeli

**39. Capacity Building on WEF-Nexus:** During virtual meeting, Vice President Dr Sylvester has informed that their team has initiated capacity building activities in South Africa through Winter Schools and requested that their initiatives could be aligned with the agenda of WEF-Nexus WG of ICID. The Chair appreciated the initiative and indicated that ‘Capacity Building’ can be added to the agenda of the WG. WG Chair requested VP Dr Sylvester to involve other members and prepare the detailed capacity building proposal for inclusion in the 3-year rolling plan.

**40. Desalination of Sea Water:** During virtual meeting, President Dr Marco Arcieri and VP Dr K. Yella Reddy informed that they have attended a special session on ‘Desalinization of Sea Water and Future Ahead’ during the

World Water Forum 10 at Bali and learnt many new developments taking place in desalination. The extraction of heavy metals, minerals and salts from brine offering commercial value to the industry and the cost of desalination for water is becoming much cheaper. President Dr Marco Arcieri suggested that there is need to have Task Force to go into more details and prepare action plan for ICID. The Chair informed the members about his involvement in scrutinizing one international project in Gulf Area and indicated that 'Sea Water Desalination' is going to offer solutions for meeting future water demands. He requested President Dr Marco Arcieri to make a special presentation on 'Sea Water Desalination-Recent Developments' during the WG meeting in Sydney.

41. **Cairo Water Week: During virtual meeting**, the Chair informed the members that WEF-Nexus is one of the topics for the Cairo Water Week to be held in October 2024. The members were requested to also attend the Cairo Water Week and share their experiences on WEF-Nexus and make presentations. He offered to coordinate with the organizers and get required approvals for the interested participants.



**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.

**A. Members and their attendance at 2022, 2023 and 2024 Meetings**

Sl. No.	Members	Member from (Year)	2022		2023		2024 Virtual Meeting	Remarks
			Self	Contributed	Self	Contributed		
1.	PH Dr. Ragab Ragab, <b>Chairman</b> (UK)	2007	•		•		•	
2.	VPH Dr. K. Yella Reddy, <b>Vice-Chair</b> (2022) (India)	2009	•		•		•	
3.	Dr. Mahdi Sarai Tabrizi (Iran) <b>Secretary</b> (2022)	2021			#			
4.	Dr. Marco Arcieri (Italy)	2014	•			•	•	Member
5.	Ir. Adang Saf Ahmad (Indonesia)	2015	#			•		Member
6.	Dr. P. Soman (Direct Member), JISL	2015						Member
7.	Prof. Won-Ho Nam (Korea)	2017	•			•		Provisional Member
8.	Dr. Chung-Feng, Ding (Chinese Taipei)	2018	•			•	•	Provisional Member
9.	Prof. Dr. Zeinab Hussien Behairy (Egypt)	2018	•				•	Member
10.	Eng. Karshiyev Rustum Jurayevih (Uzbekistan)	2019	#					Provisional Member
11.	Mr. Felipe Dantas (Australia)	2019					•	Provisional Member
12.	Dr. Noppadon Kowsuvon (Thailand)	2021	•		•		•	Member
13.	Mr. Watchara Suiadee (Thailand)	2021	•		•			Member
14.	Mr. Chaisri Suksaroj (Thailand)	2021				#	•	Provisional Member
15.	Prof. Cheh-Shy Ting (Chinese Taipei Committee)	2021				•		Provisional Member
16.	Dr. Peng-Jui Wang (Chinese Taipei Committee)	2021				•	•	Provisional Member
17.	Mr. Carl Walters (Australia)	2021				#		Provisional Member
18.	Mr. John William O'Connor (Australia)	2021				•		Provisional Member
19.	Dr. Vishnu Prasad Pandey (Nepal)	2021				•		Provisional Member
20.	Dr. Deepak Khare (India)	2021				•		Provisional Member
21.	Dr. Man Singh (India)	2021	#					Provisional Member
22.	Mrs. Narges Zohari (Iran)	2021			•		•	Provisional Member
23.	Mr. Lu Hui (Thailand)	2021					•	Member
24.	Dr. Junzeng Xu (China)	2021				•	•	Provisional Member
25.	Mr. Liangsheng Shi, YP (China)	2021				•	•	Provisional Member
26.	Asst. Prof. Dr. Piyatida Ruangrassame, Observer (Thailand)	2021	•			•	•	Provisional Member

Sl. No.	Members	Member from (Year)	2022		2023		2024 Virtual Meeting	Remarks
			Self	Contributed	Self	Contributed		
27.	Mr. Yukiya Saika (Japan)	2021	•			•	•	Member
28	Ir. LIU Dongzhe (China)	2022				•	•	Provisional Member
29	Dr. Amani Alfaraa (Canada)	2022	#					Provisional Member
30	Mr. Abbas Fadhel (Iraq)	2022			#			Provisional Member
31	Mr. Basim Tuama (Iraq)	2022			#			Provisional Member
32	Prof. Dr. S.Vishnuvardhan (India)	2022	#			•		Provisional Member
33	Engr. Mustafa Demir (Turkey)	2023				•	•	Provisional Member
34	Engr.Muhammed Imran Kulat (Turkey)	2023				•		Provisional Member
35	Dr. Mesut Kocak (Turkey)	2023				•	•	Provisional Member
36	Dr. Behzad Navidi Nassaj (Iran)	2023				•	•	Provisional Member
37	Dr. Luxon Nhamo (South Africa)	2023				•	•	Provisional Member
38	Prof. Tafadzwa Mabhaudhi (South Africa)	2023				•		Provisional Member
40	Secretary General, ICID		•		•		•	
<b>Permanent Observers</b>								
1.	FAO representative							
2.	Mr. Herbert H. Van Lier, CIGR							
3.	Prof. D. Wrachien (Italy)							
4.	ICRISAT representative							
<b>Observers</b>								
1.	Mr. Syaiful Mahdi (Indonesia)	2015				•		Observer

**B. New Nominations received from the National Committees**

Sl. No.	Name	Country	Remarks
01.	Dr. Ming-Che Hu	Chinese Taipei Committee	Recommended as member, subject to his presence else provisional member
02	Dr. Tony Chih-Sheng	Chinese Taipei Committee	Recommended as member, subject to his presence else provisional member
03.	Dr. Hao-Che Ho	Chinese Taipei Committee	Recommended as member, subject to his presence else provisional member
04.	Eng. Shinji FUKUDA	Japan	Recommended as member, subject to his/her presence else provisional member

# Through representation

Annex 2 [Appendix XV, Item 3]

**THREE YEAR ROLLING PLAN OF THE WG**



S. No.	Activity	Contributors	Output type	Completion date (approx.) mm / yyyy	Remarks
1.	To prepare an overview document on the state of the art on improving water use efficiency and productivity within the nexus	Zeinab Behairy John O'Connor Ragab Man Singh Mahdi Sarai Tabrizi	Document/Report	09/2024	Dr. Vishnu can help with some of the review work together with other colleagues who will be associated with this activity
2.	To produce a document of impact of climate change and possible use of non-conventional less water consuming crops	Ragab Hui LU Marco Arcieri	Document/Report	09/2024	Dr. Ragab 2 Books have been published by Springer
3.	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	John O'Connor Ragab Man Singh Liangsheng Shi Mahdi Sarai Tabrizi Marco Arcieri	Document/Report	09/2024	To prepare an overview document on the state of the art on agricultural intelligence and mobile APP for water, crops and field
4.	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	Yella Reddy Chung-Feng Ding Peng-Jui Wang Zeinab Behairy Carl Walters (and colleagues) Won-Ho Nam Peng-Jui Wang Mahdi Sarai Tabrizi India: Yella Reddy, Man Singh S. Africa: Sylvester, Sue Walker	Document/Report	09/2024	Carl - Will be pursuing the App Development to support energy, water use decisions and look forward to arranging the presentation and reporting on this at the Workshop with my colleagues
5.	To organize international workshops, seminars or symposia on the Nexus topic. Adelaide, Australia	Ragab & All Carl Walters	Proceedings	October 2022	Completed and Proceedings are available at ICID web site.
6.	Internal Presentations: WG meeting, Marrakesh, Morocco CWR assessment in southern Italy	Chung-Feng Ding Peng-Jui Wang Man Singh P. Soman	PPT presentations	November 2021	Completed and Presentations are available at ICID web site. (Part of the workshop 2023 Vizag 2023)

<b>S. No.</b>	<b>Activity</b>	<b>Contributors</b>	<b>Output type</b>	<b>Completion date (approx.) mm / yyyy</b>	<b>Remarks</b>
7.	International Workshop Presentation Adelaide, Australia	Chung-Feng Ding Peng-Jui Wang Man Singh Won-Ho Nam Peng-Jui Wang P. Soman Hui LU	PPT & Proceedings	October 2022	Completed and Proceedings are available at ICID web site.
8	Webinar on WEF Nexus. Application of Models.	Yella Reddy & Ragab Ragab	Presentations	April 2024	Completed and Presentations are available at ICID Web Site
9	Capacity Building / training on WEF Nexus management and application	Sylvester Mpandeli et al.	Training Workshops	09-2024 to 09-2026	Training Documents
10	Contribution to WWF10, Bali, Indonesia	Yella Reddy and Ragab Ragab	Presentations	May 2024	Completed. Presentations will soon be uploaded.
11	Desalination within the WEF Nexus	Marco Arcieri, et al.	Workshops/ Webinar/ Presentations.	09-2024 to 09-2026	Document & Presentations
12	Governance and role of Women within the Nexus.	Narges Zohrabi	Webinar/ Presentations	09-2024 to 09-2026	Document & Presentations
13	WG output publication close to the end of its mandate. Compilation of the different outputs presented in the above activities.	Ragab & ALL	ICID Book	Continuous until December 2026	Draft at earlier date in 2026



ROAD MAP TO ICID VISION 2030 – ACTIVITIES OF NEW WG-WEF-N

Goals/ Strategies	Activities	Outcomes/ Outputs	Milestone for Year 2018	Milestone for Year 2019	Milestone for Year 2020	Milestone for Year 2021	Milestone for Year 2022	Milestone for Year 2023	Milestone for Year 2024	Resolution Lead Person
<b>Strategy 5:</b> Supporting water productivity enhancement	5.3 Develop guidelines on efficient use of water in crop production	Guidelines	Outline of guidelines – introduction	Release the first draft guidelines	Finalise the draft guidelines and publish	Tbc next meeting	Tbc next meeting	Tbc next meeting	Tbc next meeting	Merge Item 5 and B1. Dr Marco Arcieri (Italy)
<b>Strategy B1:</b> Supporting Development of Appropriate Policies	1.13 Technical Report on Efficient Use of Water in Crop Production	Report	Prepare the first draft report for discussion	Release the second draft report	Finalise the draft report and publish	Tbc next meeting	Tbc next meeting	Tbc next meeting	Tbc next meeting	Dr Marco Arcieri (Italy)
<b>Strategy C3:</b> Promoting Regional Cooperation	3.2 International Workshops/seminars on 'Improving Water Productivity in the frame work of Water Energy Food Nexus'	Workshop proceedings	Announcement of workshop	Organizing Workshop in Canada	Publication of selected papers in the Irrigation and Drainage Journal	<b>Completed</b>				VPH Laurie C Tollefson (Canada)
<b>Strategy D2:</b> Developing Technical Documents in Non-technical Language	2.2 Crop – Water-Energy Nexus	Technical Report		Workshop	Workshop	Tbc next meeting	Tbc next meeting	Tbc next meeting	Tbc next meeting	Dr K Y Reddy (India)
<b>Strategy E2:</b> Strengthening Extension Services with AWM information						Tbc next meeting	Tbc next meeting	Tbc next meeting	Tbc next meeting	Dr Nader Heydari (Iran)
<b>Strategy E3:</b> Developing and Promoting Tools of AWM	3.1 Support research and development of modelling tools	Development of suitable Models, Sensors, Tools for field use	Prepare action plan	Draft report on various developments	Consolidation and final report	became part of the WG report	report finalized	The report is published by ICID as a chapter in the WG report	<b>Completed</b>	Dr Ragab Ragab
<b>Strategy F3:</b> Technical Training of Young Professionals from Member countries	3.9 Training on W-E-F Nexus	Conduct Training workshops		Training workshops					Tbc next meeting	VP Sylvester.

