MINUTES OF THE 70TH MEETING OF

INTERNATIONAL EXECUTIVE COUNCIL (IEC) OF ICID

Bali, Indonesia
Opening Plenary (First Session): 04 September 2019, 09:00 – 11:10 hours
Second Session: 07 September 2019, 09:00 – 13:15 hours
Third Session: 07 September 2019, 14:00 – 18:15 hours

The International Executive Council (IEC) is vested with the management of the affairs of the International Commission on Irrigation and Drainage (ICID). The IEC considers all matters of policy which may be initiated or sponsored by any member National Committee or Office Bearer or by the Management Board, and may itself initiate and determine or otherwise advise and lay down any matter of policy. All matters affecting the executive or administrative function and financial liabilities of ICID must come up before the Council and its decision shall be conclusive. The IEC consists of the Office Bearers and representative from each National Committee and meets annually.

Opening Plenary (First Session): 04 September 2019, 09:00-11:00 hours

The 70th meeting of the International Executive Council of ICID was organized in three sessions. The Opening Plenary was aimed at addressing all stakeholders, experts, representatives, partners and observers with the objective to communicate issues of general concern and also presenting ICID annual awards and recognitions. The opening plenary was attended by more than 1471 delegates from 53 countries. They participated in the various working groups, task teams and committees in the following four days. The main session of IEC, which was conducted in two sessions on 07th September, took all decisions, based on the outcomes and recommendations of the work bodies and permanent committees. The list of participants who attended the main session of 70th IEC meeting is given in **Annex 1, page 19** and includes representatives of 31 National Committees, 10 Office Bearers, 06 past Presidents and 10 past Vice Presidents.

IEC Minutes Item 1: Welcome and opening remarks by the President

1. President Mr. Felix B. Reinders welcomed the members to the 70th IEC meetings. He thanked INACID for making excellent arrangements for the 70th IEC meetings. The Council observed one-minute silence in remembrance of VPH Dr. (Delft) Ir. Soeyono Sosrodarsono from Indonesia and other departed souls from ICID fraternity.

2. In his opening remarks, the President emphasized the opportunity to spotlight where ICID – and various stakeholders of the irrigation and drainage sector as a whole – needs to come together to promote sustainable management of water for agriculture worldwide. The President highlighted the main achievements of the Commission during the last year since the 69th IEC meeting at Saskatoon and impressed upon a coherent approach towards the mission of ICID among its various stakeholders.

IEC Minutes Item 2: Launch Announcement of Celebrations of 70th Year of ICID Formation by the President

3. President Felix then made the launch announcement of the Celebrations of 70th Year of ICID Formation which was kick started on ICID Foundation Day on 24th June 2019 in New Delhi by organizing a Seminar on 'Leveraging Water Security for Sustainable Agricultural Water Management' and will be concluded with the 24th ICID Congress and 71st IEC Meeting on 28 September 2020 in Sydney, Australia.

IEC Minutes Item 3: Scoping out the issues to be addressed during the workbody meetings: Secretary General, Chair of PCTA and Chair of PCSO

4. Secretary General Ashwin B. Pandya introduced the Agenda for the 70th IEC meeting and provided to the members an overview of the important issues before the Council such as the review of the action plans identified under Road Map to ICID Vision 2030, High Level Advisory Group meeting on "Policies of Agriculture Water Management to End Rural Poverty", Independent Service Unit related to ICID mission, activities planned for the year-long 70th ICID Celebrations, Knowledge Portal, establishment of Regional Nodes under IRPID Scheme and other important issues that will be covered during the workbody meetings. He requested the chairs and members of various workbodies to use the updated agenda notes with supplementary information uploaded on the website for the meetings of the Council, the Permanent Committees and Workbodies.

5. VPH Dr. Ding Kunlun, Chairman, PCTA acquainted the members with the four thematic groups of Basin, Knowledge, Schemes and On-Farm under which the workbodies under PCTA are organized and the review of these thematic groups by their co-theme leaders, who are Vice Presidents of ICID, during the PCTA meeting and at IEC, where one of the strategy themes will be presented on rotation basis. He emphasized that the establishment of a new workbody should be solely based on the Scoping Documents, clearly outlining its mandate and purpose. Even the extension of an existing workbody after completion of its duration, should be based on the progress achieved on the mandated activities. He stressed the need to stick to the laid down guidelines and procedures for the improved functioning of the WGs. He exhorted the Chairs of workbodies for the efficient management of time allocated for the WB meetings by focusing on the relevant topics for discussions, encouraging virtual meetings of the workbodies in between annual meetings, reaching out to international partners and effective use of ICID News in publishing the articles of international workshops organized by their workbodies. He emphasized the need for the presence of Workbody Chairs, who are ex-officio members of PCTA, to present the reports of their respective WBs during the PCTA meeting in order to help PCTA to make appropriate recommendations to the Council. He emphasized the role of Co-Theme Leaders and WB Chairs in the existing monitoring mechanism for assessing the progress achieved in the activities identified under various strategies which form part of the Action Plan 2018-22 of the Road Map to ICID Vision 2030.

6. VP Dr. Brian T. Wahlin, Chairman, PCSO made a short presentation on the important aspects that various Working Groups required to pay attention such as monitoring the progress achieved under Action Plan 2018-22. He requested the presence of Chairs of RWGs and Committees and WBs, who are ex-officio members of PCSO, for reporting the outcomes of their meetings to PCSO. He informed that the PCSO meeting is open to all and briefed about ICID Knowledge Portal, which is currently in testing phase.

IEC Minutes Item 4: Presentation by the National Committees: Indonesia, Myanmar and Nigeria

7. Dr. Mu Mu Than, the representative of Myanmar National Committee of ICID (MNCID) briefly presented the activities of MNCID, irrigation and drainage facilities in Myanmar with its historical perspective, and how they resulted in increased Agriculture activity in Myanmar. Dr. Than informed the gathering about the three kinds of work being carried out by the Government of Myanmar in irrigation water management - Plot Irrigation System (Gravity Irrigation), Rotational System (Water Scarcity Area) and Establishment of WUG/WUA (Pilot Project). She said the main challenges faced by Myanmar at present are related to climate change, whilst issues of aging infrastructure, sedimentation and institutional framework, along with budget constraint and limited technical knowledge also remain to be addressed. She concluded her presentation with solutions identified for overcoming the problems such as structural measures; operation, maintenance and modernization of irrigation systems; instrumentation of irrigation canals; land consolidation and non-structural development; farmers participatory approach; capacity building; international relations and upgradation of irrigation water management to cope with climate change. The PowerPoint presentation made by Dr. Mu Mu Than is available at http://www.icid.org/ppts2019_mncid.pdf

8. The representative of Indonesian National Committee of ICID (INACID) presented the report bringing out the important aspects regarding the Agriculture Water Management in the country. It is brought out during the presentation that Indonesia faces many challenges in terms of water supply and demand throughout its archipelago as is the case with any other developing country. This is due to unbalanced population growth, increased water stress areas and declined water quality, clustered main food source crops along with the climate change effect, which put pressure on irrigation infrastructure and agricultural development. To cope with such challenges, the Indonesian Government has taken a number of measures, such as formulating policy direction in terms of Food Security, Water, Energy and Environment National Priority; increasing food availability, quality and accessibility; improving the environment quality; increasing water quantity, quality and accessibility; strengthening disaster resilience and fulfilling the needs through increasing New and Renewable Energy. The INACID NC presentation is available at http://www.icid.org/ppts2019_inacid.pdf

9. The NC presentation made by the Nigerian National Committee of ICID (NINCID) representative gave a brief overview about country's location, climate, land mass, elevation, diversity and population size, which stood at 182 million, the largest in Africa and 7th in the world. The presentation showcased the organizational and functional aspects of NINCID and highlighted NC's contribution to various ICID activities since its joining in 1979 as chair/members of ICID workbodies and office-bearer of the Commission. The presentation provided an insight into country's water resources potential and water resources development challenges such as inadequate reliable data, climate change impact, etc. The presentation also provided a detailed description about the irrigation, drainage and flood management scenario prevailing in Nigeria, wherein most of the large and medium scale schemes are public-owned, characterized by large dams and pumping facilities and categorized into Federal Schemes, State Schemes, FADAMA (Fertile alluvial soils with shallow water table) Schemes and Smallholder Schemes. NINCID representative informed that under the National Irrigation Development Program drafted for the period of 2016-2030, Nigeria will develop 0.5 million ha under Federal Schemes and 1.5 million ha under state and private sector, while addressing flood management through dams and dikes and river training and dredging. The presentation brought out the key issues such as modernization plans and transformation challenges, which remain to be addressed. NINCID

representative concluded the presentation, sharing the lessons learnt from the country's experience, which would be quite beneficial to the ICID fraternity in tackling the challenges in irrigation, drainage and flood management sectors. The detailed NC presentation by NINCID is available at http://www.icid.org/ppts2019_nincid.pdf

10. H.E Dr. Shavkat Khamrayev, Chairman, Uzbekistan NC (UzNCID) and the Minister of Water Resources of the Republic of Uzbekistan made a speech, giving an overview of their activities in developing the country's water management system, and how they have achieved concrete positive results in managing and using available water and improving the reclamation conditions of irrigated lands. He highlighted the implementation of wise state policies in the water sector and informed that Uzbekistan has managed not only to maintain its irrigation potential since the years of independence, but also reduced annual water withdrawal from 64 to 52 billion m^3 compared to the level of the 1980s. With the holding of the position of the Chairman of the Executive Committee of the International Fund for Saving the Aral Sea (IFAS), he reiterated Uzbekistan's commitment to improve the water management, environmental and socio-economic situation in the Aral Sea Basin and intention to share the transboundary rivers in the Aral Sea basin. He sought the help of ICID to promote a new philosophy "People and the Earth to coexist," utilizing the technologies such as sustainable consumption and smart labor management, with the creation of new culture of water management with an open mind for politicians which would eventually help in overcoming the barriers for water sharing and secure food security by achieving the SDGs. He stressed the need for increased cooperation and closer ties between Uzbekistani Ministry on Irrigation and Agriculture and ICID in the coming years. The text of the speech is given at http://www.icid.org/Speech_UzNCID_Minister.pdf

IEC Minutes Item 5: Presentation of Awards: WatSave, Best Paper, World Heritage Irrigation Structures

IEC Minutes Item 5.1: Presentation of WatSave Awards

11. PH Dr. Saeed Nairizi (Iran), as the Chair of the Panel of Judges for WatSave Award 2019, presented his report and recommended to the Council for bestowing the awards in different categories as follows: **Technology Award** to Mr. Tian Fuqiang (China) for his work "Water and Salt Regulation Scheme Under Mulched Drip Irrigation for Cotton in Arid Regions"; **Innovative Water Management Award** to Mr. James Winter and Mr. Tony Quigley (Australia) for their work on "Trangie-Nevertire Renewal : An Irrigation Infrastructure Modernisation Success Story"'; **Young Professional Award** to Mr. Ali Mahdavi Mazdeh; Mr. Mohammad Bijankhan; Mrs. Narges Mehri; Mr. Hadi Ramezani Etedali and Mrs. Fatemeh Tayebi (Iran) for their work on "Applications of Constant Flow Rate Control Valve in Water Saving" and **Farmer Award** to Mr. Karan Jeet Singh Chatha (India) for his work on "Water Conservation by use of Sprinkler & Drip Technologies in Paddy Crop".

12. President Felix and VPH Dr. Ir. M. Basuki Hadimuljono, Minister of Public Works and Housing, Republic of Indonesia handed over the plaques and the prize monies of US$ 2000 each to the WatSave Award winners. President thanked INACID for the financial support for the WatSave Awards for 2019.

IEC Minutes Item 5.2: Presentation of the Award for the Best Paper in the ICID Journal "Irrigation and Drainage"

13. Out of all the papers published in the ICID Journal "Irrigation and Drainage" during the year 2018, the best paper was announced by PH Prof. Bart Schultz, Chair of EB-JOUR. The Best Paper Award was shared jointly by Fang Wan, Wenlin Yuan, Qingyun Li, and Subing Lü for their work on "Research on Risk and Early Warning System of Inter-Basin Multi-Reservoir Water Transfer-Supply Operation with Consideration of Uncertain Factors", which was published in Volume 67, Issue No.3 of the Irrigation and Drainage 2018.

14. President, ICID handed over the award to the winners.

IEC Minutes Item 5.3: Recognition of World Heritage Irrigation Structures (WHIS)

15. The Chair of the Panel of Judges, VP Dr. Brian T. Wahlin, PCSO Chairman presented to the Council, the report on the historical irrigation and drainage structures identified to be recognized as World Heritage Irrigation Structures (WHIS). Accordingly, the Council accorded its approval to the recognition as "World Heritage Irrigation Structures" to seventeen irrigation structures from: **China (2)**: Hetao Irrigation District, Qianjinbei Irrigation System; **Iran (4):** Abbas Abad Complex, Baladeh Qanat and Water System, Kurit Dam, Shushtar Historical Hydraulic System; **Italy (3):** Berra Irrigation Plant, Migliaro Water Diversion Gat, Panperduto Dam; **Japan (4):** Jukkoku-bori Irrigation System, Minuma-Dai Irrigation System, Kurayasu and Hyakken Rivers Irrigation and Drainage System and Kikuchi Irrigation Systems; **Malaysia (1):** Wan Mat Saman Canal; Sri Lanka (1): Minneriya Reservoir and the **United States of America (2):** Alamo Irrigation System, Theodore Roosevelt Dam. The irrigation structures recognized as WHIS will be included in the ICID Register of WHIS.

16. The President, ICID handed over the "Plaque and a Certificate" to this effect to the owner agencies of these structures.

Second Session: 07 September 2019, 09:00 – 13:15 hours

IEC Minutes Item 6: Action Taken Report on the decisions of 69th IEC and the decisions taken by the Management Board (MB)

17. Secretary General informed that actions on all the decisions by the 69th IEC had been initiated/ completed during the year. The Council endorsed the decisions taken by the Management Board on behalf of IEC in accordance with Article 8.1 of the ICID Constitution and Clause 3.9.2 of ICID By-laws, as listed in **Annex 2**, **page 21**.

IEC Minutes Item 7: Report by the Secretary General

18. Secretary General presented the Annual Report 2018-19, and also presented the physical and financial progress on activities undertaken during the period from April 2019 till date.

IEC Minutes Item 8: Presentation on Strategy Theme "Basin"

19. VP Dr. Naoki Hayashida (Japan), Co-Theme Leader, Strategy Theme "Basin" began his presentation recalling the warm hospitality of Indonesian hosts extended during the 49th IEC meeting at Bali, Indonesia in 1998, which was his first ICID meeting.

20. He then gave a brief overview of how the technical activities of ICID are organized among the four Strategy Themes of On-Farm, Schemes, Basin and Knowledge under the Permanent Committee for Technical Activities (PCTA). The Strategy Theme "Basin", to which he is one of the Co-Theme Leaders, deals with all the basin level environment aspects that impact agriculture water management such as Climate, Floods, Droughts, Sea-water etc. Currently, there are seven WBs, including one Task Team under the ST-Basin – WG-AFM, WG-CLIMATE, WG-ENV, WG-IDSST, WG-MWSCD, WG-SDTA and TT-TWM-AWM.

21. VP Hayashida then presented his assigned task of analyzing the activities undertaken by the WBs under ST-Basin with regard to their respective mandates and outcomes achieved so far and recommendations to improve their functioning.

22. WG-AFM, established in 2018 with the closure of WG-CAFM, may regularly update the Action Plan under Road Map to ICID Vision 2030 based on its new mandate and deliberate upon appropriate flood warning and emergency action plan to reduce human casualties by floods. WG-CLIMATE, in keeping with its mandated activities, should widen the range of collaboration and try to develop some protocols to communicate with international and national societies or organizations and encourage the participation of young professionals in its activities. WG-ENV should carry out the study of "Positive Ecosystem Services from Irrigation and Drainage Systems", collect previous studies on multi-functionalities/ecosystem services in order to enhance ecosystem services of irrigation/drainage system and identify possible measures to persuade policy makers and general public, in keeping with its mandated activities. WG-IDSST has active deliberations; however, with its membership is mainly from the countries drawn from a specific region, the active participation of members from other countries needs to be encouraged in the WG activities. It should implement IWRM, broad-base the stakeholders, monitor the ecological situation in the transition states and collect and disseminate appropriate advanced technology. WG-MWSCD, established in 2016 as a replacement to WG-DROUGHT, is not dealing with the topic 'droughts', but rather resolving conflicts due to permanent water scarcity. Therefore, the WG should have lively presentations and discussions during its planned workshop in Sydney in 2020, with active participation from countries such as India, China and Pakistan, where the problems of conflicting demands of water are severe. The stakeholders of WG-SDTA should strengthen the communications regarding knowledge and concepts, which should include both development and conservation. The WG may promote the complete management of irrigation, drainage, flood and underground water by combining the newest technologies of ICT, IOT and CPS. TT-TWM-AWM, established in 2018, is yet to hold a formal meeting, and may discuss its mandate and action plan.

23. Based on his analytical report, VP Hayashida made the following observations and recommendations for improving the functioning of the WBs under ST-Basin:

(a) WGs are generally functioning quite well and productively, with the activities managed well and advanced according to the decisions of each of the WGs.

(b) Overall, the attendance of members is good, but in some cases, it is limited, as the poor attendance and lack of contribution by the members will lead to reduced productivity and output.

(c) Since most of the subjects covered under the theme Basin are largely correlated to other activities of ICID and other organizations, there is a need for collaboration with relevant specialized international organizations working in these fields.

(d) WGs should promote the exchange of knowledge that takes place within the WG workshops with other agriculture water management professionals by publishing the summary and outcomes in ICID News.

(e) WGs should clearly identify their outputs in a work plan which may include technical reports, position papers, special issues of Journal of Irrigation and Drainage, seminars (internal/international) etc., in accordance with the Action Plan on the Road Map to ICID Vision 2030.

(f) WGs' productivity and necessity should be evaluated carefully, and when mandates and objectives are completed, a final report should be brought out. A final workshop is also recommended even through video conference.

(g) More information and products should be sent to the Central Office sot that they should be timely posted on the websites and updated.

(h) More WebEx meetings should be considered, at least once in a year.

(i) Efforts to attract young professionals should be continued and increased.

(j) All WG chairs and theme leaders should be more conscious about the purpose and the set procedures initially.

24. He concluded his presentation, mentioning that most of the WGs under the ST-Basin are relatively young, considering their years of establishment and should, therefore, continue their activities in line with their mandates, for the time being. However, it is recommended that some WGs should actively collaborate with other WGs, which cover relevant themes. The text of the report is given at **Annex 3, page 23** and the presentation is available at http://www.icid.org/ST-B_ppts2019_hayashida.pdf

IEC Minutes Item 9: International Research Program for Irrigation and Drainage (IRPID) Scheme

25. VPH Dr. Ding Kunlun, Chair of AC-IRPID, gave a brief introduction about the objectives of IRPID Scheme, including its organizational structure, responsibilities and functions. He also provided a brief on the two existing RNs hosted by NCs of China and Iran.

26. He informed the Council that NCs are interested in establishing RNs in various regions, which is a good development since the notification of the revised IRPID Scheme (http://www.icid.org/irpid_scheme.pdf), vide Notification No.6 of 2017 dated 23 February 2017 among ICID National Committees. He apprised the Council about the progress achieved in establishing the RNs, viz. Mediterranean Region by Italian NC, Africa region by Egyptian NC and Central Asian and Caucasus Regions by Tajikistan NC, which were approved by the Council at its 69th meeting at Saskatoon last year. Tajikistan NC is in the process of setting up an IRPID RN in Central Asian and Caucasus Region (CAC-RN) under the framework of existing IRPID Scheme and has approached the countries identified to be partners of CAC-RN. Italian NC is continuing its efforts to establish the Mediterranean RN, while Morocco will henceforth coordinate the setting up of RN in Africa.

27. The Council appealed to the NCs and RNs to populate the Irrigation Research (IrriSEARCH) database template available at http://www.icid.org/addresearchdata.php, which aims to bring together all Agriculture Water Management (AWM) research activities from various NCs on a single platform to help others to learn from their experiences. It noted that IrriSEARCH would continue to act as a window to exchange and showcase ongoing research activities in the irrigation and drainage sector worldwide for various research stakeholders in AWM research and eventually establish ICID as a repository of knowledge in irrigation and drainage sector.

IEC Minutes Item 10: Reports by the Chairs of Permanent Committees

IEC Minutes Item 10.1: Permanent Finance Committee (PFC)

28. VPH Laurie Tollefson, Chairman, PFC presented his report on the 40th meeting of the PFC held on 05 September as given at **Appendix I, page 35.** PFC Chair informed the Council that VP Dr. Marco Arcieri was elected as the Vice Chair of the Committee and would eventually take over as Chair of PFC at the conclusion of the 71st IEC meeting in Sydney, Australia in 2020, to facilitate a smooth transition.

29. The Chair, PFC informed that one of the applicants for Direct Membership, Islamic Development Bank (IsDB) had expressed their desire to be a life member under the Category – Institution, which is currently admissible for a period of up to three years only as per the prevailing membership subscription structure. The Council deliberated on the issue and approved the recommendation of PFC that a Task Force be set up to look into the matter of granting Institutional Life Membership, including revisiting the fee structure. The TF, which will report to PFC, will be chaired by VP Dr. Marco Arcieri, with other members being nominated in consultation with President.

30. As recommended by the Committee, the Council decided to continue with the present share of contribution from ICID events, i.e. 35% share of registration fees for the Congress and Forums, 15% share of registration fees for the IEC meeting and 5% share in case of a separate Regional Conference, Micro irrigation symposium, and International Drainage Workshop where ICID logo or banner is used, as stipulated in ICID By-law 7.4, and fixing the registration fee for ICID events in US Dollars.

31. The Council has granted 'in principle' approval to the establishment of a Service Unit (SU) in ICID along with proposed staff, as recommended by the Committee. Towards this purpose, a Service Advisory Group will be established to guide and monitor the development of rules and regulations and further action in setting up SU in ICID.

32. The Council has taken note of the report on the status of addition to the Central Office building which expects to obtain all statutory requirements by 31 December 2019, and, as per preliminary planning, the total estimated cost will be about ₹ 140 million, out of which 70% will be required in the FY 2020-21 and remaining 30% in FY 2021-22.

IEC Minutes Item 10.2: Permanent Committee on Strategy and Organization (PCSO)

33. VP Dr. Brian T. Wahlin, Chairman, PCSO presented his report on the 30th meeting of PCSO held on 05 September 2019 as given at **Appendix II, page 41.**

34. The Council concurred with the Committee's recommendation for the need to have more ICID members from Latin American and African continents and Central Asian regions and requested that efforts be continued in this direction. The Council was told that providing ICID services in Spanish might as well act as a fillip towards ICID membership drive in Latin American countries.

35. The Council acknowledged that the proposed SU should not become a commercial activity, but remain visible while helping the ICID to become financially stable, as recommended by the Committee. The Council noted with satisfaction the progress achieved in revamping the ICID Website and releasing the Knowledge Management Portal.

36. The Council endorsed the Committee's recommendation that the African NCs should establish Young Professional Forums at National Level, and the Young Professionals' Training Programs should include diverse participants from more African countries, especially from the African NCs. The Council desired that the lessons learnt from WIF3 may be used for the successful organization of the future ICID events, and Young Professionals be encouraged to be included in the National Organizing Committee of future ICID events.

IEC Minutes Item 10.3: Permanent Committee for Technical Activities (PCTA)

37. VPH Dr. Ding Kunlun, Chairman, PCTA presented his report on the 39th meeting of PCTA held on 06 September as given at **Appendix III, page 45.**

38. The Council was apprised about the activities of the existing Regional Nodes of IRPID in China and Iran, and progress in establishing the additional Regional Nodes in North Africa, Mediterranean and Central Asia & Caucasian Regions.

39. The Council endorsed the view of PCTA that the Vision 2030 activities need not remain confined to the deliberations inside the WGs, but needs to grow outside WGs by involving the other agencies and organizations, which will help in promoting and keeping the vision 2030 in focus in larger communities and groups.

40. Based on the PCTA report, the Council pointed out that the recommendations made by VP Naoki Hayashida, Co-Theme Leader, Strategy Theme – Basin be put into practice for further improving the functioning of ICID workbodies.

41. The Council placed on record its appreciation for the host NC for the successful organization of WIF3, which was attended by 1417 delegates from 53 countries, 6 ministers and 31 exhibitors, surpassing any previous event of ICID in terms of attendance.

IEC Minutes Item 10.4: Discussions and Decisions on the Recommendations of the Permanent Committees

42. The Council deliberated on the reports and recommendations of PFC, PCSO and PCTA together in totality and took decisions through resolutions taking note of the report of the Secretary General under Agenda Item 7.

43. The Council adopted the resolutions on the Financial Matters of ICID presented through PFC Report and on the Organizational and Technical Matters of ICID presented through the Reports of PCSO and PCTA, that are placed at **Resolution IEC-1/70 and Resolution IEC-2/70 (pages 11 and 12), respectively.** The Council approved the Audited Accounts of ICID for the Financial Year 2018-19 as given in **Annex R1.1**, **page 13,** and the revised Budget for FY 2019-20, and the proposed Budget for FY 2020-21 as given in **Annex R1.2, page 18**.

44. The Council endorsed the PCTA recommendation that the number of entries per National Committee/Committee under WHIS Scheme be limited to four (4) so as to make the WHIS Scheme sustainable with high quality and prospective applications competitive. The revised WHIS Scheme in keeping with the Council's decision is available at http://www.icid.org/Revised_WHIS_Scheme.pdf

45. On recommendation of PCTA, the Council approved the establishment of Working Group on Value Engineering (WG-VE).

46. The Council approved the membership changes of various workbodies under PCSO and PCTA, and consequently, the updated and consolidated membership of all workbodies is given at **Annex 4, page 27**.

Third Session: 07 September 2019, 14:00 – 18:15 hours

IEC Minutes Item 11: A Road Map to ICID Vision 2030: Activities under ICID Action Plan 2017-2021

47. The Council monitored the progress of activities identified by the WGs, RWGs, NCs and Central Office to implement the strategies to achieve the organizational goals as targeted in the Action Plan appended to the 'Road Map to ICID Vision 2030' for the period 2018-2022, as the Vision Document is designed to be a living and dynamic and rolling in nature and required to be reviewed triennially. The Council is satisfied with the progress achieved so far and endorsed the PCTA recommendation that Vision 2030 activities should not remain confine to the deliberations inside the WGs, but need to grow outside WGs by involving the other agencies and organizations, which will help in promoting and keeping the vision 2030 in focus in larger communities and groups.

48. The Council also endorsed the view of Strategy Theme Leaders that number of parallel sessions may be reduced to the extent possible to allow the members to engage with multiple subjects in different WGs and to facilitate this, the WGs are encouraged to meet virtually for transacting the maximum amount of internal and administrative works.

IEC Minutes Item 12: Task Force to Guide the Partnership Process (TF-GPP)

49. Second Meeting of High-Level Advisory Group (HLAG) on 'Partnerships for Agriculture Water Management' was held on 02 September 2019 at Bali. VPH Dr. Ir. M. Basuki Hadimuljono, Minister of Public Works and Housing, Republic of Indonesia welcomed the dignitaries to the HLAG meeting and President Felix Reinders, Chairman, TF-GPP in his opening remarks set the tone for the meeting. Secretary General Er. Ashwin B. Pandya provided the background information on the HLAG meeting, followed by the presentations from four international partners of ICID, namely, ADB, FAO, IsDB and the World Bank. The ministers/senior officials from Indonesia, Afghanistan, China, Egypt, India, Iraq, Korea, Malaysia, Nepal, Philippines, Portugal, Sri Lanka, Ukraine, Uzbekistan and Vietnam made their remarks on the focused theme "Policies of Agriculture Water Management to End Rural Poverty' during the HLAG meeting.

50. The Council was informed that the TF-GPP, which is established to support HLAG mandate of developing partnerships further on AWM met on 01 September 2019 at Bali. TF-GPP Chair in his report to the Council informed that the issues considered at the HLAG meeting were (i) Financing mechanisms needed for policy translation into action; (ii) Facilitation of technology at field level on a large scale; (iii) Public-Private-People (PPP) partnerships to achieve larger objectives of global food and nutritional security; and (iv) Ministerial deliberations to carve path for policy formulation for sustainable water management through (a) adoption of newer technologies, (b) business investment models and (c) capacity development at various levels of the supply chain.

51. The Council endorsed the report of TF-Chair.

IEC Minutes Item 13: Independent Service Unit (ISU) related to ICID Mission

52. The Council thanked the Special Task Force on Independent Service Unit (STF-ISU) for the detailed report on ISU, which was prepared after extensive consultations among various stakeholders of ICID through questionnaires, virtual platforms, face-to-face meetings, etc. The Council was told that the report had been discussed in great detail during the meetings of PFC, PCSO and PCTA.

53. The Council has taken cognizance of PFC recommendation that the ISU shall be set up in a phased manner as proposed in the report of STF-ISU – (i) Phase I to start ISU as a Service Unit (SU) of ICID, providing service to the stakeholders for generating incidental income to the extent of 20% of total receipt of ICID, and (ii) Phase II to incorporate ISU as a separate legal entity under Indian Companies Act, once SU reaches the turnover to the extent of 20% of ICID receipts in a year.

54. The Council endorsed the recommendations of PFC and granted 'in-principle' approval to the establishment of SU within ICID, with the following riders:

(a) To develop rules of operation and other details including operating procedure
(b) SU to start operation only when rules and regulations are in place
(c) To establish Service Advisory Group as proposed in the proposal to guide and monitor development of rules and regulations and further action in the matter

IEC Minutes Item 14: Status of Future ICID Conferences / Congresses / Forums

55. The Council noted that it has so far approved the venues of the following future major ICID events:

(i) 5th African Regional Conference on Irrigation and Drainage, Marrakech, Morocco, 16-19 March 2020
(ii) 71st IEC and 24th Congress, Sydney, Australia, 22-28 September 2020

56. The Council was informed that the representatives of Moroccan National Committee on Irrigation and Drainage (ANAFIDE) and Irrigation Australia's Committee on Irrigation and Drainage (IACID) had apprised the progress about the preparations for the above events – financial aspects at PFC and organizational and technical aspects at C-CONG and PCSO.

57. Pr El Houssine BARTALI Vice President, ANAFIDE, presented a detailed proposal to host the 72nd International Executive Council (IEC) and 10th International Micro Irrigation Conference (IMIC) at Agadir, Morocco from 26 September to 02 October 2021. Based on his presentation, the Council approved ANAFIDE's proposal to host the 72nd IEC and 10th IMIC at Agadir, Morocco in 2021 and requested the NC to submit a revised proposal in this respect.

58. Ms. Li Ruoxi, Secretary, Chinese National Committee of ICID (CNCID) presented a detailed proposal to host the 73rd IEC and 4th World Irrigation Forum (WIF4) in Beijing, China in 2022 and based on her presentation, the Council approved CNCID proposal to host the 73rd IEC and WIF4 in Beijing, China in September 2022.

59. The Council also noted that ICID Central Office had invited proposals from NCs for hosting the following future ICID events and no proposal had been received till the IEC meeting:

(i) 27th European Regional Conference (2020 onwards)
(ii) 14th International Drainage Workshop (2021 onwards)
(iii) 74th International Executive Council and 25th Congress (2023)

60. The Council asked the Central Office to invite the proposals for the above events and requested NCs to come forward to host these future events.

IEC Minutes Item 15: Celebrating 70th Year of ICID's Formation – To plan out the activities

61. The Council recalled that it had agreed last year at Saskatoon to the proposal to celebrate the 70th year of foundation of ICID beginning from 24th June 2019 and concluding with the 24th ICID Congress in Sydney in September 2020.

62. Secretary General Ashwin B. Pandya informed that as per the decision of the Council, the Celebration kick started with a seminar on 'Leveraging Water Security for Sustainable Agricultural Water Management' on 24 June 2019 during ICID Foundation Day Celebrations at New Delhi. Other activities which has marked the celebrations included (i) introducing integrated approach of Knowledge Management within ICID, in view of the adoption of the 'Road Map for ICID Vision 2030', (ii) launching of #ICID70 on ICID social media platforms, (iii) launching of the new

ICID website with new user-friendly features, structured contents, mobile compatibility, etc.; (iv) launching of the Beta version of the Knowledge Portal with the recently collected resources for wider sharing and dissemination (Abstracts included: 22nd ICID Congress, 23rd ICID Congress, and WIF3); (v) distributing new ICID Coat pins to members and participants and (vi) launching of new ICID Gifts and Merchandise (Ties, Stoles for ladies, Tie pin, Name plates) and collectibles.

63. The Council was informed that other activities planned to commemorate the occasion are: (i) to bring out Coffee Table Book, with visually appealing records of achievements in irrigation and drainage set in ICID member countries with highlights of the operations of each of National Committee, historical background of establishment of ICID and its early years, (ii) to bring out the second edition of the Water Saving in Agriculture by including the recent WatSave Award winning contributions; (iii) to bring out pamphlets and leaflets and (iv) to release a video film in cooperation with NCs and partner organizations highlighting the importance of ICID and its role in poverty alleviation and rural development. SG informed the Council that the occasion will be the most appropriate to recognize the contributions of NCs, Institutional and Company Direct Members and Partner Organizations with the presentation of Citations Plaques to acknowledge their contributions to ICID's growth and fulfilling its mandate.

64. The Council appealed to the National Committees, Office Bearers, Workbody Chairs & Members and partner organizations & stakeholders to contribute to the Coffee Table Book, Special Publications and Video Film with the required inputs from their side.

65. The Council exhorted the NCs and Direct Members to organize special events and functions to commemorate the 70th Year of ICID formation which will eventually create and spread awareness about ICID and its vision, mission and goals among global community. The suggested activities also include organizing essay and drawing competitions related to irrigation and drainage topics and YPs have been requto actively participate in the celebrations.

IEC Minutes Item 16: Election of the Office-Bearers 2019-2022

66. The Council was informed that, as per the provisions of Articles 7.2.3 and 7.2.4 of the ICID Constitution, the 3-year term of Office (2016-2019) of Vice Presidents Dr. (Mrs.) Irene G. Bondarik (Russia); Mr. Waseem Nazir (Pakistan) and Eng. Madhav Belbase (Nepal) would conclude at the end of the 70th IEC and its adjunct study tours.

67. The Council noted that in response to the Central Office's circulars inviting nominations from NCs for the positions of Vice President for the term 2019-2022, two nominations were received in the Central Office – Prof. Dr. Hesham Mostafa Mohamed Ali (Egypt) and Dr, Mochammad Amron (Indonesia) -- by the due date of 07 May 2019.

68. The Council was told that the nomination of H.E. Dr. Shavkat Rakhimovich Khamraev was considered under By-law 2.5 – Nomination by President, wherein the nomination can be received up to one month prior to the IEC meeting.

69. Based on the voting undertaken in accordance with ICID By-laws 2.8 to decide the seniority of the Vice Presidents, the Council elected Dr, Mochammad Amron (Indonesia), Dr. Hesham Mostafa Mohamed Ali (Egypt) and H.E. Dr. Shavkat Rakhimovich Khamraev as Vice Presidents of ICID, for a three-year term 2019-2022, in that order of seniority. As per article 7.2.4 of ICID Constitution, the term of VPs elected at the 70th IEC meeting shall begin at the conclusion of the present Council meeting and its appurtenant study tours and end by the conclusion of the Council meeting and its appurtenant study tours in the year 2022.

70. President Felix congratulated the newly elected Vice Presidents and expressed his happiness at the outcome of the election.

IEC Minutes Item 17: Presentation of ICID Plaques to Retiring Vice Presidents and Chairs of Workbodies

IEC Minutes Item 17.1: Retiring Vice Presidents

71. Citation plaques were presented to the three retiring Vice Presidents for their guidance and services rendered to the ICID activities during their tenure of Office.

(a)	Dr. (Mrs.) Irene G. Bondarik	(Russia)	Vice President	2016-2019
(b)	Mr. Waseem Nazir	(Pakistan)	Vice President	2016-2019
(c)	Eng. Madhav Belbase	(Nepal)	Vice President	2016-2019

IEC Minutes Item 17.2: Retiring Chairs of Workbodies

72. Dr. Fuqiang Tian (China), Chairman, Working Group on Water for Bio-fuel and Food (WG-BIO-FUEL, 2015-2018) was honoured with the presentation of citation plaque for his commendable guidance to the activities of the WG-BIO-FUEL.

IEC Minutes Item 18: Any other business by the permission of the Chair

73. The President declared the 70th IEC meeting closed.

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DR-1/70 [IEC Item 9.4, Para 42]

INTERNATIONAL EXECUTIVE COUNCIL (IEC)
RESOLUTION IEC-1/70: FINANCIAL MATTERS OF ICID

THE Council

Accepting the Report of the Chair of the Permanent Finance Committee;

Noting further the report of the Statutory Auditors M/s. P.K. Chopra and Company; and

Considering the recommendation of the Management Board;

Decides Unanimously

1. To approve the election of VP Dr. Marco Arcieri (Italy) as the Vice Chair of PFC, who will take over as Chair of PFC at the conclusion of the 71st IEC Meeting in 2020 and the nominations of Mr. Delbert M. Smith, P.E. (USA) and Mr. Gao Lihui (China) as members of PFC.
2. That the individuals and companies listed below, accorded the provisional membership by the Direct Membership Administering Sub-Committee be admitted as members of ICID for the periods for which they have paid subscription.
    (a) Maharashtra Water Resources Regulatory Authority (MWRRA), India – Institution (3 years)
    (b) Ningbo Yaofeng Hydraulic Electrics Co. Ltd, China - Company (3 years)
    (c) Agricultural Growth of Rural India (AGRI), India - Institution (1 year)
    (d) Prof. (Dr.) Mitthan Lal Kansal , India - Individual (Life Membership)
    (e) Dr. Ajay Pradhan, India - Individual (Life Membership)
    (f) Islamic Development Bank (IsDB) – Institution (3 years) – Provisionally, subject to payment of membership fees, and can be later upgraded to Life Membership, as and when such provisions are in place.
3. That the National Committees of **Chad, Ethiopia and Niger** be declared as "*Associate Members*" with effect from 1 January 2020 as they have failed to contribute ICID subscription for last three years in accordance with By-law 13.2.
4. To approve the Audited Accounts of ICID for the Financial Year 2018-19 as given in **Annex R1.1**, **page 13.**
5. To approve the Revised Budget of ICID for the Financial Year 2019-20 and the Budget for the Financial Year 2020-21 as given in **Annex R2.1**, **page 18.**
6. To approve the following in respect of establishment of Service Unit (SU) in ICID:
    (a) To establish a Service Unit within ICID along with proposed staff;
    (b) To develop rules of operation and other details including operating procedures;
    (c) To start operation of SU only when rules and regulations are in place; and
    (d) To establish a Service Advisory Group (SAG) to guide and monitor the development of rules and regulations and further action in the matter. The composition of SAG shall be decided in consultation with MB.
7. To continue with the present share of contribution from ICID events as indicated below and stipulated in ICID By-law 7.4, and fixing of registration fee for ICID events in US Dollars.
    (a) 35 percent for IEC with World Irrigation Forum and Congress
    (b) 15 percent in case of ordinary IEC with or without regional conference
    (c) 5 percent in case of stand-alone Regional Conferences, International Workshops, Symposiums etc.
8. To approve setting up of a Task Force to look into the matter of granting Institutional Life Membership for institutions under Direct Membership, including revisiting the fee structure, with VP Dr. Marco Arceiri, Vice Chair, PFC as its Chair, with other members of TF being nominated in consultation with President. TF shall report to PFC.

Appreciates

9. The NCs of Mexico and Canada for contributing the appropriate share of registration fee for 68th IEC and 23rd Congress and 69th IEC, respectively to the ICID Budget.
10. Korean National Committee (KCID) and Korean Rural Community (KRC) Corporation for financial support for organising International Young Professional Training Programme (YP-TP) and International Workshop at Seoul, Korea in April 2019.
11. Chinese National Committee (CNCID) for financial support for organizing International Young Professional Training Programme and International Workshop at Seoul, Korea in April 2019
12. Japan National Committee (JNC-ICID) for contributing an amount of ₹ 0.34 million (US$ 5,000) during the financial year 2018-2019 as a Special Subscription for technical support for YP Activities.
13. Food and Agriculture Organisation (FAO) for providing a sum of US$ 25,250 as a Special Subscription from for organizing a study tour on Solar Powered Irrigation Systems for FAO delegation to India.

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DR-2/70 [IEC Item 9.4, Para 42]

INTERNATIONAL EXECUTIVE COUNCIL (IEC)
RESOLUTION IEC-2/70: ORGANISATIONAL AND TECHNICAL MATTERS OF ICID

THE Council

Accepting the reports and recommendations of the Chairs of the Permanent Committees on Strategy & Organization and Technical Activities;

Considering the endorsement by the Management Board; and

Decides unanimously

1. To approve the Action Plan 2018-22 including activities identified by RWGs and WGs under PCSO and PCTA committed to be achieved over a period of five years.
2. To approve the limiting of entries under WHIS Scheme up to four (4) from a National Committee/Committee with immediate effect.
3. To approve the establishment of Working Group on Value Engineering (WG-VE) under Strategy Theme-Knowledge.
4. To approve the extension of WG-SDRG for one year up to 2020 and a Scoping Document be developed for the new WG.
5. To approve 72nd IEC and 10th IMIC Meeting at Agadir, Morocco from 26 September to 02 October 2021 and 73rd IEC Meeting and WIF4 in Beijing, China in 2022.

Appreciates

6. Indonesian NC for the successful organization of 3rd World Irrigation Forum, a benchmark in the history of ICID events in terms of attendance.

Requests

7. To continue the efforts to bring the countries in Latin American and African continents and Central Asian region to ICID fold.
8. To provide Spanish translation to speed up ICID membership-drive in Latin American countries.

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INDEPENDENT AUDITOR'S REPORT

P.K.Chopra & Co.
Chartered Accountants (Registered)

To

The Members of the International Executive Council
International Commission on Irrigation and Drainage (ICID-CIID)
New Delhi

Report on Financial Statements

We have audited the accompanying financial statements of **International Commission on Irrigation and Drainage (ICID-CIID) ("the society"- PAN AAAAI1084P),** which comprise the Balance Sheet as at 31st March 2019, Income & Expenditure, Receipt and Payment for the year then ended and other explanatory information.

Management Responsibility for the Financial Statements

Management is responsible for the preparation of these financial statements that give a true and fair view of the financial position, financial performance and receipt and payments, of the society in accordance with accounting principles generally accepted in India for Not-for-Profit Organizations.

This responsibility includes the design, implementation and maintenance of internal control relevant to the preparation and presentation of the financial statements that give a true and fair view and are free from material misstatement, whether due to fraud or error.

Auditor's Responsibility

Our responsibility is to express an opinion on these financial statements based on our audit. We conducted our audit in accordance with the Standards on Auditing issued by the Institute of Chartered Accountants of India. Those Standards require that we comply with ethical requirements and plan and perform the audit to obtain reasonable assurance about whether the financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on the auditor's judgement including the assessment of the risks of material misstatement of the financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the Society's preparation and fair presentation of the financial statements in order to design audit procedures that are appropriate in the circumstances. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of the accounting estimates made by the management, as well as evaluating the overall presentation of the financial statements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

Opinion

Further we report that, in our opinion and to the best of our information and according to the explanations given to us, the financial statements give the information required by the Act in the manner so required and give a true and fair view in conformity with the accounting principles generally accepted in India.

(a) In the case of Balance Sheet, of the state of affairs of the Society as at March 31, 2019; and

(b) In the case of Income and Expenditure Account, of the excess of Expenditure over income for the year ended on that date; and

(c) And in case of the Receipts and Payments Account, of the Receipts and Payments for the year ended on that date.

(d) In the case of Income and Expenditure Account, of the excess of Expenditure over income for the year ended on that date; and

Further we report that

(a) We have sought and obtained all the information and explanations which to the best of our knowledge and belief were necessary for the purpose of our audit.

(b) In our opinion proper books of accounts as required by law have been kept by the ICID, so far as appears from our examination of those books.

(c) The Balance Sheet, Income and Expenditure Account, and Receipt and Payment account dealt with by this report are in agreement with the books of account.

(d) In our opinion, the Balance Sheet, Income and Expenditure account, comply with the relevant Accounting Standards.

Place: New Delhi
Date: 17th May 2019

For **P.K. Chopra & Co.**
Chartered Accountants
Firm Registration No. 006747N

Sd/-
Arvind Mongia
Partner
Membership No. 085176

INTERNATIONAL COMMISSION ON IRRIGATION AND DRAINAGE
BALANCE SHEET AS ON 31ST MARCH 2019

PARTICULARS		2018-19 Amount INR	2017-18 Amount INR
Assets			
Property & Equipment	1	9,829,590	11,016,757
Receivables	2	24,699,765	13,856,911
Bank Balances & Cash in Hand	3	84,149,599	75,930,397
Subscription Accrued		—	3,422,773
	Total Assets	**118,678,954**	**104,226,838**
Liabilities			
Gulhati Memorial Lecture Fund	4	358,255	256,327
General Fund	5	57,043,515	47,781,706
Gratuity Fund	6	9,060,800	7,874,160
Leave Encashment Fund	7	7,103,806	6,258,806
Corpus Fund-WID Prizes	8	2,835,550	2,607,098
Exchange Fluctuation Reserve Fund		724,446	—
Security from Tenant	9	24,632,200	24,632,200
Unrealized Subscription	10	12,181,160	2,373,520
Sundry Creditor, Payables & Provisions	11	4,069,442	10,929,975
Duties & Taxes Payable	12	669,779	1,513,046
Total Liabilities		**118,678,954**	**104,226,838**

Significant Accounting Policies and Notes to Accounts forming part of Accounts-Annexure 45

As per our separate Report of even date attached

For **P.K. Chopra & Co.**
Chartered Accountants
Firm Registration No. 006747N

Sd/-
Arvind Mongia
Partner
Membership No. 085176

For and on behalf of
International Commission on Irrigation and Drainage

Sd/
Balasaheb Anantrao Chivate
Director (Technical)

Sd/-
Ashwin Kumar Balwantray Pandya
Secretary General

Place: New Delhi
Dated: 17th May 2019

INTERNATIONAL COMMISSION ON IRRIGATION AND DRAINAGE
INCOME AND EXPENDITURE ACCOUNT
FOR THE YEAR FROM 1ST APRIL 2018 TO 31ST MARCH 2019

PARTICULARS		2018-19 Amount INR	2017-18 Amount INR
Income			
Membership & Subscriptions	**13**	19,490,246	16,673,089
Sale of Publication	**14**	13,418	1,063,971
Special Contribution to the Budget	**15**	6,178,416	62,700
Interest on Fixed Deposits	**16**	4,870,889	4,607,794
Other Incomes	**17**	1,041,088	23,918
Rent and Provision of Services on Let Out Property		49,263,828	49,263,828
Special Subscriptions		343,700	—
Total		**81,201,585**	**71,695,300**
Expenditure			
Opening Stock of Publications		—	251,130
Compensation for Secretary General	**18**	4,035,597	3,938,238
Salaries & Allowances	**19**	22,773,901	28,538,103
Superannuation Relief to Retd. Employees		4,416,948	3,397,226
Service & Maintenance	**20**	8,423,441	5,052,653
Taxes and Utilities	**21**	16,870,566	16,978,262
Rehabilitation or Refurbishing and Maintenance of ICID Center Office Building	**22**	283,072	3,529,600
Publication, Knowledge Management and Dissemination	**23**	3,513,626	4,156,766
Conference Expenditure	**24**	1,809,468	2,527,464
Cooperation with Other Organization		—	23,305
Travel Expenditure	**25**	1,653,563	1,303,723
Depreciation on Fixed Assets	**1**	1,378,293	1,486,452
Workshop, Training and Studies	**26**	4,908,560	956,568
Other Expenditure	**27**	193,485	5,705,712
Excess of Income over Expenditure		**10,941,066**	**(6,149,902)**
Total		**81,201,585**	**71,695,300**

Significant Accounting Policies and Notes to Accounts forming part of Accounts-Annexure 45

As per our separate Report of even date attached

For and on behalf of
International Commission on Irrigation and Drainage

For **P.K. Chopra & Co.**
Chartered Accountants
Firm Registration No. 006747N

Sd/-
Arvind Mongia
Partner
Membership No. 085176

Sd/
Balasaheb Anantrao Chivate
Director (Technical)

-Sd/-
Ashwin Kumar Balwantray Pandya
Secretary General

Place: New Delhi
Dated: 17th May 2019

INTERNATIONAL COMMISSION ON IRRIGATION AND DRAINAGE
RECEIPT AND PAYMENT ACCOUNT
FOR THE YEAR FROM 1ST APRIL 2018 TO 31ST MARCH 2019

PARTICULARS		2018-19 (Rs.)	2017-18 (Rs.)
RECEIPTS			
Cash & Banks (Balance Brought Forward)	**28**	75,930,397	75,760,429
Membership Subscriptions	**29**	17,709,864	16,742,447
Sale of Publications	**30**	13,418	1,089,818
Special Contribution to the Budget	**31**	6,680,016	62,700
Interest on Fixed Deposits	**32**	5,112,321	4,797,114
Special Subscription		343,700	—
Other Receipts	**33**	1,429,669	1,459,371
Rent and Provision of Services on Let Out Property	-	48,401,695	47,789,130
Income Tax Refund	**34**	1,150,720	—
Total		**156,771,800**	**147,701,010**
PAYMENTS			
Compensation package for Secretary General	-	4,035,597	3,938,238
Salaries and Allowances	**35**	22,410,162	27,224,770
Superannuation Relief to Retired Employees	-	4,416,948	3,397,226
Services & Maintenances	**36**	8,452,786	5,103,228
Taxes and Utilities	**37**	16,793,137	16,983,611
Rehabilitation or Refurbishing and Maintenance of ICID CO Building	**38**	283,072	3,529,600
Publications, Knowledge Management and Disseminations	**39**	3,506,298	4,158,824
Conference Expenditure	**40**	1,809,468	2,243,164
Cooperation with Other Organisation		—	23,305
Travel Expenditure	**41**	1,653,563	1,303,723
Workshops, Trainings and Studies	**42**	5,122,457	1,016,574
Purchase of Fixed Assets	**43**	191,127	1,276,721
Other Payments	**44**	3,947,587	1,571,629
Cash & Banks (Balance Carry Forward)	**28**	84,149,599	75,930,397
Total		**156,771,800**	**147,701,010**

Significant Accounting Policies and Notes to Accounts forming part of Accounts-Annexure 45

As per our separate Report of even date attached

For and on behalf of
International Commission on Irrigation and Drainage

For **P.K. Chopra & Co.**
Chartered Accountants
Firm Registration No. 006747N

Sd/-
Arvind Mongia
Partner
Membership No. 085176

Sd/
Balasaheb Anantrao Chivate
Director (Technical)

-Sd/-
Ashwin Kumar Balwantray Pandya
Secretary General

Place: New Delhi
Dated: 17th May 2019

PROPOSED REVISED BUDGET 2019-2020 AND PROPOSED BUDGETS 2020-2021, PRELIMINARY BUDGET 2021-2022 AND FORECAST BUDGET 2022-2023

		Proposed Revised Budget 2019-2020	Proposed Budget 2020-2021	Proposed Preliminary Budget 2021-2022	Proposed Forecast Budget 2022-2023
		₹	₹	₹	₹
I	**RECEIPTS**				
	1. Membership Subscriptions	22,929,000	16,418,000	16,418,000	16,418,000
	2. Sale of Publications	1,055,000	1,055,000	1,055,000	1,055,000
	3. Special Contribution to ICID Budget	9,782,500	16,645,000	2,000,000	8,000,000
	4. Interest on Fixed Deposits	6,044,000	6,044,000	6,044,000	6,929,000
	5. Other Receipts	6,706,000	889,000	889,000	5,508,000
	6. Rent and Maintenance Charges	56,461,000	58,137,000	58,137,000	66,625,000
	7. Loan for Extension of Building	-	100,000,000	40,000,000	-
	Total Receipts	**102,977,500**	**199,188,000**	**124,543,000**	**104,535,000**
II	**EXPENDITURE**				
	1. Compensation Package for Secretary General	4,198,000	4,378,000	4,578,000	4,857,000
	2. Salaries and Allowances	23,577,000	24,401,800	26,617,600	26,184,000
	3. Superannuation Relief to Retired Employees	3,823,000	3,895,000	4,230,000	4,606,000
	4. Service & Maintenance	7,927,000	7,375,000	7,657,000	7,952,000
	5. Taxes & Utilities	18,534,000	18,732,000	18,782,000	19,581,000
	6. Rehabilitation, Refurbishing and Maintenance of ICID CO Building	830,000	830,000	1,330,000	1,330,000
	7. Publication, Knowledge Management and Dissemination	4,742,000	4,468,000	4,510,000	4,859,000
	8. Conference Expenditure	2,700,000	3,700,000	2,100,000	2,600,000
	9. Cooperation with Other Organisations	110,000	50,000	50,000	110,000
	10. Travel Expenditure	2,400,000	2,400,000	2,400,000	2,400,000
	11. Fixed Assets	2,900,000	101,900,000	44,200,000	1,200,000
	12. Workshops, Training and Studies	5,700,000	6,300,000	3,800,000	3,800,000
	13. Independent Service Unit (ISU)	300,000	300,000	300,000	300,000
	14. Other Expenditure	1,385,000	1,310,000	1,060,000	1,060,000
	Total Expenditure	**79,126,000**	**180,039,800**	**121,614,600**	**80,839,000**
	Surplus/(Deficit)	**23,851,500**	**19,148,200**	**2,928,400**	**23,696,000**

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List of participants at the
70TH INTERNATIONAL EXECUTIVE COUNCIL (IEC) MEETING
7 September 2019, Bali, Indonesia

(A) OFFICE BEARERS

President

1. Eng. Felix B. Reinders (South Africa)

Vice Presidents

2. Dr. (Mrs.) Irena G. Bondarik (Russia)
3. Mr. Waseem Nazir (Pakistan)
4. Er. Naoki Hayashida (Japan)
5. Dr. Brian T. Wahlin (USA)
6. Dr. Yella K. Reddy (India)
7. Dr. Marco Arcieri (Italy)
8. Dr. Kamran Emami (Iran)
9. Mr. Ahmed EL BOUARI (Morocco)

Secretary General

10. Er. Ashwin B. Pandya, ICID (India)

(B) CHAIRPERSONS OF PERMANENT COMMITTEES

1. Vice President Hon. Laurie C. Tollefson (Canada), PFC
2. Vice President Hon. Ding Kunlun (China), PCTA
3. Vice President Brian T. Wahlin (USA), PCSO

(C) PAST PRESIDENTS

1. Prof. Dr. Chandra Madramootoo (Canada)
2. Dr. Gao Zhanyi (China)
3. Dr. Saeed Nairizi (Iran)
4. Dato' Ir. Hj. Keizrul bin Abdullah (Malaysia)
5. Prof. dr. Ir. Bart Schultz (The Netherlands)
6. Mr. Peter S. Lee (United Kingdom)

(D) PAST VICE PRESIDENTS

1. Mr. Laurie C. Tollefson (Canada)
2. Dr. Mohamed Abd-El-Moneim Wahba (Egypt)
3. Dr. Laszlo G. Hayde (Hungary)
4. Dr. A. Hafied A. Gany (Indonesia)
5. Dr. Shinsuke Ota (Japan)
6. Prof. Dr. Charlotte de Fraiture (The Netherlands)
7. Mr. Chaiwat Prechawit (Thailand)
8. Dr. Ragab Ragab (United Kingdom)
9. Mr. Ian William Makin (United Kingdom)
10. Dr. Ir. Basuki Hadimoeljono (Indonesia)

(E) NATIONAL COMMITTEES / COMMITTEE

1.	Mr. Naseer Ahmad Fayez	Afghanistan
2.	Mr. Bryan Ward; Ms. Christine Delphin	Australia
3.	Mr. OUANGO D. François	Burkina Faso
4.	VPH Laurie C. Tollefson	Canada
5.	Mr. Gao Lihui; Ms Li Ruoxi	China
6.	Prof. Dr. Zeinab Hussien Behairy; Prof. Dr. Hesham Mostafa Mohamed Ali	Egypt
7.	Dr. Dominique ROLLIN	France
8.	VPH Dr. Laszlo G. Hayde	Hungary
9.	Mr. Vinod Kumar Tiwari	India
10.	Ir. Adang Saf Ahmad, CES; Ir. M.Z. Fatah; Mr. Sigit Marwanto; Dr. Mochammad Amron	Indonesia
11.	Mr. Mehrzad Ehsani; Mr. Ali Reza Salamat	Iran
12.	Mr. Hussein Abdulameer Baga; Eng. Nissreen Sami Tarkhan; Mr. Rafat Nael Abdulghani Al-Intaki	Iraq
13.	VP Dr. Marco Arcieri	Italy
14.	Mr. Sato Yohei; Mr. Kenji MIYAGAWA; Prof. Dr. Tsugihiro WATANABE	Japan
15.	Ms A Bin LEE; Ms Sang Hee PARK	Korea
16.	Ir. Hj. Nor Hisham bin Mohd Ghazali; Ir. Hj AHMAD BIN DARUS	Malaysia
17.	Dr. Bartali El Houssine	Morocco
18.	Mr. Bashu Dev Lohanee	Nepal
19.	Prof. dr. Bart Schultz; Prof.dr. Charlotte de Fraiture	The Netherlands
20.	Ms Florence J.; Engr. Dr. Elijah A. ADERIBIGBE. Engr. Muhammad Sani Bala	Nigeria
21.	VP Waseem Nazir	Pakistan
22.	ATTY. AILYNE C. AGTUCA-SELDA	Philippines
23.	VP Dr. (Mrs.) Irena G. Bondarik	Russia
24.	Dr. Sylvester Mpandeli; Mrs. Mary Jean M. Gabriel	South Africa
25.	Eng Janaki Meegastenna	Sri Lanka
26.	Mr. Arthon Suttigarn	Thailand
27.	Mr. Ali GOKYEL; Mr. Muhammed Imran Kulat	Turkey
28.	VPH Dr. Ragab Ragab	United Kingdom
29.	VPH Larry D. Stephens	USA
30.	Dr. Shukhrat Mukhamedjanov; Dr. Shavkat Rakhimovich Khamraev	Uzbekistan
31.	Dr. Ruey-Chy Kao; Mr. Kuang-Ming Chuang; Prof. Ray- Shyan Wu	Chinese Taipei

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IMPORTANT DECISIONS TAKEN BY THE MANAGEMENT BOARD ON BEHALF OF IEC BETWEEN 69TH IEC MEETING (SASKATOON, AUGUST 2018) AND 70TH IEC MEETING (BALI, SEPTEMBER 2019) (And the actions taken thereon)

Decision by the MB Meetings	Decision of 70th IEC
I. Virtual Management Board Meeting No.4/18, 01 November 2018 (via Web Conferencing)	
(a) MB approved the composition and terms of reference for the setting up of the Task Team to look into Financial Aspects of Special Contribution to ICID Budget from ICID Events (TT-FASCIB).	Endorsed.
(b) MB approved the broad composition and mandates for the constitution of the Task Team on Transboundary Water Management and Effect on Agriculture Water Management (TT-TWM-AWM)	Endorsed.
(c) MB approved the revised IYPeF Scheme.	Endorsed.
II. Management Board Meeting No.1/19, 12 April 2019, Rabat, Morocco	
(a) MB approved the mandate for Working Group on Adaptive Flood Management (WG-AFM) for the establishment of the WG, as it has fulfilled the requirement of participation of at least 10 NCs for establishing a new WG.	Endorsed.
(b) MB approved the constitution of an International Technical Advisory Committee (ITAC) for 24th ICID Congress, together with its composition and terms of reference.	Endorsed.
(c) MB concurred with the work undertaken towards the potential launch of ISU during 70th IEC meeting in Bali, Indonesia in September 2019.	Endorsed.
(d) MB decided that ICID may undertake WSH program as a separate one under ICID banner, independent of currently on-going WHIS Program, rather than as a member initiative with WWC without any substantial support from WWC side.	Endorsed.
(e) MB approved the joint activities, with involvement in Drought and Climate Change, which may be adequately reflected in the revised MoU between ICID and WMO.	Endorsed.
(f) MB approved ANAFIDE's request to change the venue of the 5th African Regional Conference from Rabat to Marrakech.	Endorsed.

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REVIEW OF WORKBODY ACTIVITIES UNDER STRATEGY THEME "BASIN"

VP Er. Naoki Hayashida and VP Dr. Kamran Emami
Co-Theme Leaders, Strategy Theme - Basin

General

The technical activities of ICID are organized under four strategy themes: On Farm, Schemes, Basin, and Knowledge. The strategy theme Basin deals with all the basin-level environment aspects that impact agriculture water management such as climate, floods, droughts, seawater, etc. This review examines the strategy theme Basin and consists of Mandate; Activities and Achievements made by 2019 Bali meeting; Appraisal; Recommendations for the theme.

Review of Strategy Theme Basin

The strategy theme Basin includes the work of the following six working groups and one task team:

1. Working Group on Adaptive Flood Management (WG-AFM)
2. Working Group on Climate Change and Agricultural Water Management (WG-CLIMATE)
3. Working Group on Environment (WG-ENV)
4. Working Group on Irrigation and Drainage in States Under Socio-Economic Transformation (WG-IDSST)
5. Working Group on Managing Water Scarcity under Conflicting Demands (WG-MWSCD)
6. Working Group on Sustainable Development of Tidal Areas (WG-SDTA)
7. Task Team on Transboundary Water Management and Effect on Agriculture Water Management (TT-TWM-AWM)

1. Working Group on Adaptive Flood Management (WG-AFM)

The establishment of WG-AFM was approved in 2018. WG-AFM has the mandate to provide guidance to compile, publish, update and/or translate documents on adaptive flood management, to promote inter-disciplinary exchange of information, knowledge and experience, as well as networking on the topic for proper understanding of the technological developments on the subject, and to organize seminars and prepare a paper and a book.

Activities and Achievements made by 2019 Bali meeting

(a) The WG decided to submit the closure report of the erstwhile WG-CAFM to the ICID central office during Bali meeting.
(b) The WG finalized the schedule for editing and finalizing the publication titled "Adaptive Flood Risk Management" which will cover both structural and non-structural aspects of flood management.
(c) The WG organized an International Workshop on "Adaptive Flood Management: Recent Great Floods and Lessons Learned" on 12 August 2018 at Saskatoon, Canada.

Appraisal

Same as last year, observers from USA, Thailand, Malaysia, Nigeria and Germany provided the information of each country's AFM and active discussions were made. From next year, members are requested to provide their updated information regarding AFM and have active discussions with participants.

Recommendations

The WG Action Plan of Road Map to ICID Vision 2030 based on the new mandate should be considered continuously and appropriate flood warning and emergency action plan should be discussed to reduce human casualties by floods.

2. Working Group on Climate Change and Agricultural Water Management (WG-CLIMATE)

WG-CLIMATE has the mandate to review the progression of and predictions for Global Climate Change and climate variability and to explore and analyze the medium-term implications of climate change and climate variability for irrigation, drainage, and flood management.

Activities and Achievements made by 2019 Bali meeting

(a) As the outcomes of the activities under the Action Plan, the WG decided that it will publish one book or pamphlet, which might include integrated and innovated assessment of climate change on agricultural water management and the adaptation strategy.
(b) The WG had set up the editorial team for publication of the activities under the Action Plan.
(c) The WG organized the workshop in WIF3 in Bali, September 2019.

Appraisal

(a) The participation of the younger professionals is not sufficient, while the persons who have participated in the meetings and activities of the WG are quite active and contributed to the WG.
(b) Cooperation with other international organizations is quite poor and is needed to be developed systematically.

Recommendations

(a) The collaboration activities with other WGs under Basin and other themes should be developed and implemented.
(b) The WG should try to develop some protocols to communicate with international and national societies or organizations related to the global climate change issues.

3. Working Group on Environment (WG-ENV)

WG-ENV has the mandate to provide guidance on the environmental aspects of irrigation and drainage to policy makers, planners, designers, and managers including its effects on climate and human health and to work toward the management of a sustainable environment, maximizing positive and minimizing adverse effects of irrigation and drainage systems.

Activities and Achievements made by 2019 Bali meeting

(a) The WG document titled “Assessing the environmental impacts and the sustainability of irrigation and drainage systems: the potential contribution of Life Cycle Analysis” by Dr. Sylvain Perret is now available on the website.
(b) The WG started to collect case studies concerning the “Positive Ecosystem Services from Irrigation and Drainage Systems” which may be developed into an ICID technical paper and/or uploaded on the WG website.

Appraisal

(a) Although new nominations were received from national committees, active memberships were limited.
(b) The chair of the WG participated in PAWEES-INWEPF International Conference Nara in November 2018 in Japan. It is important to maintain a good relationship between the WG and PAWEES/INWEPF in the analysis of multi-functionalities of paddy fields.
(c) Based on the road map to achieve its mandate, WG assigned the task of collecting documents to each member to be presented at the Workshop in next meeting in Australia. The outcomes of the Workshop will be synthesized into ICID technical paper or guidelines.

Recommendations

As regards the study of the “Positive Ecosystem Services from Irrigation and Drainage Systems”, contribution by members of the WG and collection of previous studies on multi-functionalities/ecosystem services should be carried out to clarify how to enhance ecosystem services of irrigation/drainage system and to identify possible measures to persuade policy makers and general public to support the manifestation of ecosystem services.

4. Working Group on Irrigation and Drainage in States Under Socio-Economic Transformation (WG-IDSST)

WG-IDSST aims to promote innovative approaches and necessary instruments to provide sustainable irrigation and drainage management within Integrated Water Resource Management plans and rural development projects in the countries of transition.

Activities and Achievements made by 2019 Bali meeting

(a) UzNCID organized a conference in March 2019 at the Tashkent State Institute of Irrigation, Uzbekistan to highlight the importance of freshwater and advocate sustainable management of freshwater resources.

(b) Uzbekistan, Norway and Japan together with the United Nations (on Human Security) organized an event at the United Nations Headquarters in New York in November 2018.

Appraisal

The WG has active discussions to share the information on irrigation and drainage in the states under socio-economic transformation. However, the main players are from the countries in certain regions.

Recommendations

(a) Active participation and reports from members of other countries are desirable.

(b) The WG is considering the implementation of activities as below. The WG is recommended to undertake them promptly.

- To promote implementation of IWRM and broad-basing of stakeholders by popularizing the case studies.
- To monitor the ecological situation in the transition states.
- To collect and disseminate appropriate advanced irrigation and drainage technology for use in transition states.

5. Working Group on Managing Water Scarcity under Conflicting Demands (WG-MWSCD)

WG-MWSCD has the mandate to collect information, knowledge and, where available, case histories on actions taken to manage water systems to accommodate a change in priority of water use or due to conflicting demands.

Activities and Achievements made by 2019 Bali meeting

In the WG meeting during the 70th IEC in September 2019 in Bali, a total of six papers from five different countries were presented. There is a plan to hold a workshop in Sydney, next year.

Appraisal

(a) The WG was established in 2016, as a replacement of WG-Drought, while the WG is not dealing with droughts but rather resolving conflicts due to permanent water scarcity.

(b) It was decided in 2017 that the output of the WG will not be a technical report but a joint-authored thesis of the members.

Recommendations

(a) Active presentations and discussions are desired in the workshop in Sydney.

(b) Further active actions from countries such as India, China and Pakistan, are desirable, where the problems of conflicting demands of water are severe.

6. Working Group on Sustainable Development of Tidal Areas (WG-SDTA)

WG-SDTA has the mandate to raise awareness of the increasing risk to tidal areas due to global climate change, to stimulate discussion on impacts and mitigation measures, to find a balance between the preservation and development of tidal areas, to enhance surveys, to improve design techniques, to collect information about the tidal area environment around the world, to join the international dialogues and to organize international conferences.

Activities and Achievements made by 2019 Bali meeting

(a) The Chair shared experiences from Chinese Taipei during the WG meeting and further presented the contents of the forward-looking infrastructure development program on ‘Water environments in Taiwan’ in 2018.

(b) The Special Issue of the ICID Journal titled "Sustainable Development of Tidal Areas: Climate Change and Environmental Impacts" was published in July 2018.

Appraisal

(a) Members of some countries, especially younger professionals, are often limited by financial burdens and do not have the opportunity to participate in discussions at international conferences. By that reason, the WG held a web meeting in January 2019.

(b) The WG has not cooperated with other international organizations and the knowledge sharing and experience exchange with ICID member countries are not sufficient.

Recommendations

(a) The stakeholders should strengthen the communication regarding knowledge and concepts which include both development and conservation through experiences and techniques upon consultation with other countries.

(b) The promotion of the complete management of irrigation, drainage, flood and underground water by combining the newest technologies of ICT (Information and Communication Technology), IOT (Internet of Things), and CPS (Cyber-Physical System) is desired.

7. Task Team on Transboundary Water Management and Effect on Agriculture Water Management (TT-TWM-AWM)

The establishment of the Task Team on Transboundary Water Management and Effect on Agriculture Water Management (TT-TWM-AWM) was approved in 2018. However, its meeting was not held in Bali.

General observations

(a) Generally, WGs under the strategy theme Basin are functioning quite well and productively. The activities of some WGs have been well managed and advanced according to the decisions of each WG.

(b) Overall, the attendance of members is good, but in some cases, this is limited. Poor attendance at the meetings and lack of contribution by the members will lead to reduced productivity and output.

(c) Since most of the subjects covered under the theme Basin are largely correlated to other activities of ICID and other organizations, there is a need for collaboration with relevant specialized international organizations working in these fields.

General recommendations

(a) WGs should promote the exchange of knowledge that takes place within the WG workshops with other agriculture water management professionals by publishing the summary and outcomes in ICID NEWS.

(b) WGs should clearly identify their output in a work plan which may include technical reports, position papers, special issues of Journal of Irrigation and Drainage, seminars (internal/international), etc. in accordance with the Action Plan on the Road Map to ICID Vision 2030.

(c) WGs' productivity and necessity should be evaluated carefully and when mandates and objectives are completed a final report should be written and then move on. A final workshop is also recommended even through video conference.

(d) More information and products should be sent to the central office so that they would be posted on the websites and timely updated.

(e) More WebEx meetings should be considered at least once a year.

(f) Efforts to attract young professionals should be continued and increased.

(g) All WG chairs and theme leaders should be more conscious about the purpose and the set procedures initially.

(h) WGs under the Strategy Theme-Basin are relatively young (Years of Establishment: WG-AFM (2018), WG-CLIMATE (2015), WG-ENV (2015), WG-IDSST (2018), WG-MWSCD (2016) and WG-SDTA (2017)). Therefore, WGs should continue their activities in line with their mandates, for the time being. However, some WGs should actively collaborate with other WGs which cover relevant themes.

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MEMBERSHIP OF VARIOUS WORKBODIES (As Updated During 70TH IEC)

I. PERMANENT FINANCE COMMITTEE (PFC)

No.	Members	Country	Remarks
1.	VPH Laurie Tollefson	Canada	Chairman
2.	VP Mr. Naoki Hayashida	Japan	
3.	VP Dr. Irene Bondarik	Russia	
4.	Vice President Engr. Husnain Ahmad	Pakistan	
5.	Mr. Ali Reza Salamat	Iran	
6.	Dr. Marco Arcieri	Italy	
7.	Prof. Mohamed Benmoussa	Morocco	
8.	Mr. Abdul Malik Sadat Idris	Indonesia	
9.	Er. Ashwin B Pandya, SG, ICID		

II. PERMANENT COMMITTEE ON STRATEGY AND ORGANIZATION (PCSO)

No.	Members	Country	Remarks
1.	Vice President Dr. Brian T. Wahlin	USA	Chair (2018), Member
2.	Mr. Amali Abraham Amali, Coordinator, IYPeF	Nigeria	Vice Chair
3.	Vice President Hon. Dr. Irene G. Bondarik	Russia	Member
4.	Vice President Hon. Mr. Waseem Nazir	Pakistan	Member
5.	Vice President Hon. Mr. Madhav Belabse	Nepal	Member
6.	Vice President Er. Naoki Hayashida	Japan	Member
7.	Vice President Dr. K. Yella Reddy	India	Member
8.	Vice President Dr. Marco Arcieri	Italy	Member
9.	Vice President Dr. Kamran Emami	Iran	Membe
10.	Vice President Mr. Ahmed EL BOUARI	Morocco	Member
11.	Vice President Dr, Mochammad Amron	Indonesia	Member
12.	Vice President Dr. Hesham Mostafa Mohamed Ali	Egypt	Member
13.	Vice President H.E. Dr. Shavkat Rakhimovich Khamraev	Uzbekistan	Member
14.	Secretary General, ICID	ICID CO	Member-Secretary
15.	FAO representative		Permanent Observer
16.	World Bank representative		Permanent Observer
17.	GWP representative		Permanent Observer
18.	WWC representative		Permanent Observer
19.	Chairpersons of all Regional Working Groups and Working Groups/Committees under PCSO.		Ex-Officio Members

II.A. Membership Status of Working Groups under PCSO

II.1 — AFRWG

No.	Members	Country	Remarks
1.	VPH Dr. M.S. Wahba	Egypt	Chairman
2.	Prof. Dr. Sylvester Mpandeli	South Africa	Vice Chairman
3.	Engr. Amali Abraham Amali – Young Professional	Nigeria	Secretary
4.	Mr. Jean Bernard Dambre	Burkina Faso	
5.	Mrs. Salamata Karambiri MIWENDE	Burkina Faso	
6.	Mr. Tchouadang Kadjonga	Chad	
7.	VPH Dr. Samia El-Guindy	Egypt	
8.	Eng. (Ms.) Omnia Hassan Ahmad Salem – Young Professional	Egypt	
9.	Representative	Ethiopia	
10.	Representative	Malawi	
11.	Representative	Mali	
12.	Eng. (Ms.) Sara BOULARBAH -	Morocco	
13.	Eng. (Ms.) (Ms.) El Oumlouki Kaoutar – Young Professional	Morocco	
14.	Representative	Niger	
15.	Engr. Joe Kwanashie	Nigeria	
16.	Mr. Abdullahi Hassan Hussein - Young Professional	Somalia	
17.	Eng. Mohamed Mohamud Abdi	Somalia	
18.	Eng. (Ms.) Hind Massoud Hamed Elneel	Sudan	
19.	Eng. Marwa Faisal Salman Mohamed – Young Professional	Sudan	
20.	Mr. Mulako Cornelius Sitali	Zambia	
Permanent Observer			
21.	Mr. Jean Syroganis Camara	Italy	
22.	Mr. A. de Vito	Italy	
23.	Eng. Omer Yousef	Sudan	
24.	FAO Representative		
25.	World Bank Representative		
26.	ARID Representative		
27.	SARIA Representative		
28.	AgWA Representative		

II.2 — ASRWG

No.	Members	Country	Remarks
1.	Dr. Karim Shiati	Iran	Chairman
2.	VP Naoki Hayashida	Japan	Vice Chair
3.	Representative	Afghanistan	
4.	Mr. Stephen Mills	Australia	
5.	Ir. Felipe Dantas	Australia	Provisional Member
6.	Representative	Bangladesh	
7.	Mr. Wang Aiguo	China	
8.	Dr. Ray-Shyan, Wu	Chinese Taipei	
9.	Dr. Gwo-Hsing Yu	Chinese Taipei	

10.	Dr. Wen-Pin Shu	Chinese Taipei	
11.	Dr. Vijay K Labhsetwar	India	
12.	Dr. Rajinder Kumar Gupta (Direct Member)	India	
13.	Dr. Mochammad Amron	Indonesia	
14.	Representative	Iraq	
15.	Dr. Tsugihiro Watanabe	Japan	
16.	Representative	Kazakhstan	
17.	Ms. Jeong Min, Ryu - Young Professional	Korea, Rep. of	
18.	Prof. (Ms.) Kyung Sook Choi	Korea, Republic of	
19.	Ir. Syed Abdul Hamid bin Syed Shuib	Malaysia	
20.	Ir. Hj. Ahmad bin Darus	Malaysia	
21.	Dr. (Ms.) Mu Mu Than	Myanmar	
22.	Mr. Bashu Dev Lohanee	Nepal	
23.	Mr. Ahmed Kamal	Pakistan	
24.	Representative	Philippines	
25.	Eng. W.B. PALUGASWEWA	Sri Lanka	
26.	Mr. Dilshod Kimsanov	Tajikistan	
27.	Mr. Arthon Suttigarn	Thailand	
28.	Dr. Aynur Fayrap	Turkey	
29.	Mr. Ilkhom Juraev	Uzbekistan	
30.	Dr. Dao Trong Tu	Vietnam	

II.3 —C-CONGR			
No.	**Members**	**Country**	**Remarks**
1.	Mr. Bryan Ward	Australia	Chair
2.	Dr. Warren Helgason	Canada	Representative
3.	Mr. Bashu Dev Lohanee	Nepal	Representative
4.	Mr. Anuj Kanwal	India	Representative
5.	Mr. M.Z. Fatah	Indonesia	Representative
6.	PR El Houssine Bartali	Morocco	Representative
7.	VPH Dr. Ding Kulun	China	Representative

II.4 —ERWG			
No.	**Members**	**Country**	**Remarks**
1.	VPH Ian Makin	UK	Chair
2.	VPH Peter Kovalenko	Ukraine	Vice-Chair
3.	Mr. Olli-Matti Verta	Finland	Secretary
4.	Representative	Netherland	
5.	Representative	Spain	
6.	Representative	Switzerland	
7.	Representative	Slovenia	
8.	Mr. Pedro Eduardo da Cunha Serra	Portugal	
9.	Prof. Dr. Ion Nicolaesco	Romania	
10.	Dr. Davor Romic	Croatia	
11.	Dr.John Martine	Ireland	
12.	VPH Laszlo Hayde	Hungary	
13.	Dr. Irina G. Pankova	Russia	Observer YP
14.	Dr. (Mrs.) Sabine Seidelas as Young Professional	Germany	Observer
15.	Dr. Irene Bondark	Russia	
16.	Dr. Klaus-Dieter Vorloop	Germany	Observer
17.	Dr. Sami Bouarfa	France	
18.	Mr. Hannes Puu	Estonia	
19.	Dr. Maroco Arcieri	Italy	
20.	Representative	Georgina	
21.	Mr. Peter Alexey Yurievich, Chair, EWTDRA	Russia	Ex-Officio Member

III. PERMANENT COMMITTEE FOR TECHNICAL ACTIVITIES (PCTA)

No.	**Members**	**Country**	**Remarks**
1.	VPH Dr. Ding Kunlun, Chair	China	Chair (2015)
2.	Ms. Aysen Pervin Güngör (Turkey)	Turkey	Member (2014)
3.	VPH Mr. Chaiwat Prechawit (Thailand)	Thailand	Member (2014)
4.	VPH Dr. Mohamed Wahba	Egypt	Member (2015)
5.	Mr. Ali Reza Salamat	Iran	Member (2015)
6.	Prof. Michele Perniola	Italy	Member (2018)
7.	Dr. Tsugihiro Watanabe	Japan	Member (2018)
8.	VP Dr. Brian T. Wahlin	USA	Member (2018)
9.	VPH Mr. Ian William Makin	UK	Member (2019)
10.	Secretary General, ICID		Member-Secretary
11.	World Bank representative		Permanent Observer
12.	FAO representative		Permanent Observer
13.	IWMI representative		Permanent Observer
14.	ISO representative		Permanent Observer
15.	WWC representative		Permanent Observer
16.	CPWF representative		Permanent Observer
17.	AgWA representative		Permanent Observer
18.	All Strategy Theme Leaders and Chairs of all Workbodies under PCTA		Ex-Officio Members

III.A. Membership Status of Working Groups under PCTA

III.B.3 — WG-AFM			
No.	**Members**	**Country**	**Remarks**
1.	Dr. Kamran Emami	Iran	Chairman
2.	Dr. Ikuo Yoshinaga	Japan	Vice-Chair
3.	Ms. Sahar Norouzi – Young Professional	Iran	Secretary
4.	Engr. Syed Mahmood-ul-Hassan	Pakistan	Member
5.	Eng. Hind Massoud	Sudan	Member
6.	Mr. Ahmad Bin Dakur	Malaysia	Member
7.	Engr. Abdullah Hassan Hussein	Somalia	Member
8.	Mr. Maurice Roos	USA	Member
9.	Mr. Olli-Matti Verta	Finland	Member
10.	Mr. R.K. Agarwal	India	Member
11.	Mr. Marcel Marchand	Netherland	Member
12.	Dr. Arthon Suttigam	Thailand	Member
13.	Dr. Rozalija Cvejic	Slovenia	Member

14.	Dr. Abdelilah Taky	Morocco	Member
15.	Dato's Ir. Mohd Azmi Bin Ismail	Malaysia	Provisional Member

III.B.2 — WG-CLIMATE			
No.	**Members**	**Country**	**Remarks**
1.	Dr. Tsugihiro Watanabe	Japan	Chairman
2.	Dr. Ray Shyan Wu	Chinese Taipei	Vice Chairman
3.	Dr. Fuqiang Tian	China	Secretary
4.	Dr. Jih-Shun, Liu	Chinese Taipei	
5.	Dr. Waleed Hassan M. Abou El Hassan	Egypt	
6.	Eng (Ms.) Nermeen Essam El-Tahan - Young Professional	Egypt	
7.	Mr. Mika Turunen	Finland	
8.	Mr. Sanjay Kumar Singh	India	
9.	Mr. Atin Kumar Tyagi – Direct Member, JISL	India	
10.	Representative	Indonesia	
11.	Dr. Nozar Ghahreman	Iran	
12.	Mr. Jafer Kathom Alwan Alamiryi - Young Professional	Iraq	
13.	Prof. Choi, Jin-Yong	Korea, Rep. of	
14.	Engr. Reynaldo L. Baloloy	Philippines	
15.	Prof. Sue Walker	South Africa	
16.	Eng. (Ms.) Talatha Janaki Meegstenna	Sri Lanka	
17.	Ms. DEMİREL YAZICI Dilek	Turkey	
18.	Dr. Guy Jobbins	UK	
19.	Mr. Michael Davidson	USA	
Permanent Observers			
20.	WMO representative		
21.	IWMI Representative		
22.	FAO Representative		

III.B.3 — WG-ENV			
No.	**Members**	**Country**	**Remarks**
1.	VPH Prof. dr. (Ms.) Charlotte de Fraiture	The Netherlands	Chair
2.	Dr. Michael van der Laan	South Africa	Vice Chair
3.	Dr. Seija Anneli Virtanen	Finland	Secretary
4.	Mr. Carl Walters	Australia	
5.	Mr. Mohammad Samiul Ahsan Talucder (Direct Member)	Bangladesh	
6.	Dr. Fuqiang Tian	China	
7.	Dr. Hao-Che Ho	Chinese Taipei	
8.	Dr. Ming-Kai Hsieh	Chinese Taipei	
9.	Mr. Usamah Hashim Witwit	Iraq	
10.	Prof. N. Hatcho	Japan	
11.	Dr. Choi, Joong-Dae	Korea, Rep. of	
12.	Prof. (Ms.) Eunmi Hong	Korea, Rep. of	
13.	Ir. Mohd Azmi Ismail	Malaysia	
14.	Dr. Muhammad Basharat Chaudhry	Pakistan	
15.	Engr. Reynaldo L. Baloloy	Philippines	
16.	Dr. Yury Anatolyevich Mozhaiskii	Russia	
17.	Eng. (Ms.) P.M. Jayadeera	Sri Lanka	
18.	Dr. Aynur Fayrap	Turkey	
19.	Vokhidjon M. Akhmadjonov	Uzbekistan	Provisional Member

III.B.4 — WG-IDSST			
No.	**Members**	**Country**	**Remarks**
1.	VPH Prof. Peter Kovalenko	Ukraine	Chairman
2.	VPH Prof. Victor A. Dukhovny	Uzbekistan	Deputy Chairman
3.	Dr. Shukhrat Mukhamedjanov	Uzbekistan	Secretary
4.	Mr. Momir Vranes	Australia	
5.	Dr. (Ms.) Ya-Wen Chueh	Chinese Taipei	
6.	VPH Dr. Mohamed Wahba	Egypt	
7.	Dr. Rajinder Kumar Gupta (Direct Member)	India	
8.	Dr. Katsuyuki Shimizu	Japan	
9.	Engr. Peter Yakube Manjuk	Nigeria	
10.	Mr. Rafaquat Ali	Pakistan	
11.	Dr. Alexander Solovyev	Russia	
12.	Eng W.B. Palugaswewa	Sri Lanka	
13.	Dr. Hassan Abu Bashar	Sudan	
14.	Mr. Baratov Rustam Okilovich	Tajikistan	
15.	Dr. Andrii Shatkovskyi	Ukraine	
Permanent Observers			
16.	Prof. Daene C. McKinney (IWRA)		
17.	FAO Representative		
18.	World Bank representative		

III.B.4 — WG-MWSCD			
No.	**Members**	**Country**	**Remarks**
1.	VPH Franklin E. Dimick	USA	Chair
2.	Mr. V.C. Ballard	Australia	Vice-Chair
3.	Dr. Jaepil Cho	South Korea	Secretary
4.	Ir. David Florentino	Philippines	Provisional Member
5.	VPH Ragab Ragab	UK	Member
6.	Ms. Mikiko Sugiura	Japan	Provisional Member

7.	Mr. Veysel Yildiz	Turkey	Provisional Member
8.	Mr. Amali Abraham Amali	Nigeria	Member
9.	Dr. Jan Ming-Young	Chinese Taipei	Member
10.	Dr. Hesham Mostafa Mohammed Ali	Egypt	Provisional Member

III.B.5 — WG-SDTA			
No.	**Members**	**Country**	**Remarks**
1.	Dr. Ruey-Chy Kao	Chinese Taipei	Chair
2.	Ir. Henk P. Ritzema	Netherlands	Vice Chair
3.	Ir. Hj. Nor Hisham Bin Mohd Ghazali	Malaysia	Secretary
4.	Dr. (Ms) Hsiao-Weng Wang	Chinese Taipei	Young Professional
5.	Prof. Budi Santoso Wignyosukarto	Indonesia	Member
6.	Prof. Zhang Zhanyu	China	Member
7.	Dr. Jeongryeol Jang	Korea	Member
8.	Mr. Anuj Kanwal	India	Member
9.	Eng. Elaraby Mohamed Gomaa Elkashawy	Egypt	Provisional Member
10.	Prof. Dr. Hossam Refaat	Egypt	Provisional Member
11.	Dr. Ikuo Yoshinaga	Japan	Member
12.	Dr. Vijay K. Labhsetwar	India	Member
13.	Mr. Paavan Kuamr Reddy, Young Professional	India	Member
14.	Dr. Surat Thanusin	Thailand	Member
15.	Dr. Jo Jin Hoon	Korea	Permanent Observer
16.	Dr. Daeou Eo	Korea	Permanent Observer
17.	Mr. Robiyanto Hendro Susanto	Indonesia	Permanent Observer
18.	Mr. Harry Denecke (FAO)		Permanent Observer

III.K.1 — WG-CDTE			
No.	**Members**	**Country**	**Remarks**
1.	Prof. Dr. Abdelhafid DEBBARH	Morocco	Chair
2.	Mr. Mirza Asif Baig	Pakistan	Provisional Member
3.	Dr. Nader Heydari	Iran	Provisional Member
4.	Eng. Abu Obieda Babiker Ahmed Hassan	Sudan	Provisional Member
5.	Mr. Hasan Basri Yuksel	Turkey	Provisional Member
6.	Ms Dahile Abdulqader Abdulhameed (YP)	Iraq	Provisional Member
7.	Mr. Raad F Amein Taha	Iraq	Provisional Member
8.	VPH Dr. Mohamed Wabha	Egypt	Provisional Member
9.	Dr. Shinji Fukuda	Japan	Provisional Member
10.	Dr. Vijay K. Labhsetwar	India	Provisional Member
11.	Dr. Wen-Pin Shu	Chinese Taipei	Provisional Member
12.	Dato' Ir. Haji Hanapi Bin Mohamad Noor	Malaysia	Provisional Member

III.K.2 — WG-HIST			
No.	**Members**	**Country**	**Remarks**
1.	Dr. Kamran Emami	Iran	Chairman
2.	Mrs. Xuming Tan	China	
3.	Dr. Sinite Yu	Chinese Taipei	
4.	Eng Ahmed Awad Hag Abd-Elnabi	Egypt	
5.	VPH Prof. Dr. Dia El Din Ahmed El Quosy	Egypt	
6.	VPH Dr. Laszlo Hayde	Hungary	
7.	VPH A. Hafied A. Gany	Indonesia	
8.	Mr. Antonio Linoli	Italy	
9.	Prof. N. Hatcho	Japan	
10.	Mr. Ju-Chang Kim	Korea, Rep. of	
11.	Dr. José Luis Martínez Ruiz	Mexico	
12.	Engr. Sirika Ahmad Abubakar	Nigeria	
13.	VPH Dr. Gerhard Backeberg	South Africa	
14.	Dr. Ahmed Adam Ibrahim	Sudan	
15.	VPH Chaiwat Prechawit	Thailand	
16.	Mr. Charles L. Abernethy	United Kingdom	
Permanent Observers			
17.	Dr. Ir. M. Ertsen (IWHA)		
18.	Dr. Ing. Klaus Rottcher	Germany	
19.	Dr. (Mrs.) B. Dolfing	The Netherlands	

III.K.3 — EB-JOUR			
No.	**Members**	**Country**	**Remarks**
1.	PH Bart Schultz	Netherlands	Chair
2.	Prof. Dr. Kristoph-Dietrich Kinzli P.E.	USA	Joint Editor
3.	Dr. Jiusheng Li	China	Joint Editor
4.	VPH Hector Malano	Australia	Editor Emeritus
5.	Prof. Daniele de Wrachien	Italy	Associate Editor
6.	Dr. Nick C. Van de Giesen	Netherlands	Associate Editor
7.	Mr. Bernard Vincent	France	Associate Editor
8.	Dr. Biju George	Australia	Associate Editor
9.	Dr. Henk Ritzema	Netherlands	Associate Editor
10.	Prof. Waldo Ojeda-Bustamante	Mexico	Associate Editor

11.	Prof. Kendall C. DeJonge	USA	Associate Editor
12.	Prof. Saleh Taghvaejan	USA	Associate Editor
13.	Prof. Graziano Ghinassi	Italy	Associate Editor
14.	VPH Laszlo Hayde	Hungary	Associate Editor
15.	Dr. Takanori Nagano	Japan	Associate Editor
16.	Dr. Ray-Shyan Wu	Chinese Taipei	Associate Editor
17.	Dr. Mohsin Hafeez	IWMI	Associate Editor
18.	Dr. Poolad Karimi	Iran	Associate Editor
19.	Prof. Jin-Yong Choi	Korea	Associate Editor
20.	Dr. Severine Tomas	France	Associate Editor
21.	Dr. Luis Garcia	USA	Member
22.	VPH Prof. Dr. Dia El Din Ahmed El Quosy	Egypt	Member
23.	Dr. Muhammad Latif	Pakistan	Member
24.	Dr. Marcel Kuper	France	Member
25.	VPH Larry Stephens	USA	Member
26.	Dr. Vijay Labhsetwar (ICID Central Office)	India	Member
27.	Dr. Bryan P. Thoreson	USA	Member
28.	Prof. Yih Chi Tan	Chinese Taipei	Member
29.	Dr. Yohei Sato	Japan	
30.	Prof. Ir. Dr. Mohd Amin bin Mohd Soom	Malaysia	
31.	Dr. Mohammad Javad Monem	Iran	
32.	Prof. Dr.-Ing. Klaus Rottcher	Germany	
33.	Prof. dr. Joong Dae, Choi	Korea	
34.	Mr. Brent Paterson	Canada	
35.	Ir. Simon Howarth	UK	
36.	Er. B.A. Chivate, Director (Tech.)	ICID CO	

III.K.4 — TF-MTD			
No.	**Members**	**Country**	**Remarks**
1.	VPH Dr. Ding Kunlun	China	Chair
2.	Dr Yu-Chuang Chang (WG-IOA)	Chinese Taipei	
3.	Dr. AK Randev, Chair of WG-SON-FARM	India	
4.	Mr. Bernard Vincent, Chair of WG-SDRG	France	
5.	Ms. Mary Jean M. Gabriel, Chair of WG-IDM	South Africa	
6.	VPH Ian Makin, Chair of WG-M&R	Sri Lanka	
7.	Representative of FAO		
8.	Representative of IWMI		
9.	Representative of ADB		

III.K.5 — TF-WWF9			
No.	**Members**	**Country**	**Remarks**
1.	PH Dr. Saeed Nairizi	Iran	Chair
2.	Mr. Alireza Salamat	Iran	Vice Chair
3.	Mr. Dominique Rollin	France	Secretary
4.	PH Dr. Chandra Madramootoo	Canada	
5.	VPH Laurie C. Tollefson	Canada	
6.	VPH Dr. Ding Kunlun	China	
7.	Dr. (Ms) Eman Ragab Nofal – Young Professional	Egypt	
8.	Mr. Anuj Kanwal	India	
9.	Dr. Hossein Dehghanisanij	Iran	Provisional Member
10.	VPH Dr. Shinsuke Ota	Japan	
11.	Mr. Mitsuo Ishijima	Japan	
12.	Dr. Tsugihiro Watanabe	Japan	
13.	Mr Shamsiddin Qurbonov	Uzbekistan	Provisional Member

III.K.5 — WG-VE			
No.	**Members**	**Country**	**Remarks**
1.	Dr. Kamran Emami	Iran	Chair
2.	Mrs. Remziye Yildiz Gulagaci	Turkey	Vice-Chair
3.	Ir. Nor Hisham M. Ghazali	Malaysia	Secretary
4.	VPH Francois Brelle	France	Member
5.	Mr. Suman Sijapati	Nepal	Member
6.	Dr. Toshihiko Kuno	Japan	Member
7.	Dr. Yawen, Chueh	Chinese Taipei	Provisional member
8.	Mr. Delbert M. Smith	USA	Provisional Member

III.O.1 — 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.	Mr. Yao Bin	China	
5.	Dr. Zhang Guohua - Young Professional	China	
6.	Dr. Yu-Min Wang	Chinese Taipei	
7.	Dr. Chen, Ching-Tien	Chinese Taipei	
8.	Dr. Ibrahim Mohamed Mahmoud	Egypt	
9.	Mr. S.P. Jadhav – Direct Member, JISL	India	
10.	Prof. LB Roy – Direct Member	India	

11.	Mr. Hassan Shantia	Iran	
12.	Dr. Hossein Dehghanisanij	Iran	
13.	Dr. Graziano Ghinassi	Italy	
14.	Mr. Taku Mori	Japan	
15.	Prof. Chang Eon Park	Korea, Rep. of	
16.	Dr. Teoh Chin Chuang	Malaysia	
17.	Mr. Bashu Dev Lohanee	Nepal	
18.	Mr. Siboniso Phillip Mkhaliphi	South Africa	
19.	Eng. S. Mohanarajah	Sri Lanka	
20.	Mr. Ömer Faruk Akbulut	Turkey	
Permanent Observers			
21.	Mr. Sher Singh	India	
22.	Mr. M.S. Sudhakar (Direct Member), JISL	India	
23.	Mr. Abijit Joshi (Direct Member), JISL	India	
24.	Dr. Jano Anter	Germany	
25.	Mr. Bruno Molle (ISO)	France	
26.	FAO Representative		

III.O.3 — WG-WATER & CROP			
No.	**Members**	**Country**	**Remarks**
1.	VPH Ragab Ragab	UK	Chair
2.	VPH Laurie C. Tollefson	Canada	Vice-Chair
3.	Dr. K. Yella Reddy	India	Secretary
4.	Ir. Adang Saf Ahmad	Indonesia	Provisional Member
5.	Dr. P. Soman (Direct Member), JISL	India	Provisional Member
6.	Prof. Won-Ho Nam	Korea	Member
7.	Prof. Dr. Zeinab Hussien Behairy	Egypt	Provisional Member
8.	Dr. Chung-Feng, Ding	Chinese Taipei	Member
9.	Dr. Kazumi Yamaoka	Japan	Member
10.	Eng. Karshiyev Rustum Jurayevih	Uzbekistan	Provisional Member
11.	Ir. Felipe Dantas	Australia	Provisional Member
12.	Mr. Syaiful Mahdi	Indonesia	Observer
13.	FAO representative		Permanent Observer
14.	CIGR represent-tative - Mr. Herbert H. Van Lier		Permanent Observer
15.	Prof. D. Wrachien	Italy	Permanent Observer
16.	ICRISAT representative		Permanent Observer

III.O.3 — WG-NCWRI			
No.	**Members**	**Country**	**Remarks**
1.	Dr. (Ms.) Anna Tedeshi	Italy	Chair
2.	Mr. Wu Wenyong	China	Secretary
3.	Dr. Tapas Kumar Biswas	Australia	
4.	Dr. Chihhao Fan	Chinese Taipei	
5.	VPH Dr. Samia El-Guindy	Egypt	
6.	Dr. Mohamed Shaban M. Abu Salama	Egypt	
7.	Dr. Hussein Abdel Halim El Gammal	Egypt	
8.	Dr. Ratan Chand Jain	India	Provisional Member
9.	VPH Dr. Karim Shiati	Iran	
10.	Dr. Tasuku Kato	Japan	
11.	Dr. Seung Heon Lee	Korea, Rep. of	
12.	Mr. Mohamed Ouhssain	Morocco	Provisional Member
13.	Dr. Muhammad Munir Ahmad	Pakistan	
14.	Prof. Leon van Rensburg	South Africa	
15.	VPH Dr. R. Ragab	United Kingdom	
Permanent Observers			
16.	FAO representative		
17.	ICBA representative (UAE)	UAE	

III.S.1 — WG-IDM			
No.	**Members**	**Country**	**Remarks**
1.	Ms. Mary Jean M. Gabriel	South Africa	Chair
2.	Mr. Ahmet Şeren	Turkey	Vice Chair
3.	Dr. Katsuyuki Shimizu	Japan	Secretary
4.	Dr. Amgad Elmahdi	Australia	
5.	Dr. Wu Jingwei	China	
6.	Dr. Ming-Young Jan	Chinese Taipei	
7.	Eng El Sayed El Yamani Ali Sarkees	Egypt	
8.	Dr Eman Ragab Mohamed Nofal - Young Professional	Egypt	
9.	Mr. Waleed Hassan	Egypt	
10.	Eng. Mohammed Omar Makram Afify – Young Professional	Egypt	
11.	VPH Francois Brelle	France	
12.	Prof LB Roy – Direct Member	India	
13.	Dr. Narges Zohrabi	Iran	
14.	Ir. Mat Hussin Bin Ghani	Malaysia	

15.	Mr. Tariq Altaf	Pakistan	
Permanent Observers			
16.	VPH Ian Makin (UK)	UK	
17.	VPH Hafied Gany (Indonesia)	Indonesia	

III.S.2 — WG-IOA			
No.	**Members**	**Country**	**Remarks**
1.	VPH Dr. Hafied Gany	Indonesia	Chairman
2.	Dr. Kazumi Yamaoka	Japan	Vice Chairman
3.	VPH Madhav Belbase	Nepal	Secretary
4.	VPH Ding Kunlun	China	
5.	Dr. Yu-Chuan Chang	Chinese Taipei	
6.	Dr. Seong Joon Kim	Korea, Rep. of	
7.	Mr. Abdullahi Abdul Rahman Ogole	Nigeria	
8.	Dr. Qazi Tallat Mahmood Siddiqui	Pakistan	
9.	Mr. Hasan Basri Yuksel	Turkey	
10.	Mr. Philip J. Riddell	UK	
11.	VPH Franklin Dimick	USA	

III.S.3 — WG-M&R			
No.	**Members**	**Country**	**Remarks**
1.	VPH Ian Makin	UK	Chairman
2.	Dr. Dong Bin	China	Vice Chairman
3.	Engr. Muhammad Sani Bala	Nigeria	Secretary
4.	Dr. Chih-Hung Tan	Chinese Taipei	
5.	Prof. Dr. Tarek Ahmed El-Samman	Egypt	
6.	Dr. Sanjay Belsare	India	
7.	Ir. Eko Subekti	Indonesia	
8.	Mr. Mehrzad Ehsani	Iran	
9.	Mr. Omid Moridnejaad	Iran	
10.	Mr. Ali Omran Ali	Iraq	
11.	Dr. Yohei SATO	Japan	
12.	Dr. Dr. Shinji Fukuda	Japan	
13.	Ms. Kwang-Sik Yoon	Korea, Rep. of	
14.	Mr. Mohd Yazid bin Abdullah	Malaysia	
15.	Mr. Usman-e-Ghani	Pakistan	
16.	Ms. Mona Liza Delos Reyes	Philippines	
17.	Engr. Reyne B. Ugay	Philippines	
18.	Mr. Jan Potgieter	South Africa	
19.	Dr. Brian T. Wahlin	USA	
Permanent Observers			
20.	Mr. Alan Kendall Clark	UK	
21.	FAO Representative- (Ms. Robina Wahaj)		

III.S.4 — WG-RWH			
No.	**Members**	**Country**	**Remarks**
1.	Mr. Geoff Harvey	Australia	Chair
2.	Mr. Michael Smit	Australia	
3.	Ms. Kathleen Heuvel – Young Professional	Australia	
4.	Mr. Warren Helgason	Canada	
5.	Dr. A.K. Randev, Chairman, WG-SON-FARM	India	
6.	Dr. Ratan Chand Jain	India	Provisional Member
7.	Prof. (Ms.) Elena Bresci	Italy	Provisional Member
8.	Mr. Hisham Ghazali	Malaysia	
9.	Mr. Bashu Dev Lohanee	Nepal	
10.	Ms. Mary Jean Gabriel, Chair, WG-IDM	South Africa	
11.	VPH Dr. R. Ragab, Chairman, WG-WATER & CROP	United Kingdom	
12.	Dr. Puspa Raj Khanal (FAO)		

III.S.5 — WG-SDRG			
No.	**Members**	**Country**	**Remarks**
1.	Mr. Bernard Vincent	France	Chairman
2.	Dr. Momon Sodik Imanudin	Indonesia	Vice Chairman
3.	Ms. Wang Shaoli	China	
4.	Dr. Ashraf El Sayed Ismail	Egypt	
5.	Eng. Mohamed Saleh El-Basyony	Egypt	
6.	Eng. Maiada Mohamed Anwar	Egypt	
7.	Eng. Dina Mahmoud Mohamed Ali - Young Professional	Egypt	
8.	Mr. Mati Tonismae	Estonia	
9.	Ms. Helena Aijo	Finland	

10.	Dr. Gurbachan Singh	India	
11.	Prof. LB Roy – Direct Member	India	
12.	Dr. Ratan Chand Jain	India	Provisional Member
13.	Mr. Ardavan Azari	Iran	
14.	VPH Shinsuke Ota	Japan	
15.	Dr. (Ms.) Naoko Koshiyama	Japan	
16.	Dr. Natsuki Yoshikawa	Japan	Provisional Member
17.	Prof. Seong Joon Kim	Korea, Rep. of	
18.	Ir. Mohd Anuar Musardar bin Yusoff	Malaysia	
19.	Dr. Henk Ritzema	Netherlands	
20.	Mr. Fazal Rehman Kashif	Pakistan	
21.	Dr. Yurii Yanko	Russia	
22.	Prof. Aidan Senzanje	South Africa	
23.	Dr. James Ayars	USA	

III.S.6 — WG-WATS			
No.	**Members**	**Country**	**Remarks**
1.	Mr. Mehrzad Ehsani	Iran	Chairman
2.	VPH Adama Sangare	Mali	Vice Chairman
3.	Mr. Mortaza Yazdekhasti - Young Professional	Iran	Secretary
4.	Ir. Felipe Dantas	Australia	Provisional Member
5.	Ms. Jianxin Mu	China	
6.	Dr Ray Shyan Wu	Chinese Taipei	
7.	VPH M. Hassan Amer	Egypt	
8.	Eng (Ms.) Hala Ramadan El-Sayed Ismail	Egypt	
9.	Dr Mohamed El-Hagarey	Egypt	
10.	Dr. P. Soman – Direct Member, Jain Irrigation Systems Limited (JISL)	India	
11.	Mr. Abijit Joshi – Direct Member, JISL	India	
12.	Prof. Michele Perniola	Italy	
13.	Dr. Tasuku Kato	Japan	
14.	Prof. (Ms.) Kyung-Sook Choi	Korea, Rep. of	
15.	Dr. Ashfaq Ahmed Sheikh	Pakistan	
16.	Dr. Joe Stevens	South Africa	
17.	Eng. S. Mohanarajah	Sri Lanka	
18.	Mr. Yalçin Dalgin	Turkey	
19.	Isomiddin Akramov	Uzbekistan	Provisional Member

Permanent Observers			
20.	Mr. S.P. Jadhav – Direct Member, JISL	India	
21.	IWMI Representative- Mr. Ian W. Makin	UK	
22.	FAO Representative- (Ms. Robina Wahaj)		

Note: Secretary General, ICID or his representative will be Member of each WG or TF.

Strategy Themes: B - Basin; K - Knowledge; O - On-Farm; S - Schemes

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Report of the 40th Meeting of the PERMANENT FINANCE COMMITTEE (PFC)

05 September 2019: 09:00-11:00 hours (Session I)
05 September 2019: 11:15-13:15 hours (Session II)
Bali, Indonesia

Members Present: (1) Vice President Hon. Laurie Tollefson, Chairman (Canada, 2014); (2) Vice President Mr. Naoki Hayashida (Japan, 2014); (3) Vice President Dr. Irene Bondarik (Russia, 2014); (4) Vice President Engr. Husnain Ahmad (Pakistan, 2014), Represented By Mr. Waseem Nazir (Pakistan); (5) Mr. Ali Reza Salamat (Iran, 2016); (6) Dr. Marco Arcieri (Italy, 2017); (7) Prof. Mohamed Benmoussa (Morocco, 2018); (8) Mr. Gao Lihui, (China, 2019); and (9) Er. Ashwin Kumar Balwantray Pandya, Secretary General, ICID.

Observers Present: (1) Eng. Felix Britz Reinders (South Africa); (2) Dr. Saeed Nairizi (Iran); (3) Mr. Bryan Ward (Australia); (4) Mr. Kenji Miyagawa (Japan); and (5) Er. Harish Kumar Varma, Executive Director, ICID.

General Note: Conversion rate of US$ versus INR(₹) (Indian Rupee) used in the budget and forecasts –

1. A conversion rate of US$1 = ₹ 65 was assumed in the forecast for the FY 2018-19 on the basis of the exchange rate in the preceding 15 months commencing from April 2017 to June 2018. Subscriptions actually received were, of course, converted based on the prevalent rate. The difference in the subscription budgeted receipts and the subscription actual receipts due to change in the exchange rate are accounted for as part of 'Other Receipts'

2. Based upon average exchange rate of US$ 1 for the last fifteen months from April 2018 to June 2019, an exchange rate of US$ 1 = ₹ 70 has been assumed for the Revised Budget (proposed) for the FY 2019-2020, Budget for FY 2020-21 and Preliminary Budget for 2021-2022 and Forecast Budget for the FY 2022-2023.

PFC Minutes Item 1: Review of the Membership of the Committee

3. PFC noted and recommended for approval of two new nominations of Mr. Delbert M. Smith, P.E., USA NC (USCID) and Mr. Gao Lihui, China NC (CNCID).

4. PFC noted that the term of the Chairman of PFC, Vice President Hon. Laurie Tollefson will be coming to an end with the conclusion of 71st Executive Council meeting (IEC) at Sydney, Australia in September 2020. As per ICID By-laws 3,9,3(b), "The Chairperson of this Committee shall be chosen at the Executive Council meeting either from among Office-Bearers (preferably those in offices) elected to this Committee or others who shall have been in service on the Committee at the time of appointment of the Chairperson". The Committee deliberated on the matter and decided to elect VP Dr Marco Arciery (Italy) as Vice Chairman as PFC Chair in 2020. IEC approved election of Vp Dr Marco Arciery as Vice Chair, who will take over as Chairman PFC during the next meeting of the Committee at Sydney, Australia in September 2020 for a smooth transition.

PFC Minutes Item 2: Report of the Direct Membership Administering (DMA) Sub-Committee

5. Based on the report of DMA Sub-committee, the PFC recommended and IEC approved the following as Direct Members of ICID.

Sl. No.	Name of Applicant	Country	Type of Membership Applied for
1.	Maharashtra Water Resources Regulatory Authority (MWRPA)	India	The institution (3 years)
2.	Ningbo Yaofeng Hydraulic Electrics Co. Ltd.	China	Company (3 years)
3.	Prof. (Dr.) Mitthan Lal Kansal	India	Individual (Life Membership)
4.	Dr. Ajay Pradhan	India	Individual (Life Membership)
5.	Agricultural Growth of Rural India (AGRI)	India	The institution (1 Year)

6. The aspect of request of Islamic Development Bank (IsDB), who are also desirous of becoming an institutional member of ICID as a life member was discussed in detail. It was the general consensus that the membership of IsDB can be approved once they pay the fees for an initial term of 3 years as per the usual practice. In the meanwhile, the issue of the life membership for an institution category direct member can be decided by a Task Force. Some Members were of the view that while the life membership can be granted, the subscription payments can be made

every three years or for a longer period with the discounts as being offered now. The longer period between subscription payments can also be considered. The Committee recommended to IEC that all these aspects can be considered by the task force and can come up with the recommended approach. VP Dr. Marco Arcieri was proposed for chairing the Task Force with Secretary General as the member secretary. Other members will be included with the advise of the President, ICID. The recommendations of the task force will be brought up to PFC and further action then on can be taken. IEC in its meeting on 7 September 2019 approved setting up of the Task Force.

PFC Minutes Item 3: Review of the position of arrears of annual subscriptions from NCs and Membership status

7. PFC noted with regret that National Committees of Chad, Ethiopia and Niger continue to be in membership subscription arrears of three years, besides the membership subscription for the year 2019 so far. Several requests have been made to these NCs to clear their balance of subscription. PFC considered and recommended to IEC to apply By-law 13.2 to above National Committees declaring them as "Associate Members" from 1st January 2020 if their dues are not cleared by 31st December 2019. IEC approved the recommendation PFC.

8. *Slovenia has* not cleared their membership dues for two years 2017 and 2018. PFC considered and recommended IEC to apply By-law 13.1 to these National Committees debarring them from holding office whether it be as Office Bearer or as a member of a work body until such time the arrears are paid, which was approved by IEC. However, PFC noted that *Ukraine has* cleared their membership subscription which were due for two years 2017 and 2018. For the year 2019, their membership dues are yet to be received in both cases.

9. In case of Tajikistan, arrears are existing for the past years 2015 and 2016. However, they have paid their subscription for the years 2019. PFC recommended that the pursuation may be continued with the National Committee to clear their dues for the past gap period.

10. PFC noted with appreciation that The Saudi Arabian National Committee (SACID) has cleared their dues of US$ 21,865 up to 2018 even after being associate member and now is an active member of ICID. PFC and IEC welcomed Saudi Arabia as active Member of ICID.

11. PFC was informed that Interest has been expressed by Senegal and Mongolia for obtaining membership of ICID and appropriate documents have been provided to them with the explanation to initiate action for the membership.

PFC Minutes Item 4: Review of the financial status of recently held ICID events

PFC Minutes Item 4.1: 68th IEC and 23rd Congress, Mexico, 08-14 October 2017

12. PFC appreciated and thanked Mexican National Committee of International Commission on Irrigation and Drainage (MXCID) to make a special contribution to ICID budget amounting to US$ 57,419/-, 35% share of US $ 1,64,055/- out of from the registration fee collected for the 68th IEC and 23rd Congress meetings held in Mexico City, Mexico held during 08-14 October 2017.

PFC Minutes Item 4.2: 8th Asian Regional Conference, Kathmandu, Nepal 02-04 May 2018

13. PFC thanked The Nepal National Committee of ICID (NENCID) for committing to make special contribution to ICID budget amounting to 5% share from the registration fee collected of the 8th Asian Regional Conference (ARC) held in Kathmandu, Nepal from 02-04 May 2018. The Committee recommends that IEC may like to record its appreciation to NENCID for the successful organization of 8th Asian Regional Conference (ARC).

PFC Minutes Item 4.3: 69th IEC, Saskatoon, Saskatchewan, Canada, 12-17 August 2018

14. PFC appreciated and thanked Canadian National Committee of International Commission on Irrigation and Drainage (CANCID) to make a special contribution to ICID budget amounting to US $ 30,217/- equivalent to 15% of the registration fee collected for the 69th IEC meeting held in Saskatoon, Saskatchewan, Canada held during 12-17 August 2018.

PFC Minutes Item 4.4: 9th International Micro Irrigation Conference, Aurangabad, Maharashtra, India, 16-18 January 2019

15. PFC thanked the commitment of The Indian National Committee on Surface Water of International Commission on Irrigation and Drainage (INCSW) for making a special contribution to ICID budget amounting to 5% share from the registration fee collected for the 9th International Micro Irrigation Conference, Aurangabad, Maharashtra, India held during 16-18 January 2019.

PFC Minutes Item 5: Financial proposals for the forthcoming ICID events

16. PFC noted that the financial arrangements for the 71st IEC and 24th Congress, Sydney, Australia, 22-28 September 2020 were already approved as per minutes of the 37th meeting of the PFC of 67th IEC Meeting.

17. PFC also noted that the financial arrangements for the 5th African Regional Conference (5AfRC) at Rabat, Morocco in March 2020 were approved as per minutes of the 39th meeting of the PFC of 69 IEC Meeting. PFC was informed that MB in its meeting held in April 2019 at Rabat, Morocco considered ANAFIDE's request for changing the venue to Markesh from initially approved venue of Rabat.

18. Registration fee structure of these events are reproduced below in a tabular format.

Venue / Year	**Sydney, Australia, September 2020**	**Marrakech, Morocco, March 2020**
Event	71st IEC and 24th Congress	5th African Region Conference
		Revised Rate*
Full Registration	$ 800	$ 350
Non-Member Fee	$ 900	$ 400
Young Professional (International)	$ 400	$ 175
Young Professional (Local)	--	$ 100
Local Delegates	$ 800	$ 150
Retired Professionals (International)	$ 400	$ 150
Retired Professional (Local)	--	$ 150
Accompanying Persons (International)	$ 300	$ 150
Accompanying Persons (Local)	--	$ 150
Delegates from Low Income	--	$ 300
*As approved in 39th Meeting of PFC (69th IEC)		

19. It was informed by Mr. Bryan Ward IACID that the early bird discounts of USD 50 have been provided till March 2020. The fee structure was noted. PFC was informed that the support for YPs as per the existing norms will be provided by the Central Office.

PFC Minutes Item 6: To discuss the audited accounts of ICID for the year 2018-2019 and recommend to the IEC

20. The Committee considered the Audit Report of M/s P.K. Chopra & Co., Statutory Auditors for the financial year 2018-2019 presented in **Annex 1, page 7** of PFC agenda notes**.** The PFC having been satisfied with the report, recommended that the Audit Report for the FY 2018-2019 submitted by M/s P.K. Chopra & Co., be approved.

21. The Committee obsereved that the arrears of subscriptions during the current year represent the normal time lag in remittance of subscription by NCs.

PFC Minutes Item 7: Budget and Expenditure for the FY 2018-2019

22. The Committee noted that there has been an overall surplus of ₹13.64 million (US$ 209,914) against a surplus of ₹ 7.05 million (US$ 108,492) envisaged in the approved revised budget for the year 2018-2019.

23. The Committee noted with appreciation that during the financial year 2018-2019 an amount of ₹ 0.34 million (US$ 5,000) was received in March 2019 as a Special Subscription for technical support of activating YP Activities from Japan National Committee of International Commission on Irrigation and Drainage (JNC-ICID), Japan.

24. The Committee also noted with gratitude a sum of US$ 20,000 out of US$ 25,250 received in October 2018 as a Special Subscription from Food and Agriculture Organisation (FAO) for organizing a study tour on Solar Powered Irrigation Systems for FAO delegation to highlight good practices, gain insights into how the potential of SPIS is realized (through targeted policies, innovative financing and user arrangements, etc., to promote and regulate such systems) and how risks are addressed. The study was fully completed by 30th June 2019 and balance payment also received.

25. Suggestions were made for providing extra services to least Developed Countries (LDCs) out of the surpluses generated. The matter may be considered for charting out the course of action in the aspect in future.

PFC Minutes Item 8: To consider revised budget proposal for the current FY 2019-2020;budget proposal for FY 2020-2021;preliminary budgets for FY 2021-2022 and forecast budget for FY 2022-2023

26. The Committee considered the revised budget for the FY 2019-2020 and the budget proposal for the FY 2020-2021, preliminary budget for 2021-2022 and forecast budget for 2022-2023. PFC noted that the increase in the income projected are largely due to increase in rental comce from the central building. The Committee also noted that there is no deficit in proposed revised budget against approved budget 2019-2020. PFC appreciated the financial management of the Central Office for maintaining a healthy situation for future.

27. The PFC appreciated the efforts of the Central Office in maintaining Gratuity Fund and Leave Encashment Fund as per requirement of Government of India.

28. The committee recommended and IEC approved the revised budget for FY 2019-2020 and the proposed budget for FY 2019-2020, presented in **Annex 2** and also noted the preliminary budget for FY 2021-2022 and forcast budget for 2022-2023. There are various initiatives in pipelines which will be reflected in the proposals in the future years as and when they materialize.

PFC Minutes Item 9: Surplus/Deficit and Cash Reserves

29. The Committee noted that the Cash Reserves as at the beginning of the FY 2019-2020 were INR 42.11 million (US $ 647,854) considering Cash, Bank and Investments. The reserves for the previous year of 2018-2019 were INR 40.38 Million (US$ 621,230). The Committee appreciated the endeavours to improve the cash reserve vis-à-vis annual expenditure on an incremental basis.

PFC Minutes Item 10: Report of the Task Team to look into Financial Aspects of Special Contribution to ICID Budget from ICID Events (TT-FASCIB)

30. The Committee perceived that in compliance with the decision of 69th International Executive Council (IEC) Meeting held on 17th August 2018 (Resolution IEC-2/69, Saskatoon, Canada), a Task Team to look into Financial Aspects of Special Contribution to ICID Budget (TF-FASCIB) from ICID Events was set up, with the approval of the Management Board (MB) at its fourth virtual meeting (4/18) held on 01 November 2018.

31. The PFC also observed The Terms of Reference (ToRs) of the TF-FASCIB are as follows: (i) To look into the financial aspect of special contribution to ICID budget from ICID Events in the form of share of registration fees etc. and its implications, commensurate with the inputs from ICID Central Office towards the successful organization of the ICID events, and (ii) To evaluate the need, consequences and benefit of approving the initial registration fee in the local currency of host NC organizing the event and later converting it into US Dollar at the time of opening up of registration for a particular event to the public.

32. The PFC also noted that Virtual Meeting of the TF was organized on 27 June 2019 where SG Ashwin Pandya presented brief details of the background of setting up of the Task Team, past and present practices in respect of share of ICID from registration fees and status of contribution received by ICID from various events.

33. The PFC appreciated that the TF deliberated on the issue and in the light of background information, actual realization of special contribution to ICID budget from events and input provided by the ICID CO in organizing events and noted recommendation to continue with the present share of contribution from ICID events as indicated below.

34. 35 percent for IEC with World Irrigation Forum and Congress

35. 15 percent in case of ordinary IEC with or without regional conference

36. 5 percent in case of stand-alone Regional Conferences, International Workshops, Symposiums etc.

37. The PFC also noted and agreed with the opinion of the TT that generally registration is completed by the participants during last 4-5 months, mainly around last date for early bird discount. Thus, fixing registration fee in local currency or in USD may not have significant financial impact hence, continue with approving registration fee in USD as at present.

38. In view of the recommendations of the TT, PFC after deliberation approved to continue with the present share of contribtion from ICID events as indicated in para 33 above, which was subsequently also approved by IEC in its meeting held on 7 September 2019..

39. During deliberation, Chair C-CONGR pointed out the need for relook at the fixing of the fee structure once again in view of the fact that presently we have no bid for the 2023 congress which is the indication towards the

financial pressure being felt by the organizing committees of various countries. It was opined that the events have to generate adequate support from the sponsorships and exhibition and other areas for ensuring the financial viability. After extensive discussions, it was decided that the task force may continue to have a look at the options available with a short turnaround time for ensuring offers for the future events for ICID.

PFC Minutes Item 11: Report of the Special Task Force on Independent Service Unit (ISU)

40. The 69th IEC meeting held at Saskatoon in August 2018 vide Resolution IEC-1/69 has granted an 'in principle' approval for the development of a detailed project proposal and obtain necessary statutory approvals for potential launch of ISU as part of 70th year celebrations of ICID. Accordingly, ICID CO engaged SGH Mr. Avinash C. Tyagi to prepare detailed proposal for Techno-economic viability of Independent Service Unit (ISU) of ICID and M/s. U. Shankar and Associates to undertake registration process of Independent Service Unit (ISU) of ICID.

41. PFC noted that based on responses received from NCs to the questionnaire, feedback ans suggestions received from NCs during virtual meeting with them and discussions with representatives of International organisations, draft final report of detailed proposal of ISU was finalized and put up to STF-ISU for discussion in its meeting held on 23 may 2019. STF-ISU approved the report with few suggestions which were incorporated in the final report of ISU. Final report of Detailed proposal of ISU was circulated to the members of the STF and Office Bearers for their views and suggestions, if any.

42. PFC further noted that taking into account the concerns raised and suggestions made by the some members of STF and Office Bearers, further consultations were made with the financial advisors and other Taxation experts who were of the view that presently establishment of a independent unit is not essential. Alternatively, in light of the new amendments made by the Indian Government, an NGO (ICID falls under this category) can undertake the work on fee based services and undertake such works to the extent of 20% of ICID receipts during the previous year for generating incidental income. Accordingly it is peoposed to adopt a phased approach for Service Unit (SU).

43. PFC was informed that based on the discussions with the experts, following two phases for providing services by ICID are suggested :

a. **Phase I**: Start ISU as a Service Unit (SU) of ICID and provide services to our stakeholder for generating incidental income up to the extent of 20% of total receipts of ICID.

b. **Phase II**: Once SU reaches a turnover to the extent of 20% of ICID receipts in a year (likely period of this phase is 3-4 years), incorporate ISU as a separate legal entity under Indian Companies Act as suggested in the DPR, if considered necessary, otherwise.

44. PFC after deliberation agreed and recommended to adopt phased approach for setting up of Service Unit as indicated in para 43 above. PFC appreciated that the registration process of ISU has been put on hold for the time being.

45. The matter was discussed in great details and opinion was expessed by VP Waseem Nazir that unless the rules of operation and other details are codified, the implementation process may be put on hold. However, it was pointed out by Chairman of STF and others that the establishment of SU as proposed needs to be approved in principle with the requirement that the operationalization of the same can be started only after the suggested details are defined and approved. The announcement of intent will help in generating intrest amongst NCs and will enable various potential partners and NCs to come forward with the specific conditions and requirements which will help in building the rules of operation. NCs and other members were once agains requested for providing their views on the basis of the documents circulated and suggest modifications therein for appropriately incorporating the same. TF may continue to monitor the initiative and provide guidance and approvals for further course of action on the above lines.

46. Based on the deliberations, PFC recommended and IEC approved the following:

(a) In-principle approval for establishment of service unit within ICID along with proposed staff
(b) To develop rules of operation and other details including operating procedure
(c) SU to start operation only when rules and regulations are in place
(d) To establish Service Advisory Group as proposed in the proposal to guide and monitor development of rules and regulations and further action in the matter

PFC Minutes Item 12: Report on the Status of addition to CO Building for financial sustainability of ICID

47. The PFC was informed that during the MB 4/15 meeting, post-66th IEC (4/15) in Montpellier, the President suggested to explore feasibility of expanding the Covered area of ICID Central Office Building. Subsequently, based on the approval of the Management Board in its meeting held on 5 July 2018 (MB-2/18), M/s Deependra Prashad Architects & Planners (DPAP) was engaged in August 2018 for Architectural Consultancy and Liaison works.

48. The PFC noted that MB in its meeting held on 12 April 2019 at Rabat, Morocco (MB-1/19) considered various options for extension of the CO building received from M/s DPAP and MB approved the option which will create more additional area of about 3324 sq. m (FAR-2405 sq m, Non-FAR-919 sq. m) so as to get more revenue by renting out the additional available area.

49. The PFC was informed that as advised by the MB, the issue of securing loan for expansion of CO building was also explored with the Banks and further consultations have been made with the Architect to firm up the design and layout. During discussions with the Banks, it transpired that the Banks will be providing loans up to 75% of the estimated cost which is presently approx. Rupees 140 million.

50. The PFC noted that it is expected that all statutory approvals may be obtained by 31 December 2019 and then tender for construction new building would be invited. Actual construction of the building is likely to start during April 2020 and the work shall be completed in 18 months' time. As per preliminary construction planning, 70% expenditure (Rs.100 million) will be done during the financial year 2020-21 and rest 30% (Rs.40 million) during the financial year 2021-2022.

51. At present, the financial institutions have provided the estimated rates of interest and terms of repayment of loans. The firm offer of terms will be provided by them only after the submission of the approved plans from the statutory authorities. The PFC took note of the progress and suggested that the exact financial implications once in hand, may be put up to the PFC for examination and approvals.

PFC Minutes Item 13: Miscellaneous Financial Issues

The PFC noted that ICID has already shifted PF accounts of its staff members to Employees' Provident Fund Organisation (EPFO) w.e.f. 01 April 2013. ICID EPF Trust has paid all dues to its members. PFC noted that the the process of dissolution of ICID EPF Trust is under progress. As per income tax department notices, liability for AY 2014-2015 & 2015-2016 is about of ₹ 03.81 million (US$ 54,429) and case is under appeal with IT Department.

PFC Minutes Item 14: Any Other Business

The Permananet Finance Committee noted with appreciation the constant and sincre efforts of Central Office, ICID for revitlaising registration under Foreign Contribution Regulation Act (FCRA) (renewal / restoration / fresh application).

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Report of the 30th Meeting of the PERMANENT COMMITTEE ON STRATEGY AND ORGANIZATION (PCSO)

05 September 2019, 14.00-18.15 hours
Bali, Indonesia

Mandate: The Permanent Committee on Strategy and Organization (PCSO) shall be concerned with increasing the number of member countries and assisting the National Committees to become more active in their own countries to achieve the goals set for them from time to time by the Council. The Committee will also coordinate the activities of Vice Presidents (Resolution IEC-3/66)

Members Present: (1) Vice President Dr. Brian T. Wahlin, Chairman (USA, 2017); (2) Mr. Amali Abraham Amali, Coordinator, IYPeF, Vice Chair (Nigeria); (3) Vice President Hon. Prof. Dr. Charlotte de Fraiture (The Netherlands, 2015); (4) Vice President Hon. Mr. Ian William Makin (UK, 2015); (5) Vice President Hon. Prof. Dr. Abdelhafid Debbarh (Morocco, 2015); (6) Vice President Dr. (Mrs.) Irena G. Bondarik (Russia, 2016); (7) Vice President Mr. Waseem Nazir (Pakistan, 2016); (8) Vice President Er. Madhav Belbase (Nepal, 2016); (9) Vice President Er. Naoki Hayashida (Japan, 2017); (10) Vice President Dr. K. Yella Reddy (India, 2017); (11) Vice President Dr. Marco Arcieri (Italy, 2018); (12) Vice President Dr. Kamran Emami (Iran, 2018); (13) Vice President Mr. Ahmed El Bouari (Morocco, 2018) and (14) Er. Ashwin B. Pandya, Secretary General, ICID.

Permanent Observers Present: (i) FAO representative; (ii) World Bank representative; (iii) GWP representative; and (iv) WWC representative.

Ex-Officio Members Present: (1) VPH Dr. Mohamed Wahba, Chairman, African Regional Working Group (AFRWG); (2) Chair/Representative, American Regional Working Group (AMRWG); (3) VPH Dr. Karim Shiati, Chairman, Asian Regional Working Group (ASRWG); (4) VPH Ian Makin, Chairman, European Regional Working Group (ERWG) and (5) Mr. Bryan Ward, Chairman, Committee on Congresses/Conferences (C-CONGR).

PCSO Minutes Item 1: ATR on the Minutes of the 29th Meeting of PCSO

1. The Committee noted the Action Taken Report (ATR) and approved the same.

PCSO Minutes Item 2: Membership of PCSO and its Workbodies

2. Based on the recommendations of the various workbodies associated with it, PCSO reviewed the membership and recommended for acceptance by IEC. Consequent upon the acceptance by the Council, an updated consolidated membership of all workbodies, including those of PCSO and its workbodies, is given in **Annex 4 (Page 27)** of 70th IEC minutes.

PCSO Minutes Item 3: Membership of ICID

PCSO Minutes Item 3.1: Status of ICID Memberships and Reactivation of Associate Members

3. The Committee recommended that concerned young professionals may be requested to make more efforts towards strengthening NCs and establishing NCs in countries, where there is none.

4. The Committee recommended that continuous efforts on Latin America and African Continent to be on board. Communication with Central Asian countries by the Central Office was also recommended by the Committee.

PCSO Minutes Item 3.2: Vice Presidents' reports: Strengthening regional cooperation and activities of National Committees

5. The Committee noted the role of Vice Presidents in strengthening the regional cooperation and activities of National Committees allocated to them, and expressed satisfaction. The Committee appreciated the efforts of VPs Dr. Irene Bondarik, Waseem Nazir, Madhav Belbase, Marco Arcieri, VPH Mohamed Wahba, and the NCs of CNCID, CTCID, ENCID, INACID, IRNCID, KCID, NENCID, SLANCID and TAJCID for their efforts in furthering the membership of ICID through their contacts and regional cooperation amongst the NCs.

6. VP Dr. Irene Bondarik made efforts to contact Lithuania. Efforts need to be made with the national governments. Serbia has responded positively to clear the outstanding fees and on her way to reactivation. By attending a conference in Georgia in June 2019, VP Bondarik informed that Georgia would make efforts to pay the subscription. Planned international conferences in Poland and Moscow will provide an opportunity to network and utilize the contacts already established with the Polish delegation. Documents have been circulated to Mongolia and now awaiting them to set up a National Committee.

7. The Committee recommended that the African Young Water Professionals Forum should open doors for other countries as well as have representation from non-active/existent National Committees at training sessions. The Minister for environment of Rwanda was contacted at the 9th Micro Irrigation Conference and awaiting further actions from them.

8. Saudi Arabia is now activated. The Jordan and Kuwait are yet to join ICID despite efforts by VP Waseem Nazir. The Islamic Development Bank (IsDB) is now a direct member and the Committee recommended their efforts in establishing National Committees in member countries of IsDB. The Committee also recommended the need to have more institutional members of the ICID.

PCSO Minutes Item 3.3: Recommendations of the Direct Membership Administering (DMA) – Sub Committee

9. The Committee noted and approved the proposal for granting Direct Membership to the following new applicants, as per the recommendations of DMA Sub-Committee.

Sl. No.	Name of Applicants	Country	Type of Membership Applied for
1.	Maharashtra Water Resources Regulatory Authority (MWRPA)	India	Institution (3 years)
2.	Ningbo Yaofeng Hydraulic Electrics Co. Ltd.	China	Company (3 years)
3.	Islamic Development Bank (IsDB)	Saudi Arabia	Institution (3 years)
4.	Agricultural Growth of Rural India (AGRI)	India	Institution (1 year)
5.	Prof. (Dr.) Mitthan Lal Kansal	India	Individual (Life Membership)
6.	Dr. Ajay Pradhan	India	Individual (Life Membership)

PCSO Minutes Item 4: Road Map to ICID Vision 2030: Review of the Action Plan 2017-2021

10. The Committee noted that the activities identified by WGs, RWGs, NCs, and ICID CO in the Action Plan 2018-22 and reviewed the progress made so far.

PCSO Minutes Item 5: Knowledge Management Strategy (KMS)

11. The Committee recommended continuing the activities of ICID under KMS.

PCSO Minutes Item 6: Independent Service Unit (ISU) - Relevance to ICID Mission

12. While awaiting suggestions from NCs, the Committee discussed and recommended that the proposed ISU should not become a commercial activity but remain visible while helping the ICID to become financially stable.

PCSO Minutes Item 7: Collaboration and Cooperation between ICID and other International Organizations

13. The Committee appreciated the increasing cooperation with International Organizations and collaborative activities undertaken during the year 2018-19. CSIRO Australia has had good collaborative activities with Basin Futures through Webinars and had requested to join congress. The Islamic Development Bank is also rolling out a program for capacity development in collaboration with ICID.

PCSO Minutes Item 8: Review of reports of Regional Working Groups (RWGs)

PCSO Minutes Item 8.1: African Regional Working Group (AFRWG)

14. VPH Dr. Mohamed Wahba, Chair of AFRWG presented its report and based on the report, the Committee recommended that African NCs should establish Young Professional Forums at National Level. The Committee also recommended that the 2nd Training Program should include diverse participants from more African countries.

PCSO Minutes Item 8.2: American Regional Working Group (AMRWG)

15. The Chair/Representative of AMRWG presented its report and the Committee recommended continuous translation in Spanish as a way to encourage participation of more National Committees.

16. The Committee requested Dr. Warren Helgason (CANCID), Interim Chair, AMRWG to lead the promotional activities during 2019-2020 and provide a report in the next meeting in 2020.

PCSO Minutes Item 8.3: Asian Regional Working Group (ASRWG)

17. VPH Dr. Karim Shiati, Chair of ASRWG presented its report and based on the report, the Committee recommended the need to continually organize internal workshops.

PCSO Minutes Item 8.4: European Regional Working Group (ERWG)

18. VPH Ian Makin, Chair of ERWG presented its report and based on the report, the Committee recommended with the proposed Webinar meeting to be held in October to provide updates to those who were unable to attend WIF3 as well as holding international workshops. The Committee also recommended further actions with the planned regional conference.

PCSO Minutes Item 9: Review of reports of Working Groups/Committees

PCSO Minutes Item 9.1: Committee on Congresses/Conferences (C-CONGR)

19. Mr. Bryan Ward, Chair presented its report and based on the report, the Committee recommended that from lessons learned during the WIF3, especially with logistical issues such as online registration, bank transfers and registration kits, the National Committees would need a period of at least 3 years to plan for such an event in future. This was reiterated by experience from the 69th IEC held at Saskatoon Canada. The Committee also recommended the need to have representations from the previous hosting country and the next hosting country to be included in the local organizing committee of the present country scheduled to host an ICID event. Proposals from Morocco to host the 10th Micro Irrigation Conference in Agadir, Morocco and from the Chinese National Committee to host the 4th World Irrigation Forum were recommended for approval.

20. Based on the report of C-CONGR, the Committee recommended that young professionals should be represented in the Local Organizing Committee of Congresses/Conferences as well as to review the fee contribution by host national committees to ICID.

PCSO Minutes Item 9.2: ICID Young Professional's e-Forum (IYPeF)

21. Mr. Amali Abraham Amali, Coordinator, IYPeF presented its report and based on the report. The activity base of IYPeF needs to be expanded to involve more members into the fold. The committee also noted the activeness of Young Professionals during the WIF3 and recommended the need to continuously encourage them. The revised IYPeF scheme should also be reviewed to strengthen the participation and to guide the conduct of Young Professionals in e-discussions.

PCSO Minutes Item 10: Organizational issues related to IEC, Congresses, Forums and Conferences

PCSO Minutes Item 10.1: Report of the Sub-Committee on Themes, Topics and Work Plans of future ICID Events (SC-E-THEMES)

22. The Chair of the Sub-Committee, PH Dr. Gao Zhanyi was absent, and hence, his report could not be presented at the meeting.

PCSO Minutes Item 11: Any other business

23. No other business.

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Report of the 39th Meeting of the PERMANENT COMMITTEE FOR TECHNICAL ACTIVITIES (PCTA)

06 September 2019, 09.00-18.15 hours
Bali, Indonesia

Mandate: The Permanent Committee for Technical Activities (PCTA) shall be concerned with all the technical activities of the Commission including all publications of ICID. It will be responsible for activities of the technical work bodies, for selection of Questions/Themes for Congresses, Conferences, Special Sessions, Symposia, etc., for settlement of the technical conclusions thereof and for making appropriate recommendations for action thereon.

Members Present: (1) Vice President Hon. Dr. Ding Kunlun, Chairman (China, 2015); (2) President Hon. Mr. Peter S. Lee (UK, 2013); (3) Vice President Hon. Mr. Chaiwat Prechawit (Thailand, 2014); (4) Vice President Hon. Dr. Mohamed Abd-El-Moneim Wahba (Egypt, 2015); (5) Mr. Ali Reza Salamat (Iran, 2015); (6) Dr. Tsugihiro Watanabe (Japan, 2018); (7) VP Dr. Brian T. Wahlin (USA, 2018) and (8) Er. Ashwin B. Pandya, Secretary General, ICID

Ex-Officio Members Present: (i) VP Er. Naoki Hayashida (Japan), Co-Theme Leader, Strategy Theme – Basin; (ii) VP Dr. Kamran Emami (Iran), Co-Theme Leader, Strategy Theme – Basin; (iii) VP Mr. Waseem Nazir (Pakistan), Co-Theme Leader, Strategy Theme – Knowledge; (iv) VP Dr. Brian T. Wahlin (USA), Co-Theme Leader, Strategy Theme – Knowledge; (v) VP Irene G. Bondarik (Russia), Co-Theme Leader, Strategy Theme – Schemes; (vi) VP Dr. Marco Arcieri (Italy), Co-Theme Leader, Strategy Theme – Schemes; (vii) VP Mr. Ahmed El-Bouari (Morocco), Co-Theme Leader, Strategy Theme – Schemes; (viii) VP Er. Madhav Belbase (Nepal), Co-Theme Leader, Strategy Theme – On- Farm; (ix) VP Dr. K. Yella Reddy (India), Co-Theme Leader, Strategy Theme – On-Farm; (x) Dr. Tsugihiro Watanabe (Japan), Chair, WG-CLIMATE; (xi) Dr. Shukhrat Mukhamedjanov (Uzbekistan), Chair, WG-IDSST; (xii) Mr. Michael van der Laan (South Africa) representing Chair, WG-ENV; (xiii) Mr. Clarke Ballard (Australia) representing Chair, WG-MWSCD; (xv) Dr. Ruey-Chy Kao (Chinese Taipei), Chair, WG-SDTA; (xiv) PH Prof. Bart Schultz (The Netherlands), Chair, EB-JOUR; (xv) PH Dr. Saeed Nairizi (Iran), Chair, TF-WWF9; (xvii) VP Dr. Kamran Emami (Iran), Chair, WG-VE; (xviii) Dr. A.K. Randev, Chair, WG-SON-FARM; (xix) VPH Dr. Ragab Ragab (UK), Chair, WG-WATER & CROP; (xx) Ms. Mary Jean M. Gabriel (South Africa), Chair, WG-IDM; (xxi) VPH Dr. Hafied Gany (Indonesia), Chair, WG-IOA; (xxii) VPH Mr. Ian Makin (UK), Chair, WG-M&R; (xxiii) Mr. Geoff Harvey (Australia), Chair, WG-RWH; (xxiv) Mr. Bernard Vincent (France), Chair, WG-SDRG and (xxv) Mr. Mehrzad Ehsani (Iran), Chair, WG-WATS.

Observers: (i) President Felix B. Reinders (South Africa); (ii) PH Dr. Dr. Chandra A. Madramootoo (Canada); (iii) VPH Mr. Larry D. Stephens (USA); (iv) VPH Laurie Tollefson (Canada); (v) Dr. Shavkat Khamraev (Uzbekistan); (vi) Mr. Karshiyev Rustam Djurayevich (Uzbekistan); (vii) Mr. Akhmadjonov Vokhidjon Mukhammadjonovich (Uzbekistan); (viii) Mr. Akromov Isomiddin (Uzbekistan); (ix) Mr. Kurbonov Shamsiddin Madaminovich (Uzbekistan); (x) Mr. Burhanjonov Birodar (Uzbekistan); (xi) Mr. Maurice Roos (USA); (xii) Mr. Garantigui Traore (Mali); (xiii) Mr. Naseer Ahmad Fayez (Afghanistan); (xiv) Mr. Kenji Morita (Japan); (xv) Mr. Kenji Miyagawa (Japan); (xvi) Mr. Shin Takano (Japan); (xvii) Mr. Mamoru Watanabe (Japan); (xviii) Mr. Yosuke Kitagawa (Japan); (xix) Mr. Salar Akbar (Afghanistan); (xx) Mr. Rahmatullah (Afghanistan); (xxi) Mr. Hafeezullah Hashimi (Afghanistan); (xxii) Mr. Najumuddin Najum (Afghanistan); (xxiii) Mr. Christy Omeno Oduh (Nigeria); (xxiv) Dr. Mochammad Amron (Indonesia); (xxv) Mr. Peter Chen (Taiwan); (xxvi) Mr. Rizal Siregar (Indonesia): (xxvii) Mr. Bashu Dev Lohanee (Nepal); (xxviii) Ms. Mona Liza F. Delos Reyes (Philippines); (xxix) Mr. Lutfulla Khaknazarovich Mukhamednazarov (Uzbekistan): (xxx) Mr. K.P. Bakshi (India); (xxxi) Ms. Sharon Rose S. Baiza (Philippines); (xxxii) Mr. Fuad Alshikh Mubarak (Saudi Arabia); (xxxiii) Ir. Slamet Budhi (Indonesia); (xxxiv) Ir. Deoi Sukardi (Indonesia); (xxxv) Mr. Ryu, Jeon Yong (Korea) and (xxxvi) Ir. Zeinab H. Behairy (Egypt).

PCTA Minutes Item 1: Presentation/Lecture by an Expert

1. It was proposed to have a presentation on “Basin Futures”, a web based software utility developed for basin simulation for policy support, by CSIRO, a collaborative partner of ICID. However, CSIRO Australia Team could not make the presentation as scheduled, owing to engagements elsewhere and expressed their apologies for the same to the Committee.

PCTA Minutes Item 2: ATR on the minutes of the 38th Meeting of PCTA

2. The Committee noted with satisfaction the ATR on the minutes of the 38th meeting of PCTA.

PCTA Minutes Item 3: Membership of the PCTA and Workbodies

3. PCTA considered the proposals for its membership and for the membership of various workbodies associated with it and recommended for their approval by the Council as given in **Annex R2.1.**

4. The Committee noted that PH Peter S Lee will be retiring from PCTA on completion of his tenure. The Committee placed on record their appreciation of the services rendered by PH Lee. It was recommended that VPH Ian Makin may be inducted as a member in the Committee.

PCTA Minutes Item 4: Road Map to ICID Vision 2030: Review of the Action Plan 2017-2021

5. The Committee felt that Vision 2030 activities need not remain confined to the deliberations inside the WGs, but needs to grow outside WGs by involving the other agencies and organizations. This will help in promoting and keeping the vision 2030 in focus in larger communities and groups.

6. Strategy Theme Leaders opined that number of parallel sessions may be reduced to the extent possible to allow the members to engage with multiple subjects in different WGs. For this purpose, shorter WG meetings and Regional Working Group meetings can be considered, with joint workshops be encouraged. For this purpose, the WGs have to engage more over the web-ex platforms for transacting the maximum amount of internal works.

PCTA Minutes Item 5: International Research Program for Irrigation and Drainage (IRPID) Scheme

7. The Committee noted with satisfaction that the efforts are in progress for the establishment of Mediterranean and North African Regional Nodes under IRPID Scheme. However, due to constraints of individual members, it has been decided that North African RN will be hosted by the Moroccan NC, for which the concerned National Committees have agreed. Italian NC is continuing its efforts for generating resources for the establishment of the proposed Mediterranean RN and mobilizing the associated countries for the same.

PCTA Minutes Item 6: Independent Service Unit (ISU) – Relevance to ICID Mission

8. The issue has been already discussed in PFC and the Committee noted the presentation made for informing its members about technical aspects of the program, over and above the associated phases and strategies for the implementation of the Program.

PCTA Minutes Item 7: Review of reports of the activities of Workbodies under the Strategy Theme – Basin (ST.B)

PCTA Minutes Item 7.1: Working Group on Adaptive Flood Management (WG-AFM)

9. Dr. Kamran Emami, the Chair of the WG presented the report and informed that it was decided to include some case studies such as (i) a report on SMART tunnel (Malaysia); (ii) a report on the latest status of flood management in Thailand in the aftermath of 2011 floods; (iii) a report on devastating flood in Iran (2019) and (iv) a report on the latest status of flood management in Pakistan in the aftermath of 2010 floods, in the WG's publication on 'Adaptive Flood Risk Management', viz. and the case studies will be provided by the members from respective countries. The Committee noted with satisfaction the report on the activities of the WG.

PCTA Minutes Item 7.2: Working Group on Climate Change and Agricultural Water Management (WG-CLIMATE)

10. Dr. Tsugihiro Watanabe, Chair of the WG presented the report. The Committee noted that the WG organized two virtual meetings in March and August 2019 and recommended that other WGs may follow the practice. The Committee also noted that the WG organized an International Workshop on Innovation of Developing the Strategy for Impact Assessment of and Adaptation to the Climate Change on 01 September 2019 at Bali.

11. The WG proposed to publish a "Guide to Innovated Irrigation and Drainage Management under the Changing Climate" (tentative title) as the outcome of the WG activities and the first draft will be discussed during the meeting of the WG in Sydney in 2020. The Committee recommended for its approval.

PCTA Minutes Item 7.3: Working Group on Environment (WG-ENV)

12. Mr. Michael van der Laan presented the WG report on behalf of the Chair. The WG is planning to hold a webinar during the first half of 2020 and organize a Workshop on "Ecosystem Services of Irrigation and Drainage Systems" in Australia in 2020

PCTA Minutes Item 7.4: Working Group on Irrigation and Drainage in States Under Scoio-Economic Transformation (WG-IDSST)

13. Dr. Shukhrat Mukhamedjanov, Chair, WG-IDSST presented the report. WG considered a work plan based on its new mandate and decided to hold virtual meetings of the WG twice a year, the first being scheduled in November 2019, so as to discuss various activities, including its work plan. The WG suggested to carry out work exchange experience of countries in implementing and developing IWRM, to which the Committee expressed its agreement.

PCTA Minutes Item 7.5: Working Group on Managing Water Scarcity under Conflicting Demands (WG-MWSCD)

14. Mr. Clarke Ballard presented the report of the WG n absence of its Chair, VPH Franklin E. Dimick. WG organized an Internal Workshop which was held on 5 September 2019 at Bali, where all six papers submitted were presented. The workshop was found to be useful and productive by the participants. WG will hold internal workshops ever year to present papers for the area covered that year as reflected in the modified Road Map to ICID Vision 2030. The next internal workshop will accordingly be held during Sydney meetings of ICID next year.

PCTA Minutes Item 7.6: Working Group on Sustainable Development of Tidal Areas (WG-SDTA)

15. Dr. Ruey-Chy Kao, Chair of the WG presented the 'Summary of Activities' of the WG. The WG successfully organized an International Workshop on "Integrated Development of Tidal Areas – An Exchange of Expertise from Basin Perspective" on 01 September 2019 at Bali, where eight coastal countries have presented their full papers, besides others. Realizing the importance of improving coastal protection through tidal prediction and typhoon forecasting, a Workshop on the topic "Tidal Prediction and Typhoon Wave Model" is proposed to be organized in December 2019 in Chinese Taipei. The Committee noted that WG-SDTA had held two virtual meetings in 2018 and 2019.

PCTA Minutes Item 7.7: Task Team on Transboundary Water Management and Effect on Agriculture Water Management (TT-TWM-AWM)

16. Secretary General presented the report of the TT. The Committed noted the report and asked the TT to begin its activities at the earliest.

PCTA Minutes Item 7.8: Synthesis Report by Co-Theme Leaders of ST Basin [VP Er. Naoki Hayashida (Japan) & VP Dr. Kamran Emami (Iran)]

17. The Co-Theme Leaders presented their synthesis report and made the following observations

(a) Generally, WGs are functioning quite well and productively. The activities of some WGs have been well managed and advanced according to the decisions of each WG made in the Bali meeting.

(b) Overall, the attendance of members is good. But in some cases, this is limited. Poor attendance at the meetings and lack of contribution by the members will lead to reduced productivity and output.

(c) WGs should promote the exchange of knowledge with other agriculture water management professionals by publishing the summary and outcomes in ICID NEWS.

(d) WGs should clearly identify their output in a work plan which may include technical reports, position papers, special issues of Journal of Irrigation and Drainage, seminars (internal/international) etc., in accordance with the Action Plan of the Road Map to ICID Vision 2030.

(e) More information and products of WGs should be sent to the central office so that they would be posted on the website and timely updated.

(f) More WebEx meetings should be organized, at least once in a year.

(g) Increased efforts to attract young professionals should be continued.

18. The Committee appreciated the synthesis report presented by Co-Theme Leader VP Hayashida and recommended that the observations made by the Co-Theme Leaders be put in to practice in letter and spirit.

PCTA Minutes Item 8: Review of reports of the activities of Workbodies under the Strategy Theme – Knowledge (ST.K)

PCTA Minutes Item 8.1: Working Group on Capacity Development, Training and Education (WG-CDTE)

15. As there was no report from the Chair/representative of WG-CDTE, the Committee recommended that the WG needs to be either wound up or reconstituted by induction of active members in order to have better participation in the WG meetings and contribution to its mandated activities.

PCTA Minutes Item 8.2: Working Group on History of Irrigation, Drainage and Flood Control (WG-HIST)

19. Dr. Kamran Emami, Chair of the WG presented the report and recommended that as suggested by PoJs for WHIS 2019, the number of entries per country may be restricted to four (4) in order to make the WHIS sustainable with high quality and prospective applications competitive. Accordingly, the WHIS Scheme may be revised.

20. The Committee considered the suggested modification in WHIS Scheme in terms of restricting the entries per country to four (4) and recommended to the Council for acceptance. Accordingly, the Committee asked the Central Office to revise the existing WHIS scheme adequately reflecting suggested changes in the entries per country up to four (4) and upload on ICID website and updates in respective documents such as Handbook of Procedures, etc.

PCTA Minutes Item 8.3: ICID Journal Editorial Board (EB-JOUR)

21. PH Prof. Dr. Bart Schultz, Chair of EB-JOUR in his report presented the progress about the circulation and impact factors for ICID Journal, which indicated growing popularity of the Journal. Noting the report, the Committee commended the efforts made by the Editorial Board under the leadership of PH Bart Schultz.

PCTA Minutes Item 8.4: Task Force for Updating and Maintenance of Multilingual Technical Dictionary (TF-MTD)

22. In TF-MTD report, auto-translate facility for MTD needs to be developed on the lines of a similar utility available with IWMI. The Committee asked the Central Office to take up further interactions with IWMI in the matter. It is suggested that once the English updation is completed, translation of the updated MTD in different languages can be considered by respective NCs facilitated by the Central Office.

PCTA Minutes Item 8.5: Task Force to Guide ICID Inputs to World Water Forum 9 (TF-WWF9)

23. PH Dr. Saeed Nairizi, Chair of the TF presented the report. While deliberating on the report, the Committee recommended better coordination with WWC Groups for providing richer participation from ICID in WWF9 and also to avoid clash of dates with 10th Micro Irrigation Conference and 72nd IEC in 2021 with WWF9.

PCTA Minutes Item 8.6: Working Group on Value Engineering (WG-VE)

24. The Chair of the WG-VE presented the report of its second meeting as its scoping document is yet to be developed as per the guidelines adopted vide IEC Resolution-2/63 for setting up of a new workbody or extension of an existing one with revised mandate. The Committee considered the report and recommended that the mandate of WG-VE needs to be updated to generate database on VE projects and publication of a book on VE needs to be taken up.

PCTA Minutes Item 8.7: Synthesis report of Co-Theme Leaders of ST Knowledge [VP Er. Waseem Nazir (Pakistan) & VP Dr. Brian T. Wahlin (USA)]

25. The Committee considered the report of the Co-Theme Leaders and noted with satisfaction.

PCTA Minutes Item 9: Review reports of the activities of Workbodies under the Strategy Theme – On-Farm (ST.OF)

PCTA Minutes Item 9.1: Working Group on Sustainable On-Farm Irrigation System Development (WG-SON-FARM)

26. Dr. A.K. Randev, Chair of the WG presented the report and informed the Committee that two WG publications titled "Improvement of the On-Farm Irrigation systems Using Simple Water Control, Measuring and Application Devices" and "Micro Irrigation for smallholders and greenhouses", submitted by former Chair of the WG, President Felix Reinders, will be published at the earliest with the assistance of Central Office.

PCTA Minutes Item 9.2: Working Group on Water and Crops (WG-WATER&CROP)

27. VPH Dr. Ragab Ragab, Chair of the WG-WATER&CROP suggested that the Web-Ex meeting of the working group invites may be sent to other related WG members so as to allow them to participate in the meetings and enrich the proceedings by interaction. The Committee agreed with the suggestion of the WG Chair.

PCTA Minutes Item 9.3: Synthesis report of Co-Theme Leaders of ST On-Farm [VP Er. Madhav Belbase (Nepal) & VP Dr. K. Yella Reddy (India)]

28. Co-Theme Leaders presented their synthesis report and informed the Committee that the WGs under ST-On-Farm have been organizing activities as per their mandate and functioning well. The Co-Theme leaders recommended that given the variable tenures of the three WGs to bring out an expected output (guidelines/ position papers, technical reports etc.) in due course of time, it would be appropriate to extend the tenures of the WG-WATER & CROP (closing in 2019) and WG-SON-FARM (closing in 2022) to 2025 so as to be in concurrence with the closing of WG-NCWRI.

29. The Committee recommended that the respective Chairs of the WGs on WATER&CROP and SON-FARM may follow the procedures adopted by the Council for extending the duration of the workbodies beyond their mandated period and submit the scoping documents at the next meeting of the Committee for its consideration.

PCTA Minutes Item 10: Review of reports of the activities of Workbodies under the Strategy Theme – Schemes (ST.S)

PCTA Minutes Item 10.1: Working Group on Irrigation, Development and Management (WG-IDM)

30. Ms. Mary Jean M. Gabriel, Chair of the WG presented her report and informed that the WG is proposed to hold a virtual meeting in the coming year, with the cooperation of its members. The Chair will work with the Chair of the WG M&R, VPH Ian Makin to work on the updation of 'Operation, maintenance and management' section of MTD.

PCTA Minutes Item 10.2: Working Group on Institutional Aspects of Irrigation / Drainage System (WG-IOA)

31. VPH Dr. Hafied A. Gany, Chair of the WG presented the report and informed that the WG is planning to brign out publications and a symposium in 2020 at Sydney Congress.

PCTA Minutes Item 10.3: Working Group on Modernization & Revitalization of Irrigation Schemes (WG- M&R)

32. VP Ian Makin, Chair of the WG presented the report and informed the Committee that WG-M&R is proposing to induct more members from Nigeria as per their request keeping the membership guidelines in view. The papers are proposed to be submitted to IRD journal for publication and a soft publication is planned for dissemination through the web site. Proposals for internship opportunities for YPs through the companies were also discussed.

PCTA Minutes Item 10.4: Working Group on Rain Water Harvesting (WG-RWH)

33. Mr. Geoff Harvey, Chair of the WG in his presentation informed that the scope of the WG-RWH needs to be focused on capture of rain water in preference to usage aspect. A position paper collecting the experiences at various countries need be developed. The WG plans to have a virtual meeting in the last quarter of 2019. The Committee suggested that the WG should have a diversified membership.

PCTA Minutes Item 10.5: Working Group on Sustainable Drainage Management (WG-SDRG)

34. Mr. Bernard Vincent, Chair of the WG presented the report. WG-SDRG is planning to hold next Drainage Workshop in Canada/ USA in consultation with the concerned NCs. Flood management and Urban Drainage are required to be included in the scope of the WG. Design of control structures also needs to be considered for the agenda of the WG.

35. The Chair also presented the report on the completion of the mandate of the WG. Considering the importance of the topic Drainage, the Committee recommended for the extension of the tenure of the WG up to 2020. The WG may develop a Scoping Document for the new WG with revised mandate and present it at the next IEC meeting, with at least 10 National Committees agree to support its activities by nominating experts to participate in the activities of the WG.

PCTA Minutes Item 10.6: Working Group on Water Saving in Irrigated Areas (WG-WATS)

36. Mr. Mehrzad Ehsani, Chair of the WG presented the report. The group is in the process of preparing a technical book on 'Water charging polices and mechanism to analyze the effect of water charges on water saving in agriculture'. The Chair informed that Ms. Mu. Jianxin (China) will prepare a brief write-up and coordinate for organizing an internal WG workshop during the next ICID meeting in Sydney in 2020. VPH Dr. Gerhard Backeberg and Dr. Joe Stevens (South Africa) will draft a paper based on the South African experience and would table the final paper on South African case study.

PCTA Minutes Item 10.7: Synthesis Report by Co-Theme Leaders on ST Schemes [VP Dr. (Mrs.) Irene Bondarik (Russia), VP Dr. Marco Arcieri (Italy) & VP Er. Ahmed El-Bouari (Morocco)]

37. The Co-Theme Leaders of ST-Schemes presented their synthesis report which was noted with satisfaction by the Committee.

PCTA Minutes Item 11: Newly Proposed Workbodies

38. The Committee asked the WG-VE to develop a scoping document as per the guidelines laid down by 63rd IEC meeting in 2012 vide its Resolution-2/63 for setting up of a new workbody or extension of an existing one with revised mandate. The Committee recommended the establishment of WG-VE, subject to submission of the revised Scoping Document for getting support of at least 10 NCs to nominate experts from their countries to participate in the activities of the WG.

PCTA Minutes Item 12: Report on the outcome of WIF3

39. The INACID Representative presented the outcome of WIF3. It was informed that 1417 participants joined the Forum representing 53 countries. Also, six Hon'ble Ministers participated in the Forum and HLAG providing their views and suggestions of their respective countries. Many key parameters of organizational aspects were presented which will enrich the manual on the events and also help in future events. The Committee expressed pleasure at the successful organization of the Forum and commended the host NC for its excellent organization.

PCTA Minutes Item 13: Report of the Sub-Committee on Themes, Topics and Work Plans of future ICID Events (SC-E-THEMES)

40. PH Dr. Gao Zhanyi, Chair of the Sub-Committee could not present the report of the meeting of the SC-E-THEMES as he had to leave the venue on account of urgent engagements elsewhere.

PCTA Minutes Item 14: Any other business

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MINUTES OF THE 30TH MEETING OF THE
AFRICAN REGIONAL WORKING GROUP (AFRWG)
05 September 2019, 09:00-11:00 hours (Session I) and 11:15-13:15 hours (Session II)
Bali, Indonesia

Presented by the Chairman

Year of Establishment: 1994

Mandate: To promote links and networking among the African countries as well as regional and international institutions for enhancing cooperation and coordination, and to support integrated river basin development, training and research issues and information system for African needs.

Members Present: (1) VPH Dr. Mohamed Wahba, Chairman (Egypt); (2) Prof. Sylvester Mpandeli, Vice Chair (South Africa).

Observers: (1) President Felix Reinders (South Africa); (2) Robyn Johnston (Australia); (3) Engr. Ouango François (Burkina Faso); (4) Yaohu Kang (China); (5) Zeinab Hussein Behary (Egypt); (6) Er. B.A. Chivate, ICID Central Office (India); (7) Hafiez Ihsan (Indonesia); (8) Garantigui Traore (Mali); (9) Dr. El Houssine Bartali (Morocco); (10) Bouaam Mohamed (Morocco); (11) Engr. (Mrs.) Oluniyi Esther Oyeronke (Nigeria); (12) Ipinlaye Olaiya (Nigeria); (13) Fati Yerima (Nigeria); (14) Aderibigbe Cathrine (Nigeria); (15) Dauda Madu (Nigeria); (16) Sunmonu Kenneth (Nigeria); (17) Christy Omeno Oduh (Nigeria); (18) Iliya M. London (Nigeria); (19) Dr. Elijah A. Aderibigbe (Nigeria); (20) Bala Muhammad Sani (Nigeria); (21) Ali, Mohammed Abdullkarim (Nigeria);(22) David Emmanuel (Nigeria); (23) Bashir Beshir Bala (Nigeria); (24) Peter Y. Manjuk (Nigeria); (25) Dr. A. Senzanje (South Africa); (26) Peter McCornick (USA).

Website: http://afrwg.icidonline.org/

AFRWG Minutes Item 1: Action taken report by Chair

1. The Chair VPH Dr. Wahba explained to the group about the actions taken after last meeting in Saskatoon 2018 as follows:

2. **Virtual meeting**: No virtual meeting of the WG could be arranged during the period since last meeting in Canada 2018, but have regular discussions and sharing suggestions through emails, WhatsApp groups and AfYWP-Forum. First e-discussion of Af-YWP Forum was organized. The Webinar program for AfYWP-Forum has been started and a lecture by Prof. Kang (Chines Academy of Science) about advance irrigation technologies was given in August 2019.

3. **Organization of the First African Young Water Professional Forum:** The Chair briefed about the achievements of organizing the First African Young Water Professional Forum under the platform of 1st Cairo Water Week in October 2018. At the end of the Forum, the African Young Water Professional Forum was launched as a platform for African Young Professional and Chair made presentation about the report during the meeting.

4. **Establishment of African young Water Professional Forum (Af-YWPF):** The Chair indicated that the African Young Water Professional Forum was established after the First African Young Water Professional Forum and the total number is about 700 members as on date, which is a very strong platform for all African Young Professional. First e-discussion of Af-YWP Forum was organized. The Webinar program for AfYWP-Forum has been started and a lecture by Prof. Kang (Chines Academy of Science) about advance irrigation technologies was given in August 2019.

5. **Reactivation of NCs**: As a follow-up of reactivation of National Committees (NCs) of African countries as well as active contribution of the NCs in ICID activities, ICID Central Office had followed-up with the young professionals from Ethiopia, Malawi, Mali, Niger, Madagascar Chad, Somalia, and Tanzania who attended the First African Young Water Professional's Forum (Af-YWPF) in October 2018 at Cairo to liaise with their National Committee/ Ministry in their country to find about the status and possibilities of payment of annual membership subscription of their National Committee. Also, the Chair approached to some non-active NC's to encourage them to join the ICID and AFRWG activities (Tunisia and Algeria).

6. **Training Needs Assessment**: the final report had been finished and circulated to all African NC's and also to some funding organization for financial support of capacity building of YP's and the chair made presentation about the report during the meeting (available at http://www.icid.org/AFRWG_TNA_Report.pdf).

7. **5th African Regional Conference 16-19 March 2020, Marrakesh-Morocco**: the second brochure of the conference had been circulated and a report of latest updates of the conference was made by Prof. Bartali, Vice Chairman of Moroccan National Committee during the meeting (refer item 8).

8. The Chair expressed his high appreciation to all African NC's members and encouraged them to nominate new members in the AFRWG (one member and one observer besides YPs are welcome). The chair appreciates the help of ICID-CO to circulate an email to all African NC's for these nominations. Membership status is given in **Annex 4 (page 27)**.

AFRWG Minutes Item 2: Road Map to ICID Vision 2030 – Status of activities in the African region

9. During Saskatoon meeting, the group reviewed and discussed the Road Map to ICID Vision 2010 (refer **Annex**). With the efforts of the Chair, a Memorandum of Understanding (MoU) between Moroccan National Committee on Irrigation and Drainage (ANAFIDE) and Egyptian National Committee on Irrigation and Drainage (ENCID) was proposed to be signed during the Cairo Water Week in October 2018. Also, a draft MoU between ENCID and each of Sudanese, Russian and Italian NCs is also under discussion. Chair encouraged all African NC's to take actions towards the bilateral cooperation to promote exchange of knowledge, experiences and information. Chair also informed that he approached Dr Eman Elsayed, Chairman of Planning Sector, and MWRI for collaboration of India Water Week and Cairo Water Week, which is likely to be discussed further during the 2nd Cairo Water.

AFRWG Minutes Item 3: Progress on Position paper on Green Revolution in Africa

10. During Saskatoon meeting, WG deliberated on the preparation of the Position Paper on Green Revolution in Africa and reviewed the table of contents and circulated the same to different NCs. WG noted the slow progress made so far towards the first draft of the position paper.

11. The Chair informed Members that position paper on Green Revolution in Africa is under discussion for long time and emphasized the importance of finalizing the paper by the 5th African Regional Conference in March 2020. After deliberations, it was agreed the following towards finalization of position paper:

(a) A team consisting of following members be formed: Dr. Wahba (AFRWG-Chair), Prof. Sylvester (AFRWG-Vice Chair), Prof. Bartali (Vice Chair of ANAFIDE), Dr. Elijah Aderibigbe (Chair- NINCID) and Eng Amali (Secretary-AFRWG or other African YP's)

(b) Eng. Amali or other African YP's will be the focal point of the team, to start for the preparation of the draft layout of the paper by mid of October 2019 and circulate to the team

(c) End of October 2019 to have all feedback from the team and the team to agree about the tasks for final preparation

(d) End of December 2019, to have the first draft of the paper

(e) End of January 2020 to have the final version of the paper to be ready to be presented in 5TH African Regional Conference

12. In fact, an action was taken by the Chair after the 2nd AfYWP Forum, a team was selected - 3 YPs with Dr. Wahba and they are working now for this important paper. It will be shared with all the above team after finishing.

AFRWG Minutes Item 4: Progress on implementation of the action program for Africa - Strategy for capacity building in Africa (Training Needs Assessment) Report

13. The group noted very poor response to the Training Needs Assessment (TNA) questionnaire and requested NCs to make possible inputs to have a clear reflection about activities taking place and need to be undertaken within the African Region. The group was of the view that the initiative should not be seen as once-off process but as an on-going activity of continuous monitoring. Due to the sparse distribution of received submissions and gaps in the information, the group highlighted on the need to have more applicants covered within the TNA to have an analysis that reflect the situation in the entire African region.

14. The Chair explained that in view of the importance of the capacity building (CB) program for AfYPs, it was decided to analyse information received so far and update information as and when further information is received. Accordingly, the final report of TNA was prepared and sent to ICID Central Office for circulation among African NCs. This report was circulated to all African NC's and also to some international organizations for financial support for capacity building progrmme of AfYP's. During the meeting, Chair Dr. Wahba made a presentation on the final report of TNA.

AFRWG Minutes Item 5: Exchange of information, knowledge and experience (progress in activating Young professional working group at Africa NC's)

15. After discussion, the Chair provided further updates at the meeting on the progress in activating African National Committees:

16. Cooperation between African NC's

(a) Signing MOU between Morocco National Committee on Irrigation and Drainage (ANAFIDE) and Egyptian National Committee on Irrigation and Drainage (ENCID) still under discussion.

(b) Chair encourages all African NC's to take actions towards the bilateral cooperation to exchange knowledge, experiences and information.

17. 1st African Young Water Professional Forum

(a) The chair informed about the achievements of organizing the First African Young Water Professional Forum under the platform of 1st Cairo Water Week in October 2018. At the end of the forum, the African Young Water Professional Forum was launched as a platform for African Young Professional, which is having more than 700 members at present. The chair made presentation about the report during the meeting.

18. Progress in activating African NC's:

(a) Chair of the AFRWG has carried out many activities towards encouraging the establishment of YP- WG at African NC's level and the National Committee of Egypt, Morocco, Nigeria and Sudan have already taken action and the WG has been established, a group on WhatsApp and at e-mail have already been active and the dissemination of publication, bulletin, news update are circulating to the members of the YP –WG

(b) The chair of the AFRWG encourages all other African NC's to follow the same actions.

(c) Also, through the Af-YWP Forum many information's, documents are exchanging among all African Young Professionals.

AFRWG Minutes Item 6: Updates on Regional Irrigation Associations- SARIA, NARAID, ARID-RAID by the Chair or Representative

19. The group noted that towards achieving ICID's vision in Africa, ICID has drawn up a number of initiatives for African region in collaboration with regional associations like Southern Africa Regional Irrigation Association (SARIA), Alliance for Green Revolution (AGRA), Regional Association on Irrigation and Drainage for West and Central Africa (RAID-ARID) and North African Regional Association for Irrigation and Drainage (NARAID), which is under establishment, such as Capacity Development Program and Training Workshops for Young Professionals from the Region and encouraging bilateral cooperation between the NCs of ICID in the region by way of formal MoUs.

20. The Chair Dr. Wahba mentioned that during last year, he tried many times for the establishment of NARAID, and unfortunately it was very difficult due to lack of financial support and based on the success of Af-YWP Forum, the chair asked the members to support this forum as it is for all Africa which can cover most of the proposed mandate of NARAID.

21. So, the group suggested to stop any actions towards NARAID and to concentrate on activities of Af-YWP Forum. A short summary on the activities of SARIA was made by Prof. Sylvester.

AFRWG Minutes Item 7: First African Young Water Professional's Forum (Af-YWPF) in October 2018 in Cairo, Egypt and Establishment of AF-lYPeF - Feedback

22. The Chair Dr. Wahba made a presentation about the final report of the First African Young Water Professionals Forum. The Ministry of Water Resources and Irrigation of Egypt in collaboration with other ministries and international partners organized the First Cairo Water Week (1st CWW) from 14 -18 October 2018. During the 1st CWW, AFRWG of ICID, seized the occasion to establish the African Young Water Professionals Forum (Af-YWPF) and organized its first meeting to discuss the forum's objectives and mandate. The three-day Training Workshop of the forum brought together 24 African future water leaders from 12 African countries including Sudan, Morocco, Ethiopia, Kenya, Mauretania, South Africa, Uganda, Nigeria, Malawi, Tanzania, Ghana and Egypt.

23. The workshop included opening and closing sessions, four training workshops and four keynotes speeches given by international experts, with hopes to challenge and inspire young water professionals within the continent about leadership in the research and innovative space and motivate their action.

24. The training workshop exposed participants to important issues such as Water Food Energy Nexus, value engineering, current trends, technologies and research gaps in water resources, irrigation and drainage as well as simulation modelling in irrigation and drainage.

25. It was a good opportunity for YP's to showcase their knowledge and broaden their perspective to sustainable water management in an international setting, learn from shared experiences to broaden their minds and thinking of new and experienced water professionals.

26. The forum ended with the establishment of Af-YWP Forum, the approval of the forum mandate, selection of the coordinators for the Af-YWP Forum for the years 2018-2020 and concluded with the following recommendations:

(a) Continually expose African Young Water Professional to ICID's aims, objectives, role and activities;
(b) Future Training Workshops will draw from gaps in the TNA and discussions held during this training;
(c) Foster efforts to make training workshops more interactive and give participants the opportunity to learn from each other;
(d) Collaborate, build and establish cooperation with institutions, organizations and agencies whose visions tallies with our objectives;
(e) Discussions and various forum activities shall serve the African Challenges as well as AFRWG-ICID to ensure effectiveness of the Forum.

27. The forum was supported by

(a) Ministry of Water Resources and Irrigation of Egypt (MWRI)
(b) International Commission on Irrigation (ICID)
(c) Korea Rural Community (KRC)
(d) International Water Management Institute (IWMI)
(e) Global Water Partnership-Mediterranean (GWP-MED)
(f) The Nile Basin Capacity Building Networks (NBCBN)
(g) National Committees on Irrigation and Drainage of Morocco, Italy and South Africa.

AFRWG Minutes Item 8: 5th African Regional Conference on Irrigation and Drainage, 16-19 March 2020, Marrakesh, Morocco

28. During the meeting, Prof. Bartali, Vice Chair of ANAFIDE made a presentation about the Conference and a video also was showed to the member of the group. The Moroccan National Committee of ICID (ANAFIDE) will be organizing the 5th African Regional Conference on Irrigation and Drainage (ARCID) from 16-19 March 2020 in Marrakesh, Morocco to exchange experiences about lessons drawn, innovative technologies and irrigation development strategies to reduce deleterious impacts of climate change on African agriculture. The 5th ARC will focus on the theme "Sustainable Management of Irrigation for Improved Resilience of Agriculture in Africa" considering the need to address the aforementioned challenges to improve resilience in agriculture productivity for ensuring food security for the present and future generations in the African region. The conference will bring together a wide range of participants, including policy decision makers, professionals, academicians and researchers from Africa and beyond working in irrigation and drainage or closely related fields and will provide an opportunity to revisit Moroccan achievements in modernized irrigated agriculture and appreciate historical attractive places in the country. ANAFIDE invites all prospective delegates to attend and contribute to this important regional conference. During Mexico meeting, it was agreed that a training programme for YP's from African region will also be organized preceding 5AfRC. Members are requested to submit the abstract(s) through email at bartali.h@gmail.com, anafide.ma@gmail.com; or by visiting the website http://5arcid.ma/login/.

AFRWG Minutes Item 9: Progress for the proposed third node for IRPID for African region

29. ICID Central Office had requested Egyptian National Committee (ENCID) to provide further progress for hosting the Regional Node of International Research Program for Irrigation and Drainage (IRPID) for North African countries. The Chair updated the group with the current situation of the node, as some actions were taken by ENCID but it takes more time, so, it was agreed between ENCID and ANAFIDE to coordinate the node from ANAFIDE jointly between Italian, Morocco, Egyptian and Sudanese NC's and work also for the common areas for other African NC's.

AFRWG Minutes Item 10: Af-YWPeF - Program of 2019 and future activities

30. The objective of the African Young Water Professional's e-Forum (Af-YWPeF) is to bring together Africa's future leaders from the private sector, research and government institutions around the central theme of water

conservation for sustainable development. The Chair Dr. Wahba shared with the group the future activities of the AFRWG and The Af-YWPeF which are as follows:

(a) The preparation of the 5th African Regional Conference and organizing three-day training workshops back to back to the conference and also the first International African Young Professional Workshop during the conference.
(b) Webinar program for AfYWP-Forum 2019 and planned to have two lectures before the end of the year.
(c) E-discussion program also will continue till the end of the year.
(d) Contacting international organizations for financial support for capacity building of Af-YP's

31. Chair VPH Dr Wahba has initiated the future cooperation for the capacity building for the African YP's especially for the North African countries. In this respect, Chair Dr. Wahba has approached international organizations for cooperation with them and the topics for training programs or training workshops will be part of the global initiatives like SDG's, climate change adaptation and mitigation, drought and flood management. In response, Dr. Tarek Sadek, First Economic Affairs Officer (Water Resources and Climate Change), Water Resources Section Sustainable Development Policies Division (SDPD), Economic and Social Commission for Western Asia (ESCWA) of United Nations (UN) has kindly agreed for the cooperation between ESCWA, AFRWG - ICID and ICID and to have a MOU for this kind of cooperation. Dr Tarek Sadek has informed that they are ready to jointly organize with ICID and AFRWG the coming training workshop for North African countries on the topics of mutual interest and proposed to conduct this training in 2019 in Beirut or any North African country, preferably back to back with one of the regional events.

32. The 2nd Af-YWP Forum is being organized from 21-23 October 2019 under the platform of 2nd Cairo Water week 20-24 October 2019 and the chair briefed the group about the negotiation undertaken with ESCWA, Chinese companies, ICID and the Islamic Development Bank for supporting this important event.

33. VPH Dr Mohamed Wahba has informed about the proposal of a training course for African young professionals tiled "Vocational Training Program of Canal Protection & Economy Developing" in 2019 in cooperation with World Historic and Cultural Canal Cities Cooperation Organization (WCCO), Yangzhou Polytechnic College (YPC), and ICID. Dr Wahba also informed that the fund will be from the Chinese side and proposed to organize training once a year. Chair Dr Wahba mentioned that it is still under discussion and the main challenge is to seek fund for this training programme.

AFRWG Minutes Item 11: Any other business - General recommendation

34. At the end of the meeting, the Chair encourages:

(a) All African NC's members to participate in the Webinar/ Web-based seminars.
(b) All YP's to provide the AFRWG with the topics needed to be covered by the Experts and also to be covered in the e-discussion.
(c) All African NC's to establish YP working group at their national level.
(d) All African NC's members to nominate new members in the AFRWG (one member and one observer, also YP's are welcome). The support and action of ICID-CO is highly appreciated
(e) To take in consideration the French translation for French speaking Africans.
(f) All Af-YP's to participate in the event of the AFRWG.
(g) Data base of the members of AfYWP-Forum could be very essential for the future

35. The Forum is opened for all African experts to join to encourage the interactions, exchange of knowledge and experiences to YP's, but all scholarships will be for YP's only. As requested by the Nigerian National Committee the topic: standard of water quality for irrigation could be included in the E-discussion and webinar programs. A follow up from the AFRWG- ICID to the YP's in disseminating the output of activities at their national levels is required. Prof. Kang from the Chinese academy of science expressed his willingness to give any support for the African countries in the field of advanced micro irrigation technologies.

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Annex [Appendix IV, Item 2]

ROAD MAP TO ICID VISION 2030 – ACTIVITIES OF WORK BODIES

Goals/ Strategies	Activities	Outcomes/ Outputs	Milestone for Year 2017	Milestone for Year 2018	Milestone for Year 2019	Milestone for Year 2020	Milestone for Year 2021
Goal B: Be a Catalyst for Change in Policies and Practices							
B1. Strategy: Supporting Development of Appropriate Policies	1.15 Position Paper on Green Revolution in Africa	Position paper	Prepare the draft paper	Finalise the paper			
GOAL C: Facilitate exchange of information, knowledge and technology							
C3. Strategy: Promoting Regional Cooperation	3.4 Activate or Establish Regional/sub-regional WGs	Regional WGs	Collaboration with AfYWP-Forum				
Goal F: Facilitate capacity development							
F2. Strategy: Support Capacity Development Activities of Member Countries	2.4 Strategy for capacity building in Africa	Strategy/ Policy	Identify new themes and revise the strategy	Update the strategy			

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

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MINUTES OF THE PREPARATORY MEETING FOR ESTABLISHING AMERICAN REGIONAL WORKING GROUP (AMRWG)

5 September 2019, 09.00-11.00 hours
Bali, Indonesia

Presented by the Chairman

Summary of the Proceedings of the Meeting:

In absence of Interim Chair and/or representative members, the meeting could not be held at Bali.
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MINUTES OF THE 26TH MEETING OF THE ASIAN REGIONAL WORKING GROUP (ASRWG)

05 September 2019, 09:00-11:00 hours (Session I) and 11:15-13:15 hours (Session II)
Bali, Indonesia

Presented by the Chairman

Year of Establishment: 1996

Mandate: The general objective of the Asian Regional Working Group is to focus on common topics and issues and to enhance the transfer of appropriate technology in irrigation and drainage to and from the Asian Region. The mission of ASRWG is to encourage membership and to coordinate activities in the region.

Members Present: (1) VPH Karim Shiati, Chair (Iran); (2) VP Naoki Hayashida, Vice Chair (Japan); (3) Dr. Vijay K. Labhsetwar (India); (4) VPH Dr. Ding Kunlun represented Mr. Wang Aiguo (China); (5) Dr. Mochammad Amron (Indonesia); (6) Ir. Hj. Ahmad bin Darus (Malaysia); (7) Dr. (Ms.) Mu Mu Than (Myanmar); (8) Prof. (Ms.) Kyung Sook Choi (Korea, Rep.of); (9) Mr. Arthorn Suttigarn (Thailand); and (10) Dr. Ray-Shyan Wu (Chinese Taipei).

Observers: (1) VPH Hafied Gany (Indonesia); (2) VPH Shinsuke Ota (Japan); (3) Dr. Tsugihiro Watanabe (Japan); (4) Rizal Siregar (Indonesia); (5) Dr. Yohei Sato (Japan); (6) Naoko Koshiyama (Japan); (7) Sang Hee Park (Korea, Rep.of); (8) Abin Lee (Koea, Rep.of); (9) Dr. Wen-Pin Shu (Chinese Taipei); (10) Kuang-Ming Chuang (Chinese Taipei); (11) Yi-An Hsieh (Chinese Taipei).

Website: http://asrwg.icidonline.org/

ASRWG Minutes Item 1: Action taken report by Chair

1. At the onset, the Chair VPH Karim Shiati welcomed all the members and briefed on the latest status on the action point emerging from the minutes of the previous meeting of the WG held at Saskatoon in 2018. Chair informed about the wonderful technical report of ASRWG-WT entitled “Sustainable agricultural growth for the rural development in Asia” by Prof. Kyung Sook Choi and Prof. Vijay K. Labhsetwar.

2. Regarding the use of virtual meeting by WebEx platform, the Chairman requested WG members to enhance the issue and participate in the upcoming WebEx meetings, Webinars and e-discussions.

3. The WG reviewed the membership nomination of Eng. Ahmad bin Darus (Malaysia) and Dr. Tsugihiro Watanabe (Japan) and were accepted as member by the WG. The Chinese Taipei Committee (CTCID) introduced Dr. Wen-Pin Shu as new nomination for the WG. During the meeting, Dr. Shu apprised the WG about his experience and the group accepted him as new member of WG. In October 2019, the Irrigation Australia Limited (IAL) has nominated Ir. Felipe Dantas (Australia) for the membership of the WG. In consultation with the Chair, the nomination of Ir. Felipe Dantas was accepted as ‘Provisional Member’ until the next meeting. Membership status is given in **Annex 4 (page 27)**.

ASRWG Minutes Item 2: Road Map to ICID Vision 2030 – Status of activities in Asian region

4. The WG re-reviewed the Action Plan on the Road Map to ICID Vision 2030 that was modified in the WG meeting in Saskatoon in 2018 (refer **Annex**). Chair informed that the activity of ASRWG is to contribute to 3 goals out of 6 organizational goals of ICID vision 2030 which includes:

(a) To promote the technical support program (TSP) among Asian NCs
(b) The international forum in 2019
(c) Collaboration between PAWEES and ASRWG

ASRWG Minutes Item 3: Linkages with Regional and Transnational Organizations for Cooperation

5. The group noted that as a follow-up of Memorandum of Understanding (MoU) between CTCID-KCID and CTCID-INACID in May 2019, CTCID would sign another MoU with MANCID. The group also noted that CTCID will organize an international forum with PNC-ICID and THAICID in October 2019. The WG appreciated the CTCID efforts and requested to inform the WG about their events.

ASRWG Minutes Item 4: Developing cooperative arrangements with International Society of Paddy and Water Environment Engineering (PAWEES) and International Network of Water Environment and Paddy Fields (INWEPF)

6. The group discussed about the cooperation and noted that ASRWG and PAWEES/INWEPF is the main activity within the ASRWG agenda since 2004. The "ICID-PAWEES-INWEPF collaborative workshop" was organized in NARA Conference by the JNC-ICID in close cooperation with ASRWG from 20-22 November 2018. The main aim of the conference was to "contribute further development of sustainable agriculture in Asia" the participants, discussed on Irrigation and drainage in Asia to achieve the SDGs`. Chairman VPH Dr. Shiati, VP Hayashida, Dr. Maher Salman, from FAO and VP Marco Arcieri attended the above event and made an interesting presentation. It has been decided that the next PAWEES/INWEPF joint international conference will be held in South Korea, Seoul from 5-7 November 2019. It was proposed that ASRWG will actively contribute to this event. VP Hayashida apprises the WG about this event. Chair encouraged all members to participate in the conference.

ASRWG Minutes Item 5: Capacity development programme for Young Professionals from Asian region, April 2019, Republic of Korea

7. ICID in association with KCID-CNCID arranged a 5-day conference entitled "International young professionals training programme" on the theme "Climate Resilient Smart Irrigation Systems" from 17 countries in April 2019 in Republic of South Korea. The training program was followed by an international expert consultation workshop on "Irrigation Technology to Mitigate Climate Change". The KCID and INCID members appraised the WG about the event.

ASRWG Minutes Item 6: The 8th Asia Regional Conference (ARC) on the theme "Irrigation in Support of an Evergreen Revolution was successfully organized and succeeded on May 2018 Kathmandu, Nepal.

8. Mr. Bashu Dev Lohanee apprised the WG about the organization of successful conference wherein about 250 delegates from ICID member countries and more than 800 participants were attended. The major point was the use of young professionals for organizing young professionals training program during the event. The group thanked to NENCID for successfully implementing the event.

ASRWG Minutes Item 7: Supporting Event 6 (SE 6) by JNCID with WIF3

9. During the Third World Irrigation Forum (WIF3), ASRWG in cooperation with JNCID organized the Supporting Event entitled "Development of water, food and nutrition in Asia" on 2 September 2019. Mr Mitsuo Ishijima apprised the WG about the event.

ASRWG Minutes Item 8: Any other business

10. During the meeting, it was decided that the WG would organize internal workshop on every occasion of ASRWG meeting starting from the next ICID meeting in Sydney, Australia in 2020. First half of the WG meeting will be used for the discussion of the agenda items. Second half of the WG meeting will be used for the internal workshop. Two to three reports will be presented about the specific topic chosen in advance. The specific topic for the first internal workshop in Sydney will be decided by / through web-meeting among WG members.

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Annex [Appendix VI, Item 2]

ROAD MAP TO ICID VISION 2030 – ACTIVITIES OF WORK BODIES

Goals/ Strategies	Activities	Outcomes/ Outputs	Milestone for Year 2017	Milestone for Year 2018	Milestone for Year 2019	Milestone for Year 2020	Milestone for Year 2021
Goal C: Facilitate exchange of information, knowledge and technology							
C3. Strategy: Promoting Regional Cooperation	3.5 Enhance Linkages between National Committees for International Cooperation	Technical Report					
	3.6 Broaden relationship and mutual understanding and cooperation between NCs from developing countries and developed countries	Collaboration/ MoU	Exchange visits/ training between TUCID and IRNCID MoU between IRNCID and KCID				
	3.7 International conference/ workshop/ seminar	Compilation of proceedings		8th Asian Regional Conference, May 2018, Nepal	International forum in Oct 2019	Workshop	
C4. Strategy: Compile, Collate and Share Knowledge and Experiences	4.4 Special joint Publication on Agricultural Water Management for Sustainable Rural Development	Side Event with AARDO	Special Issue of AARDO Journal				
	4.21 Report on "Contribution of Agricultural Water to the Rural Development in Asia"	Technical Report	Publish the Technical Report based on workshops/ Side Event	Formal release of the Report at 8th ARC	Promote the Technical Support Program (TSP) among Asia NC's		
GOAL D: Enable Cross Disciplinary and Inter-Sectoral Engagement							
D3. Strategy: Facilitate Development of Inter-sectoral Platforms Involving NCs	3.1 Developing inter-sectoral engagement			Collaboration between PAWEES and ASRWG	Collaboration between PAWEES and ASRWG		

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

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MINUTES FOR THE 25TH MEETING OF THE EUROPEAN REGIONAL WORKING GROUP (ERWG)

05 September 2019, 09:00-11:00 hours (Session-I)
05 September 2019,11:15-13:15 hours (Session-II)
Bali, Indonesia

Presented by the Chairman

Year of Establishment: 1995

Mandate: The mission of ERWG is to promote awareness about critical ICID relevant water issues at all levels in Europe and to pay special attention to the environmentally sustainable water management in Europe.

Members Present: (1) Vice President Hon. Ian Makin (UK), Chairman; (2) Mr. Olli-Matti Verta (Finland), Secretary; (3) VPH Laszlo Hayde (Hungary); and (3) Dr. (Mrs.) Irena G. Bondarik (Russia).

Observers: (i) PH Bart Schultz (The Netherlands); (ii) Prof. Dr.-Ing. Klaus Röttcher (Germany); (iii) Dr. Rollin Dominique (France); and (iv) Mr. Vincent Bernard (France).

Website: http://erwg.icidonline.org/

ERWG Minutes Item 1: Action Taken Report by Chair

1. Vice President Hon. Ian Makin (UK), Chair of the WG presented a report on the actions taken on the decisions and proposals of the European Regional Working Group (ERWG) at its 24th meeting held at Saskatoon, Canada in August 2018.

2. During the meeting, WG Chair VPH Ian Makin reported that he has retired from International Water Management Institute (IWMI) and returned to UK in April 2019. Now, he is able to increase his attention in the ERWG matters. Specifically, this has enabled increased involvement with the Irrigation and Water Forum (IWF/ICID.UK) and a more direct exposure to the apparent disconnect of members interests from those of the broader ICID membership outside Europe (*see discussion in Agenda item 1.1*).

3. No new nominations for the membership of the ERWG were received from NCs during the year. Present membership status of ERWG is at **Annex 4 (page 27).**

ERWG Minutes Item 1.1: Strengthening the membership in Europe

4. The Working Group discussed the current strengths and concerns among the various NCs represented at the meeting. In addition, the strong efforts by Vice President Dr. Irene G. Bondarik (Russia) and Dr. Marco Arcieri (Italy) to encourage currently inactive member countries and potential new members were appreciated. Encouraging signals have been received from Latvia, Lithuania, Serbia and Estonia and VP Bondarik will continue to work with her contacts in these countries to further strengthen their participation in ICID activities. Prof. Dr.-Ing. Klaus Röttcher (Germany) reported that a new Association for Sustainable Irrigation has been established representing about 40% of the irrigated area in Germany. However, the membership is not currently able to meet the international fees to be a member of ICID. Dr. Dominique Rollin (France) reported that AFEID had discussed continued participation in ICID and confirmed the commitment to 2021. WG Chair reported that similar discussions are emerging in the Irrigation and Water Forum (IWF/ICID.UK) as the majority of IWF members are not active stakeholders in the international ICID program and question the benefit of membership.

5. The Group discussed and agreed that concerted efforts are required to demonstrate the value of membership of ICID to the European members and other candidate countries. Proposed activities are summarized in subsequent agenda items.

ERWG Minutes Item 2: Road Map to ICID Vision 2030 –Status of Activities relevant to European Region

6. The WG reviewed the Action Plan (Road Map to ICID Vision 2030) and reported to PCSO the current status and proposed actions on the following three activities which were agreed:

(1) Strategy B1: Supporting Development of Appropriate Policies: The review of relevant policies in Europe is delayed. However, President Hon Bart Schultz (The Netherlands) confirmed that he will prepare a summary of the relevant policy documents, noting these are all in the public domain. VPH Lazlo Hayde (Hungary) requested the RWG to support the request from Hungary to circulate a questionnaire among members on national legislation and regulations to assist the Govt. of Hungary in the development of an updated water policy. Dr. Bernard Vincent (France) observed that there are growing concerns about the policy and regulations on agricultural drainage and

environmental concerns in specific agricultural areas. Consideration will be given to organizing a consultation among European countries to discuss these policies and impacts on agricultural drainage and farm operations. The consultation may be WebEx /Virtual meeting during Q2/Q3 2020. The ERWG supported the proposed questionnaire. VPH Hayde will coordinate with NC of Hungary to update and circulate the questionnaire to member countries.

(2) Strategy C3: Promoting Regional Cooperation: The Baltic States Drainage workshop is held annually. VP Bondarik reported on the 2019 event held in May 2019 at Lithuania, in which 8 countries participated. It was noted that the next event will be held in 2020 at Latvia.

7. VP Bondarik informed the members of the RWG that a conference to celebrate 98 years of research will be held from 24-26 November 2019 at Moscow, Russia. She also reported that President ICID Er. Felix B. Reinder will also be invited to the Agricultural Exhibition in October 2019.

8. Dr. Dominique Rollin confirmed that a workshop on Water Saving in Irrigation will be held from 13-14 November 2019 at Montpellier, France. In this regard, the participation is restricted to about 200 with free registration. However, the registration of the participation is essential. Dr Dominique requested Members to visit Conference website <https://watersaving.sciencesconf.org> for more information.

9. The United Nations Educational, Scientific and Cultural Organization – International Hydrological Programme (UNESCO-IHP) will hold a conference on Drought from 11-15 December 2019 at Paris, France. It was noted that the Association Française pour l'Etude des Irrigations et du Drainage (AFEID), French National Committee of ICID will be involved during the conference.

(3) Strategy F1: Enhancing Institutional Capacity Development in Member Countries: Prof. Dr.-Ing. Klaus Röttcher (Germany) reported that a new e-learning course on Solar Irrigation has been developed and implemented. This is available in English, with preparation of French and German language versions planned. He requested members to visit "Solar Powered Irrigation System" at www.wasser-suderburg.de/pages/page/spis for more information.

ERWG Minutes Item 3: Seminar/Session of the WG related to Agricultural Water Management in Europe

10. The RWG discussed seminars/sessions held/to be held by member countries relevant to Agricultural Water Management in Europe. RWG specifically noted following events:

11. AFEID will organize a two-day Conference on 'Water savings achieved with changes in irrigation equipment or practices' from 13-14 November 2019 at Montpellier, France. Dr. Dominique Rollin, Secretary General of AFEID, informed the members that registration is limited to about 200 but is now open and free, see the conference website at <https://watersaving.sciencesconf.org>

12. The International Society for Horticultural Science (ISHS) and the University of Basilicata (DiCEM Department) in association with Italian NC (ITAL-ICID) organized the "IX International Symposium on Irrigation of Horticultural Crops" at Matera, Italy during 17-20 June 2019. VP Dr Marco Arcieri (Italy) confirmed the meeting was successfully held.

ERWG Minutes Item 4: Review of policy issues impacting irrigation and drainage sector

13. It was discussed and reported under agenda item under Action plan (*refer item 2 above*).

ERWG Minutes Item 5: Links with regional and trans-national organizations for co-operation

14. The WG discussed the need to strengthen linkages among relevant organizations in each member country and also across the European region. Consideration of how to approach this will be discussed during a proposed WebEx meeting in early 2020.

ERWG Minutes Item 6: Activities of Focus Groups of ERWG

15. During the meeting, the focus groups' activities were discussed briefly, and it was noted that each focus group is due to meet after the ERWG meeting.

ERWG Minutes Item 7: Creation of a Task Force on Legislative Framework on Agricultural Drought Mitigation for European Regional (TF-DMD)

16. During the meeting, the creation of a Task Force on Legislative Framework on Agricultural Drought Mitigation for European Regional (TF-DMD) was discussed, but members were not aware of the details. WG Chair agreed to discuss this issue with the Dr Marco/ICID CO to obtain more details/information and report to ERWG.

ERWG Minutes Item 8: Dissemination of activities of WG

ERWG Agenda Item 8.1: Website of the Group

17. No action was reported on the current web site. However, efforts will be made in 2019/20 to invigorate the website and to include links to the various initiatives discussed during the WG meeting.

ERWG Agenda Item 8.2: Webinar / Web-based Seminar

18. The Solar Irrigation e-learning website (www.wasser-suderburg.de/pages/page/spis) will be linked to the ERWG website and publicized among regional members and more broadly to ICID members.

19. VPH Makin (UK) reported that the IWF/ICID.UK hold two technical meetings, annually. The Annual Gerald Lacey Lecture is broadcast live through web streaming, visit https://iwaterforum.org.uk/events/events/technical-meetings for more information.

20. The RWG proposed to hold a WebEx/Virtual meeting with all European NC about 6 weeks after WIF-3 to inform the NCs of their activities at WIF. ICID CO will be requested to assist in contacting the NCs in Europe to organize this WebEx meeting. The RWG also requested ICID CO to organize a Doodle Poll for a WebEx meeting to be held in February 2020 for the members of the ERWG to follow-up on proposed activities described, as above.

ERWG Minutes Item 9: Any other business

21. Dr. Dominique Rollin (France), Secretary General, AFEID reported that he will coordinate between ERWG and the TF-WWF9.

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MINUTES OF THE 30TH MEETING OF THE COMMITTEE ON CONGRESSES/CONFERENCES (C-CONGR)

04 September 2019, 11:15-13:15 hours (Session-I)
04 September 2019, 14:00-16:00 hours (Session-II)
Bali, Indonesia

Presented by the Chairman

Year of Establishment: 1990

Mandate: The mandate of the Committee is:

(i) To recommend general improvement in conduct of WIFs, Congresses, Conferences and other ICID events;
(ii) Representatives/Organizers of the ICID events to present a summary report on preparations made for the said events;
(iii) Share the lessons learned / difficulties faced in organizing the events; and
(iv) Make proposals for the smooth conduct of the ICID events.

Members Present: (1) Mr. Bryan Ward, Chairman (Australia, 2017); (2) Dr. Warren Helgason (CANCID) represented by VPH Laurie C. Tollefson; (3) VPH Ding Kunlun, Chinese representative; (4) Pr El Houssine Bartali, Moroccan representative; (5) Er. B.A. Chivate, Director (Tech.), ICID Central Office; and (6) Dr. Vijay K Labhsetwar, ICID CO.

Observers: (i) Ms. Chris Delphin (Australia); (ii) Dr. Park, Eunseo (Korea); (iii) Ir. Sidik Permana (Indonesia); (iv) Mr. K.P. Bakshi (MWRRA, India); (v) Dr. Lihui Gao (China); (vi) Dr. Ruoxi Li (China); and (vii) Ir. Jang Liu (China).

Website: http://c-congr.icidonline.org/

C-CONGR Minutes Item 1: Action taken report by Chairman

1. Mr. Bryan Ward (Australia), Chairman of the C-CONGR presented a report on actions taken on the decisions made since the last meeting of the Committee at Saskatoon (201 8), Canada. No interim meetings were held since Canada meeting.

C-CONGR Minutes Item 2: Membership of the Committee

2. The Chairman observed that there were no representatives from Mexico, India, Indonesia and Nepal. VPH Laurie C. Tollefson, representative from CANCID; VPH Dr. Ding Kunlun, representative and Deputy Secretary General of CNCID; Pr. El Houssine Bartali, representative from ANAFIDE; and Mr. M.Z. Fatah, representative from INACID were present. Membership status is given in **Annex 4 (page 27)**.

C-CONGR Minutes Item 3: Overview of 3rd WIF & 70th IEC meeting, 1-7 September 2019 at Bali, Indonesia

3. Mr. M.Z. Fatah, INACID representative reported on the following lessons learned:

(a) He acknowledged that some website security issues were an issue affecting the registration process experienced by some delegates.
(b) Bank account – Swift Code issues with the bank to be resolved for further events.
(c) Shortfall in providing seminar packs due to understating the numbers attending.
(d) Preparation 3 years in advance a recommendation for future events.

4. Mr. Fatah in summary said that they were pleased to announce the numbers attending at 1600, with 690 international delegates which was more than they expected.

5. Mr. Bryan Ward congratulated Mr. Fatah and the INACID Committee on the excellence of the event overall. The Chairman advised that Indonesia would be invited to make a full report at the C-CONGR meeting in Sydney in September 2020, including the financial outcomes from WIF3.

C-CONGR Minutes Item 4: Feedback from the organizers

C-CONGR Minutes Item 4.1: Feedback from International Conference and 69th IEC in August 2018 at Saskatoon, Canada

6. VPH Laurie Tollefson provided feedback from the Canadian event with his observations including:

(a) Ensuring visa registration issues were resolved early – delegates need to start the process at least three months in advance, especially from countries like Iran, Afghanistan etc.
(b) Registrations not taken through to payment were significant possibly due to visa issues
(c) Preparations for the event to commence three or more years prior utilising the services of an event's organiser.

C-CONGR Minutes Item 4.2: Feedback from 23rd ICID Congress and 68th IEC, Mexico City, Mexico in October 2017

7. There was no representative to apprise the meeting of the Mexican event, however, it was noted that this had been reported on in the Minutes of the 69th IEC Meeting - C-CONGR on 14 August 2018. The key point noted was that Mexico did not meet the 35% ICID level and made a special contribution instead.

C-CONGR Minutes Item 4.3: Feedback from 8th Asian Regional Conference, Kathmandu, Nepal in May 2018

8. There were no representative present to apprise the meeting of the event in Nepal, however, it was noted that this event had been reported on the Minutes of the 69th IEC Meeting - C-CONGR on 14 August 2018. The key point taken was that the event was very successful with positive feedback.

C-CONGR Minutes Item 4.4: Feedback from 9th International Micro Irrigation Conference, 16-18 January 2019, Aurangabad, Maharashtra State, India

9. There were no representative present to apprise the meeting of the event.

C-CONGR Minutes Item 5: Preparations for the future events for the next 3 years

C-CONGR Minutes Item 5.1: 5th African Regional Conference on Irrigation and Drainage, 16-19 March 2020 at Marrakesh, Morocco

10. Pr El Houssine Bartali, representative from Moroccan National Committee (ANAFIDE) updated the Committee on the upcoming 5th African Regional Conference on Irrigation and Drainage on the theme 'Sustainable Management of Irrigation for Improved Resilience of Agriculture in Africa' and subtopics of the Conference to be held from 16-19 March 2020 at Marrakesh, Morocco. The second announcement of the Conference has been circulated to all stakeholders of the ICID. The website of the Conference is available at Website: http://www.anafide.net/ and http://5arcid.ma

C-CONGR Minutes Item 5.2: 24th ICID Congress and 71st IEC Meeting, 22-28 September 2020, Sydney, Australia

11. Mr. Bryan Ward presented a PowerPoint presentation outlining the Committee's preparations for the 24th ICID Congress and 21st IEC Meeting to be held from 22-28 September 2020 at Sydney, Australia. He provided a summary of the actions taken by the committee and advised that registrations were open immediately after the Bali event and the 'Call for Papers' website would be available when a link to the software was made available from ICID Central office.

C-CONGR Minutes Item 5.3: 10th International Micro Irrigation Conference (MIC) and 72nd IEC Meeting, 26th September to 2nd October 2021 at Agadir, Morocco

12. Pr El Houssine Bartali, representative from Moroccan National Committee (ANAFIDE) presented a video showcasing the conference centre, accommodations and sights of Morocco for the delegates.

13. Pr Bartali confirmed that the ANAFIDE had contacted the Organizing Committee for the 9th International Micro Irrigation Conference in India to discuss lessons learned and suggestions to improve the next event.

14. The presentation included estimated attendance and registration fees. Pr Bartali confirmed their acceptance of the Letter of Agreement and the payment of 15% of registrations to ICID as per the LoA.

15. The Chairman thanked Pr Bartali for his excellent presentation.

C-CONGR Minutes Item 5.4: Proposal for Future Event: 4th World Irrigation Forum (WIF4) and 73rd IEC Meeting in 2022, Being China

16. VPH Dr. Ding Kunlun, Deputy Secretary General Chinese National Committee of ICID (CNCID) and his colleague presented a video and PowerPoint presentation on the CNCID Committee's proposal to host the 4th World Irrigation Forum (WIF4) and 73rd IEC Meeting in 2022. VPH Ding Kunlun's colleague provided a summary of the excellent facilities, sightseeing and activities available for delegates in Beijing. The following key points were included :

(a) The CNCID committee had budgeted for 1000 delegates and Dr. Vijay K Labhsetwar from ICID CO suggested this number was quite conservative in his view and a more likely number, he suggested could be around 1400.

(b) A question on the price variance for international delegates compared to local delegates was raised and VPH Ding Kunlun advised this was quite a preliminary budget and that the pricing structure can be reviewed.

(c) He also confirmed that countries on the least developed countries (LDC) list could also be offered a discount either on the registration fee of offer of financial support and this was still to be decided.

(d) VPH Dr Ding confirmed the acceptance of the LoA and the payment of 35% of registrations to ICID as per the LoA.

17. The Committee supported the CNCID's committee proposal to host the 4th World Irrigation Forum (WIF4) and 73rd IEC meeting in 2022 in Beijing, China.

C-CONGR Minutes Item 6: Letter of Agreement (LoA) for Hosting Congresses/ WIFs/ Regional Conferences

18. Mr. Bryan Ward, Chairman of the C-CONGR raised the subject of the structure of the C-CONG Committee and suggested that it was not working as effectively as it might due to the non-attendance by previous event holders and in attracting sufficient interest for countries to hold future events.

19. He stressed it was important that host countries have 3 years but a minimum of 2 years to organise events and he was concerned that no host for the 25th Congress had yet emerged.

20. The Committee agreed that this matter be referred for further discussion at the PCSO meeting.

C-CONGR Minutes Item 6.1: Establishment of a Task Team to look into Financial Aspects of Special Contribution to ICID Budget from ICID Events (TT-FASCIB)

21. Mr. Bryan Ward advised that although he was listed on the Task Team (TT-FASCB) he had not received any communication about its establishment or its meeting arrangements on this subject and therefore was not party to the discussion or outcome. He did however, outline the reason for the establishment of the committee which arose from his suggestion at the Canadian event that the 35% contribution to ICID for hosting congresses could be a determent to hold future congresses/WIFs and the reason why countries are not offering to hold an event.

22. VPH Laurie Tollefson, Chair of the Task Team spoke to a presentation, which included the outcomes, prepared by the Task Team following their meeting to discuss this matter. The following key points from this meeting were included.

(a) The Task Team had considered the history of the fee structure which had been reviewed several times over the past few years

(b) The 35% contribution by national committees had been reduced from 50%

(c) The ICID central office had considerable overheads and provided an excellent level of support and assistance to countries hosting events

(d) The outcome from the Task Team was to support the current fee structure set out in the LoA.

23. Chair Mr. Bryan Ward thanked VHP Laurie Tollefson for his summary and presentation and advised he would take this up again in the PCSO meeting.

C-CONGR Minutes Item 7: Any other business

C-CONGR Minutes Item 7.1: Discount for Individual Members

24. The subject of offering a discount to individual members was raised. The Committee did not support a discount for individual members.

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MINUTES OF THE 4TH MEETING OF THE ICID YOUNG PROFESSIONAL'S E-FORUM (IYPEF)
5 September 2019, 09:00-11:00 Hours (Session I)
5 September 2019, 11:15-13:15 Hours (Session II)
Bali, Indonesia

Year of Establishment: 2015

Mandate: At the 65th International Executive Council (IEC) held at Gwangju, Korea, in September 2014, the Council approved establishing an ICID Young Professional's e-Forum (IYPeF) with open membership in order to engage all the Young Professionals interested in AWM issues on ICID platform. The e-Forum established as a new LinkedIn Group (https://www.linkedin.com/groups/6990321) is an open online membership consisting of more than 600 members to encourage and promote a high standard of professional development amongst the young professionals and network with the national and international youth having interest in water-related subjects or the activities, relevant to ICID objectives. IYPeF will not only act as a virtual meeting place but also a platform that would serve as a stepping stone to ICID annual events and provide opportunities to the budding professionals for interaction with the best professionals in irrigation and drainage sector, present papers, avail the latest information and join various technical working groups.

Members Present: (1) Mrs. Kathleen Murray, Coordinator Hon. (Australia); (2) Mr. Amali Abraham Amali, Coordinator (Nigeria); (3) Ms. Eman Ragab Nofal (Egypt); (4) Ms. Adey N. Mersha, Joint Coordinator Hon. (Ethiopia); and (5) Ms. Sahar Norouzi (Iran).

Observers: (1) Masaomi Kimura (Japan); (2) Azhari Adrie (Indonesia); (3) Budi M. Habibi (Indonesia); (4) Juliia Danylenko (Ukraine); (5) Heidi Salo (Finland); (6) Fedotova Ekaterina (Russia); (7) Samkelisiwe Hlope (South Africa); (8) Mortaza Yazdekhasti (Iran); (9) Keigo Noda (Japan); (10) Won-Ho Nam (Korea); (11) Higelaine I. Lapac (Philippines); (12) Rafat Nael (Iraq); (13) Wele M. Sumith Priyankara (Sri Lanka); (14) Janga Niharika (India); (15) Chusnul Arip (Indonesia); (16) Dina Erlinawati (Indonesia); (17) Diro Nosrullah (Indonesia); (18) Dendy Permana (Indonesia); (19) Bayu Sejoawan (Indonesia); (20) Laela Fitriyantina (Indonesia); (21) Eunmi Hong (Korea); and (22) Sahdev Singh Dir-KM, ICID Central Office (India).

LinkedIn Group: https://www.linkedin.com/groups/6990321

IYPeF Minutes Item 1: Action taken by Coordinator

1. After the third IYPeF meeting held in Saskatoon in August 2018, the IYPeF Coordinators organised one follow-up virtual meeting in 2018. In the meeting and from discussion among coordinators, the e-Discussion and webinar topics as part of the IYPeF activities in 2019 were finalised and the role of lead coordinator for each e-Discussion topic was assigned. The activities to be undertaken by the group during the year were discussed and highlighted.

2. The forum also acknowledged and thanked the outgoing co-ordinators, namely, Ms Kathleen Murray (Australia) and Ms. Adey N. Mersha (Ethiopia) for their valuable contributions and active service during their time in office. Accordingly, the updated list of the IYPeF coordinators is as follows:

(a) Mr Amali Abraham Amali (Nigeria), Coordinator (2018)
(b) Ms Eman Ragab Nofal (Egypt), Joint Co-ordinator (2017)
(c) Ms Sahar Norouzi (Iran), Joint Co-ordinator (2018)
(d) Mr Mohammad Shoaib Saboory (Afghanistan), Joint Co-ordinator (2017)

3. The coordinator highlighted the need to fill the two vacated offices using the revised IYPeF Scheme or otherwise as would be discussed with the ICID Central Office and communicated to the Forum vide appropriate channels.

IYPeF Minutes Item 2: ICID Young Professionals e-Forum (IYPeF)

4. The IYPeF is composed of one coordinator and three joint-coordinators, including Ms. Kathleen Murray (Australia – Hon. Coordinator), Mr. Amali Abraham Amali (Nigeria- New Coordinator), Ms. Sahar Norouzi (Iran), Ms. Adey N. Mersha (Ethiopia – Hon. Joint co-ordinator), Ms. Eman Ragab (Egypt) and Mr. Shoaib M. Saboory (Afghanistan). To encourage and intensify the active participation of Young Professionals in ICID activities in the domain of irrigation, drainage, and flood management, the IYPeF organised series of e-discussions and webinars as per their mandate. Accordingly, five e-discussions, as indicated below, were held in 2019 to enable the young professionals to contribute their views on the topics of interest with a specific focus on the theme "Development for water, food and nutrition security in a competitive environment" for the upcoming Third World Irrigation Forum (WIF3) and 70th IEC Meeting held from 1-7 September 2019 in Bali, Indonesia.

IYPeF Minutes Item 3: Report of the 4th Virtual Meeting of the ICID Young Professionals e-Forum (IYPeF)

5. The coordinator presented a brief report of the 4th virtual meeting of the IYPeF held on 28 November 2018 in conjunction with the IYPeF coordinators and staffs of the ICID Central Office. The meeting finalised the e-discussion topics as well as webinars as part of the activities of the IYPeF towards the WIF3 in Bali 2019. The need to end the e-discussions in sufficient time to allow for selection of YPs and Visa application process was also emphasised. The forum was also briefed on the revised IYPeF scheme with modifications with respect to membership and selection criteria for sponsorships.

IYPeF Minutes Item 4: IYPeF e-Discussions (Completed)

6. The coordinator informed the forum that for the 2019 activities leading up to the Bali meetings, the IYPeF organised five e-Discussions to enable YPs contribute own views on various topics with a specific focus on the theme "Development for water, food and nutrition security in a competitive environment" for the WIF3 and 70th IEC Meetings held from 01 – 07 September 2019 in Bali, Indonesia. Based on the revised IYPeF Scheme, Young Professionals were selected for scholarships to join the WIF3 and 70th IEC meetings. The following YPs received the scholarships;

(a) Ms Kathleen Murray (Australia)
(b) Ms Adey N. Mersha (Ethiopia)
(c) Ms Eman Ragab Nofal (Egypt)
(d) Ms Sahar Norouzi (Iran)
(e) Mr Amali Abraham Amali (Nigeria)
(f) Mr Mohammad Shoaib Saboory (Afghanistan)
(g) Mr Rafat Nael AbdulGhani Al-Intaki (Iraq)
(h) Ms Higelaine I. Lapac (Philippines)
(i) Ms Ekaterina Viktorovna Fedotova (Russia)
(j) Mr Wele Methrige Sumith Priyankara (Sri Lanka)
(k) Ms Luliia Danylenko (Ukraine)
(l) Ms Janga Niharika (India)
(m) Ms Heidi Salo (Finland)

7. The coordinator informed the forum that the membership strength has risen to over 650 members on the LinkedIn group but highlighted the low number of active participants across e-discussions. The rise in plagiarised content was also discussed in the forum, reiterating the call for ingenuity of knowledge as opposed to an era of copy pasting. The topics and their lead coordinators for 2019 were as follows:

(a) Non- Conventional Water Use/re-use in irrigation (Ms. Eman Ragab)
(b) Solar-Powered Irrigation System: Exploring Opportunities and Threats (Mr. Amali A. Amali)
(c) Soil Conditions to Ensure Sustainable Agriculture and Coping with Climate Change (Ms. Kathleen Murray & Mr. Shoaib Saboory)
(d) Flood management in agriculture (Ms. Sahar Norouzi)
(e) Cost-effectiveness of Agricultural Field Drainage (Ms. Adey Mersha)

8. A two-page summary on each e-discussion topic was also prepared and submitted by the lead coordinators to the ICID Central Office. As a formal contribution to knowledge, the forum also discussed plans to coherently condense the outcome of the e-discussions into a review article to be published in the Irrigation and Drainage Journal. This was agreed to be made consistent with subsequent e-discussions. In line with this, the forum discussed the need for meaningful and useful contribution to knowledge and it was agreed to set up some guidelines for discussions that ensures quality and coherence of discussions among forum members in line with forth coming ICID events. The Coordinators agreed to take the responsibility of formulating guidelines for YP contributions in coordination with the ICID Central Office and will be made available to forum members before the commencement of year 2020 activities.

9. With respect to output of the e-discussions, the coordinators will work on coherently compiling the 2-page summary and will consult the Chair of the ICID Journal Editorial Board (EB-JOUR) to discuss the possibility of publishing with the Journal on Irrigation and Drainage. Herewith, it was also agreed to follow-up with the Chair EB-JOUR to explore that recipients of ICID Young Professionals scholarships are added to the list of those receiving the ICID Journals as stated in the scholarship criteria.

IYPeF Minutes Item 4.1: Non- Conventional Water Use/re-use in irrigation (Ms. Eman Ragab)

10. The Chair informed the Forum that Mrs Eman Ragab coordinated the first e-discussion for 2019 on "Non-Conventional Water Use/re-use in Irrigation" from 15 – 31 January 2019 to which Prof. Ragab Ragab (Egypt) acted as a Mentor. The discussion; explored non-conventional water use/re-use in irrigation and provided insights into the non-conventional water types, its use and challenges in irrigated agriculture. Also, it discussed the need for putting in place policies, schemes and measures that would help in promoting sustainable management tools of non-conventional water use; appropriate guidelines for use of non-conventional sources of irrigation water as well as highlighted the views of young professionals with regards to non-conventional water use for sustainable agriculture and the challenges and potential solutions in achieving food security.

IYPeF Minutes Item 4.2: Solar-Powered Irrigation System: Exploring Opportunities and Threats (Mr. Amali A. Amali)

11. The report of the second e-discussion on Solar-Powered Irrigation System: Exploring Opportunities and Threats held from 15th February to 2nd March with Dr Petra Schmitter (Research Group Leader - Agriculture Water Management – IWMI) acting as discussion mentor was presented by Amali Abraham Amali. The landmark discussion coinciding with ICID's knowledge exploration on Solar Powered Irrigation Systems drew case studies from Asia Pacific and Africa to explore the use of Solar Power as a non-conventional source of energy in agricultural water management. Guided by the discussion mentor, YPs explored the different policy guidelines needed to promote adoption of as well as access to SPIS especially among smallholder farmers and the need to establish governance frameworks that limits the potential dangers the system may pose to available water resources such as groundwater. The discussion also highlighted the key areas that can be used to promote the use of SPIS as a renewable energy and climate change adaptation measure when compared to conventional systems currently in use. It concluded by identifying potential opportunities for upscaling the technology beyond environmental sustainability to economic sustainability cutting across constrains of land rights and access to capital.

IYPeF Minutes Item 4.3: Soil Conditions to Ensure Sustainable Agriculture and Coping with Climate Change (Ms. Kathleen Murray & Mr. Shoaib Saboory)

12. The report on the third e-discussion on Soil Conditions to Ensure Sustainable Agriculture and Coping with Climate Change held from 15 – 30 March 2019 was presented by Kathleen Murray. During the two weeks, YPs discussed on how soil health impact on agricultural production and climate change as well as explored options for sustainable agriculture under climate change such as management practices that lead to reduced carbon footprint from agricultural soils. The discussion identified pressures on land as one of the factors driving expansion without proper management of soil for existing agricultural lands. Lack and high cost of field monitoring equipment's was also highlighted as one of the challenges to research efforts that tend to address soil health. As a way forward, it is obvious that agricultural practices should be able to adapt to future conditions include tackling poor soil structure by preventing soil compaction which leads to higher nutrient leaching and decreased crop productivity.

IYPeF Minutes Item 4.4: Flood Management in Agriculture (Ms. Sahar Norouzi)

13. The report of the fourth IYPeF e-discussion held under the topic: Flood management in agriculture from 15 – 30 April 2019 was presented by Sahar Norouzi. The e-discussion identified the positive effects as well as negative impacts of flood on agricultural lands. It went further to review existing information on the existence of large agricultural lands that are irrigated using flood water in countries such as Somalia, Iran, Finland, and India. Traditional methods of flood conservation were also discussed as well as the need for cooperation and collaboration between technocrats, policy makers, and local communities.

IYPeF Minutes Item 4.5: Cost-effectiveness of Agricultural Field Drainage (Ms. Adey Mersha)

14. The discussion on "Cost-effectiveness of Agricultural Field Drainage" was organised from 15 – 31 May as one of IYPeF activities in 2019. The report of the discussion was presented by Ms Adey Mersha and explored the history, current need of agricultural drainage in the context of alarmingly rising global food demand, determining factors for improving the cost-effectiveness of agricultural drainage systems as well as possible interactions with the environment. Furthermore, the discussion also explored the role of young professionals in advancing and modernising the field of Agricultural drainage. Brief deliberations were made highlighting the positively energetic, enthusiastic and fast learning behaviour of young professionals as well as their potential for an improved communication and dissemination of knowledge for use in sharing experiences and practical knowledge among researchers and practitioners across various scales towards further advancing and modernising agricultural drainage. As a way forward, the need for further research in the field to achieve optimum drainage solution as per the desired level of automation and affordability was also identified and recommendations on priority research areas were made.

IYPeF Minutes Item 5: IYPeF Webinars for 2019

15. The coordinator presented a brief on the two webinars organised as part of the activities of the IYPeF in 2019. The webinars; (1) Open Source Geo-Spatial Tools and Mobile Device for Canal Network Digitization by Paavan Kumar Reddy Gollapalli used case studies from India to explore how mobile devices, open source mobile apps, and geospatial technology can be used for collecting ground truth data and how to process the obtained raw data. (2) Crop Water Productivity in Afghanistan by Najumuddin further discussed how best available scarce water resources in Afghanistan can be optimised to ensure maximum utilisation of each cubic meter of water. The coordinator further stressed the uniqueness of these webinars as delivered by fellow Young Professionals and called on the forum to take up the responsibility of co-sharing knowledge across the available platforms.

IYPeF Minutes Item 6: Training workshops for Young Professionals at WIF3, Bali 2019

16. As part of the IYPeF activities in Bali 2019, ICID in close collaboration with the Indonesian Committee on Irrigation and Drainage (INACID) and International Water Management Institute (IWMI), organised a one-day International Young Professionals Training attended by 37 participants including Young Professionals and experts. The forum during her 4th meeting discussed the low participation of YPs in the training workshop by YPs that attended the Bali meetings to which low publicity was highlighted as one of the major setbacks. As way forward to future YP events, the forum recommended highlighting these events on the conference websites as well as using available networks for publicity. Possibility of having YPs sign up at the point of registration will also be investigated.

IYPeF Minutes Item 7: Proposed activities, e-discussion, and webinar topics towards Sydney 2020

17. During the meeting, the forum suggested and discussed topics to be considered in e-discussion and webinars as part of IYPeF activities in 2020. The discussion also went further to propose activities that can be organised by the IYPeF during ICID events to increase reach, create awareness, and encourage more participation of YPs in future events. In line with the theme of the 71st IEC meetings and 24th International Congress to be held in Sydney, Australia from 22-28 September 2020 - Innovation and Research in Agriculture Water Management to Achieve Sustainable Development Goals – the forum suggested the following topics viz;

(a) Application of bigdata in agricultural water management. To include groundwater mapping.
(b) Nature-based drainage solutions to increase flexibility of drainage systems under varying climate.
(c) Remote sensing for water resources management: Challenges and opportunities. To include drought monitoring and evapotranspiration measurements.
(d) Bridging the irrigation gap through stakeholder involvement for achieving the SDGs.
(e) Smart agricultural water management systems for increasing water security and water productivity.
(f) Sustainable agricultural intensification for food security and ecological integrity. To consider vertical farming, urban agriculture, aquaponics.
(g) Application of ICT smart technologies for decision support systems at different scales of agricultural water management. Including a review on state-of-the-art as well as use of social media for farmer peer-to-peer learning.
(h) Governance structures for sustainable agricultural water management.
(i) Carbon cultivation in irrigation and drainage as mitigative strategies to climate change.
(j) River restoration as a method for flood conservation and control.
(k) 2-D Flood Modelling with HEC-RAS.

18. The coordinators will follow-up the proposed topics to finalise and assign lead coordinators as will be appropriate for e-discussions and webinars via a virtual meeting to be held after the Bali meetings in coordination with the ICID Central Office.

IYPeF Minutes Item 8: Any other Business

19. As part of the planned activities for the WIF3, Bali 2019, the coordinator also briefed the forum on how YPs can use social media to increase the reach of ICID events particularly using the WIF3 as a sample study. As part of the IYPeF activities, certain YPs committed to sharing highlights of the WIF3 across social media platforms using certain keywords which will be filtered, analysed, and presented as part of YP inputs to WIF3.

20. The coordinator briefly introduced to YPs present how to use the LinkedIn platform for e-discussions in ways that makes it logical for readers to follow. He also stressed on creativity and innovation as the driving force of the e-discussions rather than plagiarised contents. With output discussed as contributing to review articles for publications, the forum further stressed the need for qualitative discussion among YPs.

21. The forum also deliberated on the time allotted to each e-discussion as one of the drivers for plagiarism and rush for quantity rather than qualitative information. Due to constraints of time, it was however agreed to keep the length of e-discussions to two (2) weeks while the coordinators will liaise with the ICID Central Office to establish guidelines that govern contributions of YPs on the LinkedIn platform. This will also take into consideration appropriate communication channels for expressing displeasure with members participation as well as engagement on the forum.

22. The Young Professionals also discussed the challenges with using LinkedIn as discussion platforms and the low/late notification. Email groups were suggested as avenues to circulate activities among young professionals and to be explored by the coordinators. It was however agreed to use the social media platforms for notifying members of upcoming activities ahead of time. YPs are therefore encouraged to follow the different social media currently operated by the IYPeF as more channels are to be explored.

23. Finally, the forum discussed the need to include more YP activities in future events to increase the participation of more young professionals as well as drive their active engagement before, during, and after ICID events. The participation of YP's from the hosting National Committee and surrounding region may be encouraged.

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WMINUTES OF THE 4th MEETING OF THE INTERNATIONAL RESEARCH PROGRAM FOR IRRIGATION & DRAINAGE: ADVISORY COMMITTEE (AC-IRPID)

01 September 2019: 0900-1100 Hours
Bali, Indonesia

Members Present: (1) VPH Dr. Ding Kunlun, Chair (China); (2) Dr. Narges Zohrabi, Head, Ahwaz Regional Node of IRPID-IRN (Iran); (3) Ms. Li Rouxi, CNCID & Representative of Beijing Regional Node of IRPID (China); (4) Mr. Dilshod Kimsanov, Head, Central Aasian and Caucasus Regional Node (Tajikistan), (5) Ms. Sasha Koo-Oshima, FAO Representative; (6) Mr. Pieter Waalewijn, World Bank Representative, (7) Dr. Alok Sikka, IWMI Representative; (8) VP Mr. Waseem Nazir, Co-Theme Leader, Strategy Theme-Knowledge (Pakistan); (9) VP Dr. Brian T. Wahlin, Co-Theme Leader, Strategy Theme-Knowledge (USA); (10) VP Er. Naoki Hayashida, Co-Theme Leader, Strategy Theme-Basin (Japan); (11) VP Dr. Kamran Emami, Co-Theme Leader, Strategy Theme-Basin (Iran); (12) VP Dr. Irene Bondarik, Co-Theme Leader, Strategy Theme-Schemes (Russia); (13) VP Dr. Marco Arcieri, Co-Theme Leader, Strategy Theme-Schemes (Italy); (14) VP Mr. Ahmed EL BOUARI, Co-Theme Leader, Strategy Theme-Schemes (Morocco); (15) VP Mr. Madhav Belbase, Co-Theme Leader, Strategy Theme-On-Farm (Nepal); (16) VP Dr. K. Yella Reddy, Co-Theme Leader, Strategy Theme-On-Farm (India) and (17) Mr. Ashwin B. Pandya, Secretary General, ICID.

Terms of Reference (ToR):

The Advisory Committee is responsible for developing a Framework Action Plan for the program, guided by the concept document as was presented at the 61st IEC in Yogyakarta in 2010 and keep overall coordination among the Nodes duly supporting their autonomy and maintaining flexibility in fulfilling their roles. These can be categorised as follows:

(a) Develop the Strategy duly describing the strategic objectives and a Framework Action Plan for the program;
(b) Review and monitor the implementation of the program to ensure the quality of outputs and their effectiveness; and
(c) Mobilize and allocate extra-budgetary resources through joint activities.

AC-IRPID Minutes Item 1: Brief introduction by SG, ICID

1. SG provided a brief introduction and overview of the IRPID Scheme to the Committee members, including its genesis as an International Program for Technology Research in Irrigation and Drainage (IPTRID), initially hosted by the World Bank and later FAO and later reinvigorated as International Research Program for Irrigation and Drainage (IRPID) as a Scheme (http://www.icid.org/irpid_scheme.pdf), notified vide vide Notification No.6 of 2017 dated 23 February 2017, under the patronage of ICID.

2. SG has explained how the multilateral agencies like the World Bank can support the research in irrigation and drainage by lending funding support to the Regional Nodes established under IRPID Scheme. In order to fulfill the mission of ICID, it is required to promote the capacity building activities, which cannot generate quick project oriented outcomes.

AC-IRPID Minutes Item 2: Inputs from Beijing Regional Node

3. Ms. Li Rouxi presented the report on the activities undertaken by the Beijing RN and future plans for information and guidance of the Advisory Committee. The activities organized by Beijing RN included the International Young Professionals Training Program on “Climate Resilient Smart Irrigation Systems”, held from 22-25 April 2019 at Aasan, South Korea with 34 young professionals from 17 countries in attendance, together with International Professionals Workshop on the same topic with 34 professionals from 10 countries held on 26 April 2019; Belt and Road Forum on Irrigation & Drainage Development and Science & Technology Innovation on “Irrigation Technologies to Mitigate Climate Change” on July 30 2019 in Beijing, China with more than 300 delegates from 17 countries participating; Forum on Wisdom of Heritage Irrigation Structures Serving Modern Irrigation Districts on 31 July 2019 in Beijing China, with more than 100 delegates from 7 countries getting benefitted and finally concluding with the organization of Annual Academic Meeting on “Accelerate modernization of irrigation and drainage – promote rural rejuvenation” with more than 200 delegates participating at CAU, Beijing on 14 September 2019. Beijing RN’s future plans included organization of activities during 2020 and cooperation and exchanges with NCs of Indonesia, Pakistan, Tajikistan, etc. with an earmarked budget of US$ 40000.

4. A couple of suggestions made by RN included such as ICID could set up (a) a network of training specialists to provide future training sessions with more and better options of lecturers and (b) a mechanism of regular meeting and exchanges among countries in the region so as to address common problems.

5. The Committee expressed its appreciation at the overall functioning of the Beijing RN, and agreed to the suggested plans of the Regional Node in addressing the issues related with training of YPs and for promoting the regional cooperation among the countries. The Committee suggested that the Regional Node may beneficially utilize the model of relationship between Korea Rural Community Corporation (KRC) and Korean National Committee on Irrigation and Drainage (KCID) for long-term progress in cooperation with ICID and generating more opportunities for capacity building on the similar lines.

AC-IRPID Minutes Item 3: Inputs from Ahwaz Regional Node

6. Dr. Narges Zohrabi, Head, Ahwaz Regional Node presented the report on the activities undertaken by the Ahwaz RN and future plans for the information of the Advisory Committee.

7. In her report, Dr. Zohrabi stated that so far 8 countries have joined the IRPID-IRN, viz. Afghanistan, Egypt, Georgia, Iran, Iraq, Korea, Russia and Tajikistan. So far, the Regional Node has held three Advisory Committee meetings, three Management Board meetings and a meeting of its member countries, including virtual meetings. The fourth MB meeting of RN would be held at Bali on 01 September 2019. The first of the two major activities that have been undertaken during the year included finalizing the Iran-Russia Bilateral Research Collaboration Protocols I, II and III between the All-Russian Research Institute for Hydraulic Engineering and Reclamation (VNIIGiM) on one side and Deputy Minister of soil and Water of Ministry of Jihad-e Agriculture and Khuzestan Water and Power Authority (KWPA) on the other. The areas of cooperation under Protocol I were (1) Agricultural Sustainable Development under Saline Environment, (2) Drainage Water Treatment and Reuse and (3) Real-time Operation of Multi-purpose Reservoir with References to Agricultural Demand. Bio-engineering pilot on drainage and waste water treatment for re-using in irrigation of agricultural crops and fish breeding was the research topic of the Protocol II and Protocol III dealt with Drainage Water Treatment and Reuse, which led to the required studies for design and implementation of Bio Engineering Pilot (BEP). Under these protocols, the visits have been exchanged between Iranian and Russian researchers.

8. The second major activity undertaken by the Ahwaz RN was the organization of the International Training Workshop on Water Accounting Concepts and Tools held Tehran/Ahvaz from 23-26 February 2019 in collaboration with FAO and ICID. A wide range of audiences attended the workshop including high-level decision-makers, academics, and professionals in the water, agriculture, and environmental sectors, and some specialists from member countries of the Regional Node. The participants in the workshop were expected to learn about the process of rapid water accounting, different terminologies used in water accounting, and how to avoid common errors in water accounting through case studies. It was also designed to strengthen the existing inter-agency strategic capabilities and fostering a fruitful exchange of information across experts and decision-makers responding to prevailing issues in water sector. The workshop concluded with a Technical/Cultural tour to Shushtar. The presentations and the report of the workshop are uploaded on the Ahwaz RN's website: http://irpid-iran.org

9. The future plans as envisaged by the RN included (i) To extend and follow up with member countries for contribution to the data base, (ii) To continue with the existing collaborative research and extend such activities among the members in the model of Russia- Iran protocols, (iii) To encourage international agencies to support the activities of RN, (iv) To continue with capacity development, with the support from ICID and FAO and a request has been submitted to ICID for further support on Irrigation Management Transfer (IMT) workshop and (v) To extend further cooperation with other national/international institutions to embark on more researches. She said that the IRPID-IRN is prepared to pursue any research topics supported by these international agencies among member countries. She concluded her report seeking the guidance and assistance of Advisory Committee in achieving the targeted activities.

10. Advisory Committee appreciated the report presented by Dr. Zohrabi and assured its support to Ahwaz RN in carrying out it planned activities.

AC-IRPID Minutes Item 4: Inputs from Central Asian-Caucasus Regional Node

11. The Head/Representative of the Central Asian-Caucasus Regional Node presented the report on the activities undertaken by the CAC RN and future plans for the information of the Advisory Committee. The representative of CAC RN has presented an overview of the mission, objectives and organizational set up which have been firmed up as per the notified IRPID Scheme. The countries proposed to be part of CAC RN included Bangladesh, China, Japan, Kazakhstan, Nepal, Turkey, Uzbekistan, Vietnam, Georgia, India, Indonesia, Russia, South Korea and Kyrgyzstan and they have been approached for their consent to be part of the program.

12. The Committee noted the report and approved the mission, objectives, and organizational structure of the RN as given in Annex to the agenda notes of AC-IRPID.

AC-IRPID Minutes Item 5: Evolving Collaborative Research Mechanism among the Regional Nodes

13. The Advisory Committee reviewed the existing collaborative research mechanism among the RNs and explored the ways to further evolve it.

14. SG informed the Committee that with the objective to help ICID to serve as a repository of knowledge in irrigation and drainage sector, IrriSEARCH (https://www.icid.org/res_tools.html#Irrisearch), an important tool in fulfilling the objectives of IRPID, has been put in place in accordance with the Irrigation Research (IrriSEARCH) database template approved at the 68th IEC meeting in Mexico City, Mexico in October 2017. The objective is to bring together all agriculture water management (AWM) research activities from various NCs on a single forum to help others learn from their experiences. The IRPID Scheme is recognized as one of the activities that could provide NCs an opportunity to improve its profile within the countries as it provides various research stakeholders in AWM research, a window to exchange and showcase ongoing research activities in the irrigation and drainage sector worldwide.

15. So far, around 10 research institutes have registered in the portal. The Committee urged RNs and NCs to encourage the research institutions in their country involved in AWM to join the network by projecting key information of their research activities for wider dissemination and fulfilling the objective of collaborative research mechanism among the RNs.

AC-IRPID Minutes Item 6: Dissemination Mechanism on Exchange of Research Findings

16. The Committee appreciated the dedicated page on ICID web site for IRPID (https://www.icid.org/irpid.html) and dissemination of activities of IRPID RNs through ICID News update and ICID News, as some of the measures initiated by ICID to encourage the exchanges of research findings on an intra-node basis and inter-nodes basis.

17. The Advisory Committee deliberated about how to improve the existing mechanism for wider dissemination and exchange of research findings among RNs, NCs and other stakeholders of ICID.

AC-IRPID Minutes Item 7: Establishment of Additional Regional Nodes

18. The Committee considered the updated status presented by the proponents of additional RNs approved in principle by 69th IEC meeting last year.

19. The Advisory Committee considered the report regarding the establishment of the RN for Africa supported by NCs of Egypt, Sudan and Morocco and recommended that due to constraints of individual members that the North African RN be hosted by the Moroccan NC, for which the concerned National Committees have agreed.

20. VP Dr. Marco Arcieri provided an update on the Mediterranean RN proposed to be hosted by Italian NC as per the submission last year and informed that efforts are being continued for generating resources for the establishment of the proposed Mediterranean RN and mobilizing the associated countries for the same. The Advisory Committee took note of the developments in this regard and requested the Italian NC to firm up the proposal for the establishment of the Medirterttanean RN, so that the RN can be formally established this year.

21. The Advisory Committee felt the need for a RN for Spanish speaking countries in Latin America and urged Mexican NC of ICID to take the lead in establishing a RN for Spanish speaking countries or for entire Americas.

22. The Advisory Committee advocated for establishment of more RNs in various regions in order to fulfil the objectives of the IRPID Scheme.

AC-IRPID Minutes Item 8: Leveraging National Funding for Raising Financial Resources by RNs

23. The Committee supported the idea of RNs approaching international funding mechanisms that support AWM activities and for that a good track record of successful outcomes from its activities are to be maintained.

24. The Committee acknowledged that one of the objectives of the IRPID is to support the NCs to receive adequate funding from their own governments. The members of the Committee were unanimous in their opinion that the NCs, through the outcomes of the Regional Nodes, sharing the best and new technologies, making use of various ICID communication channels, such as web pages, ICID News and Irrigation and Drainage Journal are in the best position to leverage the research and development outcomes for their direct implementation in the field

and thus generate funding for their planned activities. The national funding can be leveraged further by international collaborations through funding such as IFAD, FAO, World Bank, etc. In case, the NCs are not in a position to raise resources for research activities, the IRPID RN may approach directly the international funding mechanisms that support AWM activities. The Committee reiterated that in order to attract such funding for the IRPID program, there is a need to have a good track record of successful outcomes.

25. The Committee has urged the funding agencies such as FAO, IFAD IsDB and the World Bank to support IRPID training and research programs.

AC-IRPID Minutes Item 9: Any Other Business

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MINUTES OF THE FIRST MEETING OF THE
WORKING GROUP ON ADAPTIVE FLOOD MANAGEMENT (WG-AFM)
05 September 2019, 09.00-11.00 hours (Session-I)
05 September 2019, 11.15-13.15 hours (Session-II)
Bali, Indonesia

Strategy Theme: Basin

Presented by the Chairman

Year of Establishment: 2016 **Completion of the Mandate: 2022**

Mandate (new):

(a) To motivate ICID National Committees in various countries to set up their National Working Groups;
(b) To provide guidance to compile, publish, update and/or translate documents on adaptive flood management;
(c) To promote inter-disciplinary exchange of information, knowledge and experience, as well as networking on the topic for proper understanding of the technological developments in the subject;
(d) To organize seminars at ICID Congresses and meeting to enhance deeper understanding of adaptation to and coping with floods including community participation with focus on impact of floods on agriculture water management;
(e) To prepare a paper on "Adaptive Flood Management" for publication in Irrigation and Drainage (IRD);
(f) To finalize a book on "Adaptive Flood Management"

Members Present: (1) Dr. Kamran Emami (Iran), Chairman; (2) Dr. Ikuo Yoshinaga (Japan), Vice-Chairman represented by Akie Mukai; (3) Mr. Maurice Roos (USA); (4) Mr. Arthon Suttigam (Thailand); and (5) Ms. Sahar Norouzi (Iran), Young Professional.

Observers: (i) Prof. Budi Santoso (INACID); (ii) Dr. Katsuyuki Shimizu (Japan); (iii) Ir. Mohamed Soushdy (Egypt); (iv) Ir. Chang E. Park (Korea); (v) Dr. Shivaji T. Sangle (India); (vi) Engr. Tanatuwa Damian Ngamwa (Nigeria); (vii) Engr. Garba Belld (Nigeria); (viii) Engr. Adeyinka A. Adenopo (Nigeria); (ix) Ir. Shin Takano (Japan); (x) Ir. Airlangga (Indonesia); (xi) Ir. Made Denny (Indonesia); (xii) Ir. Komawg Adhi (Indonesia); (xiii) Prof. Tsugihiro Watanabe (Japan); and (xiii) Ir. Abin Lee (Korea)

Website: http://www.icid.org/wg_afm.html

WG-AFM Minutes Item 1: Introduction of the new Working Group

1. Dr. Kamran Emami (Iran), Chairman of the WG welcomed all the members and presented a report on the actions taken on the decisions held at its last meeting at Saskatoon, Canada in August 2018.

2. During the meeting, WG Chair presented a brief history of the WGs on flood management such as (i) WG on Non-structural approaches to flood management (1990-1999), Publication: Manual on Non-structural approaches to flood management; and (ii) WG on Comprehensive approaches to flood management (1999-2017), Publication: Manual on planning for structural approaches to flood management. WG addressed uncertainties of water engineering especially the effects of climate change.

3. New nominations received for the membership of the group and decisions are shown in tables below:

Sl. No.	Name of the Members	Country	Provisionally Admitted
1.	Mr. Sayed Sharif Shobair	Afghanistan	Deferred
2.	Mr. Delbert Smith	USA	Deferred
3.	Dato' Ir. Mohd Azmi Bin Ismail	Malaysia	Provisional member

4. The new mandate of the WG (*as above*) was reviewed during the meeting. Membership status is given in **Annex 4 (page 27)**.

WG-AFM Minutes Item 2: Road Map to ICID Vision 2030 – Activities of the WG

5. The WG discussed the Action Plan (Road Map to ICID Vision 2030) based on the new mandate by updating the activities on flood management issues and provided latest updates to PCTA for inclusion of "Adaptive Flood Management". AFM is about coping with uncertainties and learning to manage DYNAMIC systems more effectively. A paper prepared by the WG Chair is to be published in the Irrigation and Drainage Journal. The overall contribution of WG-AFM to the Road Map to ICID Vision 2030 will be as follows:

Preparing the WG publication on 'Adaptive Flood Management' in 2020;

(a) Presenting a paper on 'Adaptive Flood Management' in Irrigation and Drainage Journal (2020);
(b) Organizing workshops on flood management during ICID events;
(c) Presenting the relevant documents, presentations and films on the website.

WG-AFM Minutes Item 3: Closure report of erstwhile WG-CAFM and Publication of the Working Group on 'Adaptive Flood Risk Management'

6. The Chair gave a comprehensive presentation on AFM. During the presentation, members of the WG and participants presented a detailed report on some case studies;

(a) SMART tunnel in Kuala Lampur by President Hon. Dr. Keizrul from Malaysia;
(b) Folsom dam by Mr. Maury Roos from USA;
(c) A report on latest status of flood management in Pakistan in the aftermath of 2010 floods by Vice President Hon. Mr. Waseem Nazir;
(d) Mose mega flood project in Venice by Prof. Klaus Roettcher from Germany;
(e) Levee heightening in Nigeria by Nigerian delegation;

7. The Closure Report of the WG-AFM has already been prepared and is being submitted to the ICID Central Office.

WG-AFM Minutes Item 4: Updated Multilingual Technical Dictionary (MTD)

8. The WG could not discuss this item in the meeting and agreed to discuss it during next meeting of the WG. WG Chair requested members to review the MTD terms related to the mandate of the new WG and provid their suggestions to him.

WG-AFM Minutes Item 5: Dissemination of information – Website of the WG

9. It was agreed to prepare a package of presentations, papers, reports and documentaries on flood management. The package will be uploaded to the website. It was also proposed to upload the presentations of the internal workshop in Bali, Indonesia on the WG website.

WG-AFM Minutes Item 5.1: Presentation on Floods (Country Case Studies)

10. WG Chair presented a report on devastating floods in Iran in 2019 that was discussed by the members and participants. Although WG and Central Office has asked the host country for a report on status of floods in Indonesia, however, no Indonesia country presentation was made. The following presentations were made by the members/participants:

(a) Adaptive Flood Management by WG Chair Dr. Kamran Emami (Iran)
(b) Updating on Flossom Dam by Mr. Maurice Roos (USA)
(c) Dual Purpose SMART tunnel in Malaysia by Malaysian representative
(d) Mose flood management project in Venice (Documentary)
(e) Rising Dike in Nigeria
(f) Flood management in Germany

WG-AFM Minutes Item 6: Webinar / Web-based Seminar

11. After the discussion, the WG decided to organize a web-based e-discussion in February 2020.

12. Due to the uniqueness of Dual-Purpose SMART tunnel in Malaysia, it was proposed to coordinate a visit to the tunnel by WG Chair. The Malaysian delegation agreed to plan the visit. President Hon. Dr. Keizrul who has been fully engaged in SMART project from conceptual design to construction & operation and offered to participate in the visit to explain the history and technical details of SMART tunnel. Dr. Vijay K. Labhsetwar from the ICID Central Office will also participate in the visit.

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MINUTES OF THE 4TH MEETING OF THE WORKING GROUP ON CLIMATE CHANGE AND AGRICULTURAL WATER MANAGEMENT (WG-CLIMATE)

5 September 2019, 14:00-16:00 hours (Session I) and 16:15-18:15 hours (Session II)
Bali, Indonesia

Strategy Theme: Basin

Presented by the Chairman

Year of Establishment: 2015 **Extended the completion of the Mandate: 2021**

Mandate: (a) To share the information about prediction of the global and regional climate change and climate variability; (b) To explore and analyse the implications of climate change and climate variability for agricultural water management including irrigation, drainage, and flood control; (c) To promote archiving useful information and case studies on climate change for practical use in improved impact assessment and adaptation development; (d) To enhance discussion on climate change and water management at national and regional scales among the stakeholders including academician, practitioners, decision makers, media as well as farmers and water users in a region; and (e) To join the international dialogue on Climate change and water management.

Members Present: (1) Dr. Tsugihiro Watanabe, Chair (Japan); (2) Dr. Ray Shyan Wu, Vice Chair (Chinese Taipei); (3) Dr. Tian Fuqiang, Secretary, (China); (4) Mr. Atin Kumar Tyagi - Direct Member, JISL (India) represented by Dr. P. Soman; (5) Dr. Nozar Ghahreman (Iran); (6) Prof. Dr. Choi, Jin-Yong (Korea, Rep. of); (7) Reynaldo L Baloloy (Philippines); (8) Eng. (Ms.) Talatha Janaki Meegastenna (Sri Lanka); (9) Dr. Sue Walker (South Africa); and (10) Dr. Liu Jih-Shun (Chinese Taipei).

Permanent Observers: Dr. Alok Sikka (IWMI Representative)

Observers: (1) PH Keizrul bin Abdullah (Malaysia); (2) VPH Shinsuke Ota (Japan); (3) Anton Urfels (Germany); (4) Budi Indra Setiawan (Indonesia); (5) Kazi Yamakawa (Indonesia); (6) Chumul Arif (Indonesia); (7) Satyanto K. Kaptomo (Indonesia); (8) Mamoru Watanabe (Japan); (9) Mr. Kenji Miyagawa (Japan); (10) VP Naoki Hayashida (Japan); (11) Shin Takano (Japan); (12) Fumi Okura (Japan); (13) Eunmi Hong (Korea, Rep. of); (14) Huei-Yih Hsu (Chinese Taipei); (15) Wu Hsing-Chuan (Chinese Taipei); (16) Chiayi Chien (Chinese Taipei); (17) Lin Chun Chi (Chinese Taipei); (18) Dr. Maurice Roos (USA).

Website: http://wg-climate.icidonline.org/

WG-CLIMATE Minutes Item 1: Action taken report by Chair

1. At the onset, the Chair Dr. Watanabe welcomed all the members and briefed on the latest status on the action point emerging from the minutes of the previous meeting of the WG held at Saskatoon, Canada in respect of - (i) updating of the terms of MTD related to the scope of the group; (ii) sharing information within the WG through internet, including the WebEx-Meetings of the WG organized on March 8, and August 19, 2019; (iii) review of the new membership nominations, (iv) organization of the International Workshop during the Third World Irrigation Forum (WIF3) on September 1, 2019; and (v) organization of the meeting of the WG with the WG workshop on September 5, 2019 at Bali.

2. The WG reviewed the membership of the group which includes one new nomination viz. Mr. REYNALDO L. BALOLOY (Philippines), and the same was accepted with the participation of the nominee. The member from Pakistan (Mr. Javeed Iqbal Bokhary) had not contributed to the activities of the WG during last two years so as per ICID By-laws 3.5, it was recommended to discontinue the membership of Pakistan with the recommendation to invite new nomination. Since the member of the WG Dr. (Ms.) Fransisca Mulyantari (Indonesia) regretfully passed away in 2018, Chair Dr. Watanabe has requested INACID to nominate a new professional for the membership of the WG, and the response is awaited. Membership status is given in **Annex 4 (page 27).**

WG-CLIMATE Minutes Item 2: Brief of the WebEx (virtual) meeting organized in March and August 2019

3. The WebEx meetings of the WG were held twice in March and August 2019, to promote the information sharing inside the WG and to collect the ideas and suggestion of the members who are not able to participate in the regular face-to-face meeting in the IEC. The major agenda of both meetings were (i) Expected outcomes of the WG activities on the Road Map for the ICID Vision 2030, (ii) Updating of the MTD-Climate, and (iii) the International Workshop during the Third World Irrigation Forum (WIF3).

WG-CLIMATE Minutes Item 3: Road Map to ICID Vision 2030 – Status of activities on climate change and agricultural water management

4. The WG re-reviewed the Action Plan on the Road Map to ICID Vision 2030 that was modified in the WG meeting in Saskatoon, 2018 (refer **Annex**). The WG confirmed the expected activities for the Goal B and D of the WG under the Action Plan and, as the outcomes of the activities, the WG will publish "Guide to Innovated Irrigation and Drainage Management under the Changing Climate" (tentative title).

WG-CLIMATE Minutes Item 3.1: Publication of the outcomes of the WG

5. The draft table of contents of the expected publication (refer item 3 above) was deliberated and the new time line for drafting was decided (as given below). The first draft publication is to be discussed in the 5th meeting of the WG in Sydney in September 2020.

(a) Final draft table of contents: by October 2019
(b) Proposal to other WGs for joint editing: by November 2019
(c) Assignment of corresponding draft authors: by December 2019
(d) Collection of relevant information including similar publication and international initiatives: by March 2020
(e) Preparation of sub-chapters and sections with key words or key sentences: by March 2020
(f) First Draft Articles: by August 2020

WG-CLIMATE Minutes Item 4: Exchange of information, knowledge & networking

WG-CLIMATE Minutes Item 4.1: Website of the WG

6. After the WG meeting at Saskatoon, 2018, the website of the working group had been updated with the CVs of the members by Dr. Fuqiang Tian, Secretary of the WG, in charge of managing the website of the WG, with the help of the ICID Central Office. The WG members were requested to send and update the CVs for the website and provide the interesting articles/ papers/ presentations/ documents related to the activities of the group for uploading on the website. The presentation materials as well as the photos in the previous WG meetings were also uploaded.

7. The WG discussed upgrading the website plan, including (i) targeted audiences and objectives, ii) update frequency, which depends on the active inputs from working group members, and might be preliminary 4 times per year (update every 3 months), and iii) materials to be shared. Based on the discussion, Dr. Fuqiang Tian will prepare the strategy and measures for improving and updating the website and they will be shared by the members. It was proposed that two members viz. Dr. Nozar Ghahreman and Dr. Liu Jih-Shun be assigned to help the work of Dr. Fuqiang Tian.

WG-CLIMATE Minutes Item 4.2: Webinar/ Web based seminar

8. The Chair Dr. Watanabe stressed the need to plan Webinar by the WG and suggested to discuss and finalize topics and names of experts to deliver webinars through virtual meeting. The members are also requested to participate in the webinar being organized by ICID.

WG-CLIMATE Minutes Item 5: Updating Multilingual Technical Dictionary (MTD)

9. After the WG meeting in Saskatoon, 2018, Dr. Waleed Hassan Abou El Hassan, the head of the Task Team for MTD-CLIMATE, circulated the updated Work Plan for updating of MTD on Climate to all members and requested them to edit and update the terms of MTD related to the scope of the group, with the timeframe, steps and target dates for updating. According to the work plan, it was proposed that each member of the WG will be assigned two categories and terms of each categories would be drafted by two members.

10. The team leader Dr. Hassan could not participate in the WG meeting hence progress on updating MTD could not be provided at the meeting and also about the future plan. The group requested Dr. Hassan to circulate the updated version to the members. It was proposed that the first draft MTD-CLIMATE will be revised with the direction of TF-MTD.

WG-CLIMATE Minutes Item 6: International Workshop on Innovation of developing the strategy for impact assessment during WIF3, September 2019, Bali

11. As agreed during the Saskatoon meeting, the WG organized the International Workshop on Innovation of Developing the Strategy for Impact Assessment of and Adaptation to the Climate Change as the "New Normal" on 1 September 2019 at Bali. The main objective of the workshop was to discuss the strategies for developing the innovative impact assessment of the climate change on agriculture and the smart water management for adapting to the climate change. In the workshop, total 11 papers were presented out of 15 accepted papers.

12. The major findings and discussion points are as follows:

(a) The more reliable information of the future climate change impacts with less quantitative and qualitative uncertainties are to be established through innovative and integrated impact assessment and it is to be shared with all the stakeholders including water users.

(b) The smart water management with the innovated information and communication technology is to be urgently developed and systematically applied, not only for the agricultural productivity but also for the adaptation to the changing climate and mitigation of it.

WG-CLIMATE Minutes Item 7: International Young Professionals Training Program, 22-25 April 2019, Gyeonggi Province, Republic of Korea – Response from YPs on questionnaire

13. The Chair informed that International Young Professionals Training Program (YP-TP) on "Climate Resilient Smart Irrigation Systems" held in Korea in April 2019 was organized by KCID in collaboration with the Chinese National Committee (CNCID) and ICID and was briefed by Mr. Amali Abraham Amali, who participated in the program. WG decided to digest and try to utilize the outcomes of the Program YP-TP for the WG activities, especially the responses of the whole participant to five questions about climate change issues.

WG-CLIMATE Minutes Item 8: Any other business

14. The Chair introduced the discussion and requested Task-Force to Guide ICID Inputs to World Water Forum 9 (TF-WWF9), which will be held in March 2021 at Dakar, Senegal. The TF-WWF9 is going to develop the collaborative events or performances of ICID with other international organizations including IPCC, WMO, FAO, etc. The WG decided to plan some preparatory works for WWF9, which would be the arena to disseminate and discuss the outcomes of the WG in the world communities.

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Annex [Appendix XII, Item 3]

ROAD MAP TO ICID VISION 2030 – ACTIVITIES OF WG-CLIMATE

Goal/ Strategies	Activities	Outcomes / Outputs	Milestone for Year 2017	Milestone for Year 2018	Milestone for Year 2019	Milestone for Year 2020	Milestone for Year 2021
Goal B: Be a catalyst for change in policies and practices							
B2. Strategy: Promoting Risk Management Approaches							
B3. Strategy: Integrated irrigation and drainage management	3.2 Organize introduction of the cases to be applied to other regions	Compilation of Cases	2 Case Studies in humid region (introduction in WG Meeting)	2 Case Studies in arid/semi-arid region (introduction in WG Meeting)	2 Case Studies on unique examples (introduction in WG Meeting)	Extra Case Studies and comparison of the cases (introduction in WG Meeting)	Integration to conclude in general
B6. Strategy: Helping development of climate change adaptation strategy	6.1 Develop Guideline for Water Management Practices under Changing Climate	Guidelines	General policy and table of contents are decided	First draft of the core parts	Release the First Draft Guidelines in WIF3		Release the Final Draft Guidelines
	6.2 Prepare Position Paper on Smart Water Management for Mitigating Climate Change	Position Paper	2nd Workshop on Post Paris 2015	3rd Workshop on Post Paris 2015	Discuss in a Side Event and Release the Draft in WIF3		
	6.3 Develop position paper on adaptation to climate change	Position Paper	Communication with International Organizations	Communication with International Organizations	Release the First Draft Paper in WIF3		Release the Final Draft
Goal D: Enable cross disciplinary and inter-sectoral engagement							
D2. Strategy: Develop technical documents in non-technical language	2.1 Integrated Assessment of Climate Change Impacts	Brief Guidelines with Compilation of Case Studies	2 Case Studies with focus on technical background and uncertainty (introduction in WG Meeting)	2 Case Studies with previous year's focus plus economic and social aspects (introduction in WG Meeting)	2 Case Studies with previous year's focus plus financial and institutional arrangement (introduction in WG Meeting) and Introduction of state-of-the-art methodologies and their outcomes in WIF3	2 Case Studies with previous year's focus plus interest groups (introduction in WG Meeting)	Release the Brochure

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

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MINUTES OF THE 4TH MEETING OF THE WORKING GROUP ON ENVIRONMENT (WG-ENV)

5 September 2019, 09:00-11:00 hours (Session I) and 11:15-13:15 hours (Session II)
Bali, Indonesia

Strategy Theme: Basin

Presented by the Chairman

Year of Establishment: 2015 **Completion of the Mandate: 2021**

Mandate: (a) To provide guidance to policy makers, planners, designers, and managers in the irrigation and drainage sector on the following environmental aspects of irrigation and drainage systems: (i) physical, (ii) chemical, (iii) ecological, (iv) socio-economic, and (v) cultural; (b) To address concerns to the effects on local, regional and global common goods, such as climate, biodiversity and human health; (c) To work towards the management of a sustainable environment, through adapted practices, adequate policies and institutions, maximizing positive and minimizing adverse effects of irrigation and drainage systems.

Members Present: (1) Prof. dr. (Ms.) Charlotte de Fraiture, Chair (Netherlands); (2) Dr. Fuqiang Tian (China); (3) Engr. Reynaldo L. Baloloy (Philippines).

Observers: (1) Mr. Chris Nicholson (Australia); (2) Howard Ho (Chinese Taipei).

Website: https://www.icid.org/wg_env_new.html

WG-ENV Minutes Item 1: Action taken report by Chair

1. The Chair opened the meeting and welcomed everyone present. All the participants introduced themselves and explained why they were interested in contributing to the activities of WG-ENV. The Chair provided feedback on the decisions and proposals of the working group at its last meeting held at Saskatoon in August 2018.

2. The working group welcomed Mr. Carl Walters (Australia) (represented by Chris Nicholson), Dr. Hao-Che Ho (Chinese Taipei), Reynaldo L Baloloy (Philippines), Fuqiang Tian (re-activation) (China). The group accepted them as members. Others interested in joining the working group were encouraged to be officially nominated by their national committees through ICID Central Office. Akhmadjonov Vokhidjon Mukhammedjonovich (Uzbekistan) was not present hence, he was accepted as Provisional Member until the next meeting. Membership status is given in **Annex 4** (page 27).

WG-ENV Minutes Item 2: Road Map to ICID Vision 2030 – Status of future activities of the group

3. During the meeting, the group noted that the original proposal was to organize a combined session with WG-CLIMATE, but it was subsequently realized that the interests of the two WGs were not well-aligned, so WG-CLIMATE arranged an independent workshop. An interactive brain-storming session was held to identify key sub-themes and relative case studies for the review paper on ecosystem services of irrigated systems. WG reviewed the Action Plan for WG-ENV and updated the same keeping in view the mandate and availability of resources for achieving various activities (refer **Annex**).

WG-ENV Minutes Item 2.1: Publications of the working group

4. The review paper on ecosystem services provided by irrigated agriculture was extensively discussed during the meeting. Dr Seija Virtanen contributed by email suggesting a revised title for the review paper i.e. "*Analysis of ecosystem services provided by irrigated and controlled drainage agriculture*". The working group members felt that this is a good suggestion and adopted it as the working title. The list of sub-themes for the paper were identified, including potential authors for the different sections. It was proposed that further correspondence via email will be used. It was decided that different case studies would be submitted from WG-ENV members from their own countries under the following tentative sub-themes: (1) Flood control, (2) Water quality enhancement, (3) Wastewater re-use, and (4) Micro-climate control.

WG-ENV Minutes Item 3: Updating Multilingual Technical Dictionary (MTD)

5. An updated list of the MTD with contributions from WG-ENV was forwarded to ICID Central Office at the end of 2018.

WG-ENV Minutes Item 4: Dissemination - Sharing documents on website

WG-ENV Minutes Item 4.1: Website of the group

6. During the meeting, relevant information was identified by WG to update the website. It has been decided that a 'Google Drive' folder will be created for WG-ENV members to share literature on ecosystem services provided by irrigation and drainage systems and to start compiling the review manuscript.

WG-ENV Minutes Item 4.2: Webinar/ Web based seminar

7. After discussion, it was proposed that while a virtual WebEx meeting did not take place during last year, one is being planned for the beginning half of 2020 to discuss progress towards the review manuscript.

WG-ENV Minutes Item 5: Workshop to be organized by the working group

8. The group discussed about the organization of the workshop and considered arranging a Workshop on "Ecosystem services of irrigation and drainage systems" in Australia in 2020, which will give members an opportunity to present and discuss various case studies of ecosystems services for inclusion in the review paper.

WG-ENV Minutes Item 6: International Conference on "Promoting sustainable paddy farming to achieve the SDGs", 20-22 November 2018, Nara City, Japan - Feedback

9. During the meeting, Prof Hatcho and Prof Charlotte provided feedback on their attendance of the PAWEES meetings in Nara, Japan last November 2018. Besides the workshop, Prof. Nobumasa Hatcho (Vice Chair-WG-ENV) chaired the INWEPF Steering Meeting and policy and technical sessions. Later a presentation ceremony for the four ICID World Heritage Irrigation Structures (WHIS), presented to Japan in 2018, was also organized during the Nara conference. The Kurokawa-Shirakawa Land Improve District introduced the Shirakawa Basin Irrigation System, one of the four registered WHIS, outlining its history, technical features and socioeconomic aspects of the irrigation system.

WG-ENV Minutes Item 7: Any other business

10. Active contributions and informative discussions were held during the meeting.

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Annex [Appendix XIII, Item 2]

ROAD MAP TO ICID VISION 2030 – ACTIVITIES OF WORK BODIES

Goals/ Strategies	Activities	Outcomes / Outputs	Milestone for Year 2017	Milestone for Year 2018	Milestone for Year 2019	Milestone for Year 2020	Milestone for Year 2021
Goal A: Enable higher crop productivity with less water and energy							
A6. Strategy: Improving performance of irrigation and drainage systems	6.2 Investigating and documenting positive and negative environmental impacts of irrigation and drainage systems also taking ecosystem services of aquacultures into account.	Guidelines/Case Studies			Structure for review manuscript on ecosystem services of irrigation and drainage	Workshop on ecosystem services of irrigated cropping systems	Published paper on ecosystem services of irrigated cropping systems
	6.6 Improving communication among country members between annual ICID meetings	Online				1 x WebEx meeting	

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

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MINUTES OF THE 1ST MEETING OF THE WORKING GROUP ON IRRIGATION AND DRAINAGE IN THE STATES UNDER SOCIO-ECONOMIC TRANSFORMATION (WG-IDSST)

04 September 2019, 11:15-13:15 hours (Session I)
04 September 2019, 14:00-16:00 hours (Session II)
Bali, Indonesia

Presented by the Chairman

Year of Establishment: 2018 **Completion of the Mandate: 2024**

Mandate: (a) to develop and strengthen the network among the countries of transition on the basis of establishment of monitoring and evaluation of common problems in the States and bring it to the attention of decision-makers in states; (b) to create database and exchange of information about changing situation in Irrigation and Drainage in these States and to attract global and national attention to existing trends affecting global and national food security and wellbeing of rural population; especially related to climate change and ability to adapt to it; (c) to promote implementation of IWRM and broad-basing of stakeholders by popularizing the case studies and best practices explaining the real content of IWRM principles; (d) to monitor the ecological situation in the transition states, including problems of closed basin (Aral Sea, Lake Chad, Lake Victoria, Caspian Sea), rivers deltas, salinization and water logging, land desertification etc.; (e) to collect appropriate advance irrigation and drainage technology for use in transition states and its dissemination through capacity building; to promote involvement young specialists as providers of these innovations; pay specific attention to use of RS technology in I&D; (f) to promote farmer's and WUAs training to create awareness about agricultural water management; (g) to increase the efficiency and functioning of the WG, intensify collaboration with other countries to share best practices and experience for development of irrigation and drainage in the States under socio-economic transformation.

Members Present: (1) Dr. Shukhrat Mukhamedjanov, Secretary (Uzbekistan); (2) Mr. Momir Vranes (Australia); (3) Dr. Katsuyuki Shimizu (Japan); (4) Engr. Peter Yakuba Manjuk (Nigeria); (5) VPH Irene Bondarik represented Dr. Alexander Solovyev (Russia); (6) Dr. (Ms.) Ya-Wen Chueh (Chinese Taipei).

Observers: (1) Vice President Naoki Hayashida (Japan); (2) Arie Pratama (Indonesia); (3) Shin Takano (Japan); (4) Kenji Miyagawa (Japan); (5) Iliya M. London (Nigeria); (6) Bashir Baba (Nigeria); (7) Kenneth S. Sunmona (Nigeria); (8) Bakhrom Gaforzoda (Tajikistan); (9) Dilshod Kimsanov (Tajikistan); (10) Yi-An Hsieh (Chinese Taipei); (11) Iuliia Danylenko (Ukraine).

WG-IDSST Minutes Item 1: Introduction by the Chair

1. On behalf of the Chairman VPH Peter Kovalenko, and Co-chair VPH Victor Dukhovny, the Secretary Dr. Shukhrat Mukhamedjanov conducted the meeting as 'Chair' and welcomed the members.

2. The WG reviewed the membership nominations received from the Australian National Committee and Chinese Taipei Committee. Both the nominees i.e. Mr. Momir Vranes from Australian Committee on Irrigation and Drainage (IACID) Dr. (Ms.) Ya-Wen Chueh from Chinese Taipei Committee (CTCID) were present at the meeting. Both nominees were accepted as members of the WG unanimously. Membership status is given in **Annex 4 (page 27**).

3. The WG discussed about the use of the WebEx platform for virtual meetings in order to ensure the regular contribution of WG members between two regular meetings. The Working Group discussed this issue and decided that the WG will organize a video-conference/ WebEx meeting on 15 November 2019 at 12.00 hours (Tashkent time). It was proposed to discuss about the issues of the WG work plan for the next few years, taking into account the new mandate on the basis of the plan proposed by the WG leadership presented and discussed during the Bali meeting. Also, during the video conference meeting, Mr. Momir Vranes would provide information on the achievements of irrigation in Australia.

WG-IDSST Minutes Item 2: Road Map to ICID Vision 2030 – Activities in the States under socio-economic transformation

4. During the meeting, Chair asked the members of the working group from Tajikistan to provide information on these issues. At Bali meeting, the WG once again discussed the WG's work plan in accordance with the ICID vision, taking into account the new mandate of the WG and the new members of the WG. Members of the WG made additions to the "road map" of ICID Vision 2030 - Activities in countries in the process of socio-economic transformation. The updated ICID Vision 2030 plan is given as **Annex 1**.

5. The working group discussed the proposed roadmap under the leadership of Dr. Shukhrat Mukhamedjanov. During discussion, representative from Nigeria Engr. Peter Yakuba Manjuk, and the representative from Australia Momir Vranes made suggestions. On the part of Nigeria, it was proposed to include issues related to irrigation and water use problems in small-scale farms while representative of Australia proposed to include additional issues in the first paragraph of the first goal. It was proposed that the final version of the roadmap will be submitted to the ICID Central Office two to three weeks after the meeting.

WG-IDSST Minutes Item 3: Discuss and develop work plan based on new mandate

6. During the meeting, members discussed the WG work plan taking into account the new mandate. It was decided that at the next meeting of WG-IDSST, the National Irrigation and Drainage Committee i.e. Uzbekistan should provide information on activities such as ongoing research and the most important intellectual technologies used by them (if any). The Chairman requested members of the WG group to provide information on behalf of their NC on this issue.

7. After the discussion, the Chair presented the updated work plan based on the new mandate (refer **Annex 2**). The work plan based on the new mandate was prepared by the WG Chair and presented for discussion to the members of the working group. The members of the working group familiarized themselves with the presented plan and it was decided to prepare their proposals or additions and submit it for discussion during the video conference of the working group in November 2019. Each member of the working group was provided with a copy of the work plan.

WG-IDSST Minutes Item 3.1: Develop and strengthen the network among the transition states

8. During the meeting, WG discussed the development and strengthening of communication between countries with economies in transition. It was proposed that first, the members of the working group agreed to hold a video conference twice in a year with assistance from the ICID Central Office where current issues will be discussed according to the group's work plan

9. Secondly, under the leadership of the WG (V*PH* Dukhovny)*, it was proposed* to use the ICID window in *the* websit*e of* CAWATER *information* through which *WG members* could communicate and discuss *their* issues after *Bali* meeting. Scientific Information Center of the Interstate Coordination Water Commission of Central Asia (SIC ICWC) have CAWater Information on their website. This website is easily accessible, where "Water World" window is divided into several topics, one of which is International Water Organizations, there are several organizations including a window for ICID. This window has given free access for any information from any country and can also be uploaded information on this page. Members agreed to use this website for connecting other countries.

WG-IDSST Minutes Item 3.2: Database of I&D in the states in transition

10. During the meeting, Dr. Shukhrat Mukhamedjanov explained that the I&D base in countries with economies in transition is all about information on I&D situation in the countries - problems, ways to solve these problems, technologies to improve governance, and so on.

11. The representative of Tajikistan, Bahrom Gafarzoda, proposed not to call it a database and suggested an exchange of experience materials from each country or something like that. Everyone agreed that within the framework of this section, the working group will carry out a set of experience, technologies, an assessment of the situation, etc. The information received will be provided to all interested countries in accordance with their interests. It was proposed that this database can be posted on the ICID website under CAWATER Info website where it will accessible to all members of the working group and other interested parties.

WG-IDSST Minutes Item 3.3: Case studies and best practices of IWRM

12. Dr. Shukhrat Mukhamedjanov presented the information on the activities of SIC ICWC. Over the past 4 years, specialists from Central Asia (SIC ICWC, Urgench State University, Kazakh-German University, together with the University of Würzburg and the Potsdam GFZ Center) have actively promoted the introduction of water supply and irrigation practices. As a result, the WUEMOCA (Water Use Efficiency Monitoring) tool was created, which have data on land use, productivity, water use efficiency and distribution throughout the Central Asian state. Mr. Momir Vranes shared the experience of Australia, where IWRM is based on the possibility of selling water, that is, water is considered as a product. For each level of water use and water users, prices can be different.

WG-IDSST Minutes Item 3.4: Monitor and evaluate the ecological parameter in transition countries

13. Chair WG IDSST suggested that during ICID Congress 2020, each country will provide information on the environmental situation in river deltas, salinization and logging of the land in their countries. In this respect, the WG management will contact the members of the working group on these issues through e-mail. This information is very important for all to evaluate how our problems are identical and how we can solve them. Members agreed with the Chair's proposal.

14. A presentation on the situation in the Aral Sea was made by the Head of the Global Fund at the "Interstate Fund for Saving the Aral Sea" by Vadim Sokolov. In the presentation, Sokolov touched upon the history and current state of the Aral Sea, the measures taken by Uzbekistan and personally by the President of Uzbekistan Shavkat Mirziyoyev.

WG-IDSST Minutes Item 3.5: Capacity building in transition countries

15. The Working Group discussed about the capacity-building in countries with economies in transition at the meeting. The representative of Japan, Katsuyuki Shimizu, presented the presentation of the JICA Training Courses on "Appropriate Management of Land and Water Resources for Sustainable Agriculture in Arid/Semi-arid Regions (A) and (B)" at Tottori University. The leadership of the WG represented by Shukhrat Mukhamedzhanov agreed to send full information about the training courses in Japan to all members of the WG.

WG-IDSST Minutes Item 4: Any other business

16. The meeting ended with thanks to the Chair.

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Annex 1 [Appendix XIV, Item 2]

ROAD MAP TO ICID VISION 2030 – ACTIVITIES OF WORKBODIES

Goals/ Strategies	Activities	Outcomes/ Outputs	Milestone for Year 2019	Milestone for Year 2020	Milestone for Year 2021	Milestone for Year 2022	Milestone for Year 2023
Goal A: Enable higher crop productivity with less water and energy							
	Development of drip irrigation systems and technologies in countries	Widespread adoption of water saving technologies in countries		1. Overview of water saving technologies in countries. 2. Exchange of experience	Methods and tools to reduce unproductive losses in irrigation. Assessment of water availability in Central Asia based on WUEMOCA		
Goal B: Be a catalyst for change in policies and practices							
	Publication	Technical paper	A review of the experience of leading countries in the effective management of water resources	Overview of scientific advances in countries to reduce unproductive losses in irrigation.			
Goal C: Facilitate exchange of information, knowledge and technology							
C1. Strategy: Providing Knowledge-sharing Platform for AWM Professionals	1.4 Organize workshop for IDSST	Workshops	Organize workshop		Organize workshop		
C4. Strategy: Compile, Collate and Share Knowledge and Experiences	4.18 Maintain an updated database on irrigation and drainage in the countries of transition	Database	Compile database	First draft of database	Final draft of database		
Goal E: Encourage research and support development of tools to extend innovation into field practices							
	Interaction between countries in studies of remote monitoring of water resources and water use	Introduction of remote sensing and remote control of water use and water resources management	Research and exchange of experience between countries in the widespread introduction of remote sensing in monitoring water metering at water bodies	Research and exchange of experience between countries in the widespread introduction of remote sensing in monitoring irrigated fields and crops			
Goal F: Facilitate capacity development							
F3. Strategy: Technical Training of Young Professionals from Member Countries	3.6 Organize training Workshop	Training Workshop	Organize Training Workshop		Organize Training Workshop		

Annex 2 [Appendix XIV, Item 3]

WG-IDSST Work Plan

Activities	Outcomes/ Outputs	2020	2021	2022
(a) to develop and strengthen the network among the countries of transition on the basis of establishment of monitoring and evaluation of common problems in the States and bring it to the attention of decision-makers in states;	Created Web-Portal for continuous communication between countries	1. Based on the Web Sit CAWATER.Info http://cawater-info.net/water_world/index.htm create an ICID window, WG IDSST. 2. Exchange of information on monitoring and evaluation of common problems.	Web Portal Development	Web Portal Development
(b) to create database and exchange of information about changing situation in Irrigation and Drainage in these States and to attract global and national attention to existing trends affecting global and national food security and wellbeing of rural population; especially related to climate change and ability to adapt to it;	Exchange of experience and information between countries on changing situations	1. Exchange of experience and information between countries on changing situations in irrigation and drainage in countries. 2. Information in countries in irrigation and drainage due to climate change.	1. Exchange of experience and information between countries on changing situations in irrigation and drainage in countries. 2. Information in countries on adaptation of irrigation and drainage and agriculture to climate change.	1. Exchange of experience and information between countries on changing situations in irrigation and drainage in countries.
(c) to promote implementation of IWRM and broad-basing of stakeholders by popularizing the case studies and best practices explaining the real content of IWRM principles;	Publication	Widespread adoption of IWRM principles in countries	Overview of countries' experiences in implementing IWRM	Obstacles in countries in implementing IWRM
(d) to monitor the ecological situation in the transition states, including problems of closed basin (Aral Sea, Lake Chad, Lake Victoria, Caspian Sea), rivers deltas, salinization and water logging, land desertification etc.;	Overview of environmental monitoring results in countries, including closed basins problems	Collection of monitoring information and facilitate in their implementation	2. Exchange of experience	2. Exchange of experience and decision
(e) to collect appropriate advance irrigation and drainage technology for use in transition states and its dissemination through capacity building; to promote involvement young specialists as providers of these innovations; pay specific attention to use of RS technology in I&D;	Countries have access to information from other countries through the Web-portal on advanced technologies in irrigation and drainage. Young professionals trained to spread innovation	Overview of advanced water-saving technologies and remote sensing tools in countries	2. Exchange of experience	Overview of scientific advances in countries to reduce unproductive losses in irrigation.
(f) to promote farmer's and WUAs training to create awareness about agricultural water management;	Training materials and modules prepared for farmers and WUAs in countries	A review of existing methods, approaches, technologies that allow effective management of irrigation water at the level of WUA farms.	2. Exchange of experience	Preparation of training modules from each country for training farmers and WUAs on advanced water use technologies

Activities	Outcomes/ Outputs	2020	2021	2022
(g) to increase the efficiency and functioning of the WG, intensify collaboration with other countries to share best practices and experience for development of irrigation and drainage in the States under socio-economic transformation.	Develop and strengthen the network	Establishment of communication between countries on the rapid exchange of information Web-Portal organization.	Exchange of experience between countries on the effective management of water resources	Exchange of experience between countries on methods and tools to reduce unproductive losses in irrigation.

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MINUTES OF THE THIRD MEETING OF THE WORKING GROUP ON MANAGING WATER SCARCITY UNDER CONFLICT DEMANDS (WG-MWSCD)

05 September 2019, 09:00-11:00 hours (Session-I)
05 September 2019, 11:15-13:15 hours (Session-II)
Bali, Indonesia

Strategy Theme: Basin

Presented by the Chairman

Year of Establishment: 2016 **Completion of the Mandate: 2022**

Mandate: Collect information, knowledge and, where available, case histories on actions taken to manage water systems to accommodate a change in priority of water use or due to conflicting demands: (a) Information will be collected on three levels of water management; (i) National, (ii) area or basin; and (iii) local; (b) review and analyze information to determine any commonality; (c) prepare and present reports and/or case studies on recent development in the countries that are represented in the WG; (d) organise international workshop on the topic; and (e) prepare an overview paper on the topic for publication.

Members Present: (1) Mr. V.C. Ballard (Australia), Vice-Chairman; (2) VPH Ragab Ragab (UK); (3) Dr. Takanori Nagano (Japan); and (4) Dr. Jan Ming-Young (Chinese Taipei).

Observers: (i) Mr. Muhammed Imran Kulat (Turkey); (ii) Mr. Ali Gokyel (Turkey); (iii) Mr. David Florentino (Philippines); (iv) Dr. Mikiko Sugiura (Japan); (v) PH Peter S Lee (UK); and (vi) Ir. Kaan Tuncock (Turkey).

Website: http://www.icid.org/wg_drought.htmal

WG-MWSCD Minutes Item 1: Action Take Report by Chair

1. Mr. Clarke Ballard (Australia), Vice-Chairman of the WG conducted the meeting as Chair, welcomed all the members present and informed that Chairman VPH Franklin Dimick (USA) and Secretary Dr. Jaepil Cho (Korea) were unfortunately unable to attend the meeting. Mr. Ballard presented the report on the actions taken on the decisions and proposals of the WG at its last meeting at Saskatoon, Canada in August 2018.

2. The main activity undertaken since the last meeting was to encourage members, or others, to prepare papers on 'managing conflicting demand for water at the national level' for presentation at the internal workshop in 2019 at Bali, Indonesia. Six people eventually indicated they would prepare papers, which was fewer than hoped for.

3. A planned WebEx meeting of the WG could not be held because too few members were available to participate in the meeting.

4. The group reviewed membership and provisionally admitted Mr. Veysel Yildiz (Turkey) in place of Dr. Hakan Aksu. Mr. Yildiz was not present. The group also recommended termination of the membership of the following as they have not contributed to the activities of the WG for more than one year:

- Mr Mohammad Sadegh Jafari (Iran)
- Dr Graziano Ghinassi (Italy)
- Mr Sudharkar (Direct Member-India)
- Ms Jianxin Ju (China), Provisional Member
- Mr. Raquib Khan (Pakistan), Provisional Member

5. New nominations for the membership were received from Ir. David Florentino (Philippines) and Dr. Mikiko Sugiura (Japan), both of whom were present during the meeting. They have shown their interest for the member of the WG and they were provisionally accepted. In this regard, they were advised to confirm their nominations from their National Committees. The membership status is given in **Annex 4 (page 27).**

WG-MWSCD Minutes Item 2: Road Map to ICID Vision 2030: Status of activities on Managing Water Scarcity under Conflict Demands

6. During the Bali meeting, the group reviewed the roadmap and confirmed, with the addition that a final presentation should be arranged on completion of the WG mandate in 2022.

WG-MWSCD Minutes Item 3: Updating Multilingual Technical Dictionary (MTD)

7. There was no progress in the WG meeting.

WG-MWSCD Minutes Item 4: Internal Workshop on 'Managing on the National Level, Water Scarcity Resulting from Conflicting Demands'

8. The WG organized an internal workshop on 'Managing on the National Level, Water Scarcity Resulting from Conflicting Demands' on 05 September 2019 at Bali, Indonesia. Six presentations were made during the meeting as indicated below.

(a) VPH Franklin E. Dimick (USA) (*presented by PH Peter S Lee*): "Reducing impacts of water scarcity in the Colorado River, United States and Mexico"

(b) Muhammed Kulat (Turkey): "Turkish experience on managing conflicting demands"

(c) David Florentino (Philippines): "Managing on the national level water scarcity resulting from conflicting demands in the Philippines"

(d) Clark Ballard (Australia): "Management of the Murray-Darling Basin, Australia".

(e) Kaan Tuncok (Turkey): "Community driven risk management to address water security under competing demands".

(f) VPH Ragab Ragab (UK): "Water scarcity predictions in 7 catchments across the UK".

WG-MWSCD Minutes Item 5: Exchange of Information, Knowledge & Networking

WG-MWSCD Minutes Item 5.1: Website of the WG

9. During the Bali meeting, the WG members noted and appreciated efforts of Dr. Jaepil Cho (Korea) for setting up the WG website. In this regard, the WG members were urged to submit contents of the activities of the WG like articles, papers, etc. to Dr. Jaepil Cho for inclusion on the website.

WG-MWSCD Minutes Item 5.2: Webinar / Web-based Seminar

10. This item was not discussed due to not enough members available.

WG-MWSCD Minutes Item 6: Any other business

11. Dr Jan Ming-Young (Chinese Taipei) advised in the WG meeting that he had prepared and circulated a questionnaire on various aspects of the WG's work but he has received no response. No other members of the group were also aware of this item. He was asked to send it to the Chair and Vice Chair of the WG for attention.

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MINUTES OF THE 2nd MEETING OF THE
WORKING GROUP ON SUSTAINABLE DEVELOPMENT OF TIDAL AREAS (WG-SDTA)

05 September 2019: 09:00-10:30 hours (Session-I)
05 September 2019: 11:15-13:15 hours (Session-II)
Bali, Indonesia

Strategy Theme: Basin

Presented by the Chairman

Year of Establishment: 2017 **Extended the completion of the Mandate: 2023**

Mandate:

(a) To understand the existing and potential challenges and opportunities of tidal areas for now and the future by figuring out underlying issues;
(b) To raise awareness of the increasing risk on tidal areas due to global climate change and stimulate interdisciplinary discussions on impacts, mitigation, and adaptation
(c) To enhance survey, design techniques, and monitoring and management programs for the irrigation and drainage facilities, and apply to collect information about the tidal area environment around the world;
(d) To identify sustainable development and management options in tidal areas, and find a balance between the conservation and development of tidal areas with acknowledgement of ecosystem services;
(e) To join the international dialogues and organize international conferences and short courses to promote interdisciplinary and participatory land and water planning and management in tidal areas;
(f) To collaborate with other related working groups actively, and to exchange relevant experiences amongst NCs and support for developing, and least developed countries.

Members Present: (1) Dr. Ruey-Chy Kao, Chairman (Chinese Taipei); (2) Dr. Nor Hisham M. Ghazali, Secretary (Malaysia); (3) Dr. Hsiao-Wen Wang (Chinese Taipei) represented by Adrienne Dodd; (4) Prof Budi Santoso Wignyosukarto (Indonesia); (5) Dr. Jeongryeol Jang (Korea); (6) Prof Zhang Zhan-Yu (China); (7) Dr. Ikuo Yoshinaga (Japan); and (8) Dr. Vijay K. Labhsetwar, (India).

Observers: (1) Jae-Sang Jung (Korea); (2) Jung-Hsing Tsai (Chinese Taipei); (3) Ching-Feng Ding (Chinese Taipei); (4) Jalal Aboolhassani (Iran); (5) Iwan Nursyirwan (Indonesia); (6) Momon S. (Indonesia); (7) Shinsuke Ota (Japan); (8) Naoki Hayashida (Japan); (9) Made (Indonesia); (10) I Putu Abdi Rio Wisesa (Indonesia); (11) Mawiti Infantri Y. (Indonesia); (12) Mamoku Watanabe; (13) Atty. Ailyne C. Agtuca-Selda (Philippines); and (14) PH Bart Schultz (The Netherlands)

Website: http://wg-sdta.icidonline.org

WG-SDTA Minutes Item 1: Introduction of new Working Group

1. The WG Chair Dr. Ruey-Chy Kao (Chinese Taipei) welcomed all the members and participants. WG Chair introduced what presentations would occur during the WG-SDTA meeting.

2. WG Chair Dr. Kao briefed on the new mandate of the WG (as above) and various activities of the Group with his presentation i.e. “The latest status of WG-SDTA”.

3. WG Chair presented four recommendations for sustainable management of coastal areas as:

(a) Need to find balance between development and conservation through including updated professional techniques, public monitoring data, as well as stakeholder communication.
(b) In order to reduce the loss of property and lives, constructing intelligent flood control systems would be a solution by integrating the rainfall information in upstream catchments, the waterway monitoring systems of middle/ downstream and the potential flood simulation and tidal level prediction model of downstream.
(c) Avoid problems such as land subsidence and flooding caused by bad management (over pumping ground water and allowing drainage systems to become outdated and dilapidated) by utilizing modern technologies like Cyber-Physic System (CPS) and IOT.
(d) Promote complete management of irrigation, drainage, flood control and underground water by combining newest technologies of ICT, IOT, CPS, and data techniques

4. The members of the WG shared their comments and recommendations as suggested by WG Chair:

(a) Dr. Momon Sodik Imanudin (Indonesia) suggested that new technologies which is necessary to include conservation and habitat types in the plans. It is also important to address salination and sedimentation problems which make maintenance and operation cost very high. Dr. Budi Santoso Wignyosukarto noted that tidal lowlands in the province of Indonesia must consider fresh water supply as well as pollution in drainage from industrial areas.

(b) Dr. Budi Santoso Wignyosukarto (Indonesia) suggested that it is time to develop a Cyber-Physics System (CPS) and construct a description of how to use this as well as other big data systems for coastal management.

5. During the meeting, the WG considered these proposals, as above, in the agenda for 2023. Further discussion on these issues, and how to include them, will occur through email and Web seminar. Dr. Nor Hisham M. Ghazali (Malaysia), Secretary of the group will be responsible for more detailed planning.

6. Nomination of Dr. Surat Thanusin (Thailand) for the membership of WG-SDTA was accepted as a WG member during the meeting. WG welcomed Dr. Surat for the active member in the group. Membership status is given in **Annex 4 (page 27)**.

WG-SDTA Minutes Item 1.1: A brief report of Online/WebEx Meeting of the Group, 29 January 2018

7. WG Chair provided a brief report of Online/WebEx meeting of the WG. Chair urged more members to join these meetings in order to improve efficiency and ability for members to discuss without needing to travel. This makes meetings more accessible to all members.

WG-SDTA Minutes Item 2: ICID Action Plan 2030: Activities on Sustainable Development of Tidal Areas

8. At Bali meeting (2019), the WG reviewed the Action Plan 2030 (Road Map to ICID Vision 2030) based on the new mandate (refer **Annex**). WG members reviewed and agreed to four recommended important topics presented by the Chairman should be focused on the SDTA working group. (*see para 3*).

9. WG Chair suggests WG-SDTA extend the SDTA program for the year 2023 as the WG mandate was extended to 2023 but the program has not yet been updated. Chair invited members to join meeting to review and revise the program. Further discussion can also occur over email and in WebEx Meeting. Timing of the meeting is not yet set but will be announced soon.

WG-SDTA Minutes Item 3: Upcoming WG Events

WG-SDTA Minutes Item 3.1 International Workshop on 'Integrated Development of Tidal Areas – An Exchange of Expertise from Basin Perspective', September 2019 at Bali, Indonesia

10. The International Workshop on Integrated Development of Tidal Areas – An Exchange of Expertise from Basin Perspective' was held on 1st September 2019 at Bali, Indonesia. Following full papers were received from 8 coastal countries, including The Netherlands, Japan, Korea, Chinese Taipei, India, Malaysia, Indonesia and Pakistan:

(a) "Climate change impact on irrigation in Mekong Delta of Vietnam" by Dr. Koji Kitamura (Japan);

(b) "Role of safety standards and land subsidence in sustainable integrated development and management of tidal areas an inventory" by PH Bart Schultz (The Netherlands);

(c) "Seawater Intrusion into a Three-dimensional Groundwater System at a Coastal Low and Intermediate Level Radioactive Waste Disposal Site" by Chansung Oh, Hanyong Um and Jeongryeol Jang;

(d) "Strategies for promoting the sustainable development of land and water resources in the tidal areas of Southwestern Taiwan" by Chung-Feng Ding, Yu-Ching Lin, and Reuy- Chi Kao;

(e) "Water management objectives for second crop cultivation after rice in tidal lowland of type a (a case study on Telang I South Sumatera Indonesia)" by Momon Sodik Imanudin, Yaswan Karimudin and Adang Saf Ahmad;

(f) "A Study of Numerical analysis of hydraulic characteristics in the various type of FISHWAYS" by Choong Hun Shin, Eunchel Jang and Jeong-Ryeol Jang;

(g) "Integrated Tidal Irrigation Management in southern coastal Bangladesh through ECRR- Case Studies of Success in Polder 52/53B (Rangabali)" by GM Akram Hossain Peng & Md. Habibur Rahman;

(h) "Drainmod Model Adaptation for developing recommendations to maintain water table in the tertiary block of tidal lowland reclamations areas (A Case Study in Sugihan Kanan Under Corn Cultivation)" by Momon Sodik Imanudin, Bakri and Suparji;

(i) "Integrated Development of Tidal Areas – An Exchange of Expertise from Basin Perspective (A case study of Indus Basin: Integrated Development of Tidal Area)" by Naseer Ahmad Gillani;

(j) "Participatory Mapping of Ecosystem Services of Coastal Wetlands in Taiwan" by Hsiao-Wen Wang and Adrienne Dodd;

11. In view of above, ten of the papers were presented during the International Workshop of the WG, unfortunately, Engr. Nasir Gillani from Pakistan was unable to attend the workshop. Dr. Nor Hisham M. Ghazali (Malaysia) gave an overview of the presentations during the workshop. The workshop was very successful in allowing young professionals to meet and understand what other researchers in other countries are experiencing in order to broaden each individuals' understanding. The workshop highlighted the need for more discussion on protection of coastal tidal areas in terms of safety from disasters as well as conservation in order to achieve sustainability.

WG-SDTA Minutes Item 3.2 Short Course titled 'Tidal Prediction and Typhoon Wave Model' in December 2019 at Chinese Taipei

12. WG Chair Dr. Ruey-Chy Kao introduced the importance of improving coastal protection through Tidal Prediction and Typhoon Forecasting. WG Chair introduced the proposed workshop titled "Tidal Prediction and Typhoon Wave Model' to be held in December 2019 at Chinese Taipei and invited all members of the WG. WG Chair highlighted the importance of looking at both safety and conservation for sustainable management of coastal areas.

13. WG Chair Dr. Ruey-Chy Kao suggested that the proposed workshop's time be changed to spring time, after Lunar New Year. The exact date and time to be decided later.

WG-SDTA Minutes Item 3.3 Side Event on 'Global challenges of land subsidence in tidal areas and the integrated solutions during WIF3

14. This year, a Side Event on 'Global challenges of land subsidence in tidal areas and the integrated solutions' was deferred to a future time.

15. WG Chair informed the members that WG-SDTA needs to focus on addressing issues of land subsidence in coastal areas, and suggested that this working group focuses on: (1) Sharing information and experiences; (2) Addressing methods on how researchers can collaborate with government stakeholders; and (3) Clarify the causes of land subsidence in different regions (erosion, heavy loading, ground water pumping etc.). The comments are as under:

(a) Dr. Momon Sodik Imanudin (Indonesia) proposes a 'Short Course' in March 2020 in Indonesia as there is a program working in collaboration with the government.

(b) WG Chair Dr. Kao informed that his research team in Chinese Taipei has many years' experience working with the government to focus on land subsidence research and action, and agrees it is an important issue for a short course.

(c) Dr. Budi Santoso Wignyosukarto (Indonesia) informed the WG will have a short course focusing on land subsidence.

(d) Dr. Shinsuke Ota (Japan) informed that in Japan major cities had land subsidence issue due to over pumping of ground water. Japan took measures to start irrigation earlier in the year, so the water table can be recovered. There is now also regulation on industry and drinking water pumping.

16. It was decided that Dr. Nor Hisham M. Ghazali, Secretary of the WG will be responsible for proposing the date and time for the future side events.

WG-SDTA Minutes Item 3.4 Web-based seminars and e-Discussions (2019)

17. During the meeting, the WG noted that two Web-meetings were held in 2018 and 2019 and several e-Discussions have been occurred. Further, the WG included Web-based seminars, but these have been put on hold due to changes in the mandate and program schedule. Further, the WG informed that the web-based seminars are in planning process.

WG-SDTA Minutes Item 4: Ground Water and the Land Subsidence on the Coastal Areas

18. WG Chair invited Dr. Ching-Feng Ding to present on experience on ground water and land subsidence in Chinese Taipei. Dr. Ding introduced the national plan for addressing land subsidence and monitoring flooding and

introducing smart management techniques. Dr. Ding also talked about the importance of citizen monitoring systems and inclusion of local people in monitoring and management planning methods.

19. WG Chair invited Dr. Ikuo Yoshinaga to present on experience of land subsidence in Japan. Dr. Ikuo gave a summary of land subsidence in Japan, starting in 1920's and both the 1956 Act and the 1962 Act to regulate ground water pumping, and while subsidence has almost stopped, it will never be recovered.

20. The WG members discussed and agreed to pursue groundwater and land subsidence issues.

WG-SDTA Minutes Item 5: Dissemination of activities of WG

21. During the meeting, Dr. Nor Hisham M. Ghazali, Secretary of the WG gave a presentation sharing experience in managing coastline in Malaysia, especially in terms of erosion monitoring, risk assessment and management. Dr. Hisham noted in his presentation that the importance of Institutionalizing coastal management into the government, using structural and non-structural measures, categorizing erosion and considering timing of funds in management plan.

22. PH Dr. Bart Schultz (The Netherlands) enquired what the width of an effective mangrove belt must be. Dr. Hisham suggested that there is not a good understanding, and while the government suggests there must be 400m belt but in reality, most are at most 200m.

23. Dr. Iku Yoshinaga (Japan) again presented on experiences from Japan on flood management. Dr. Iku noted that the importance of the management of lowlands, agriculture land, and the importance of strengthening policies and research and development for disaster risk management. Dr. Ikuo also talked about Tsunami disasters in Japan and its damage situations, effective measures and restoration methods.

(a) WG Chair enquired: After Tsunami, how do you reclaim the land? Especially, when salination occurs. Dr. Iku informed that this is usually not a serious issue, as rain will wash out saline area. So, unless it is a very low-lying area, it is not such a big problem in Japan. This is also dependent on good drainage.

(b) PH Dr. Schultz pointed out that Dr. Iku showed rainfall has increased, and damages have also increased, which are correlated, but that we also need to note the relationship to land use changes. Dr. Schultz pointed out that Dr. Iku showed that agricultural land also has decreased. Usually, this is paired with increased urbanization, and increased monetary value of land, which may also be partially responsible to increase of damages.

WG-SDTA Minutes Item 6: Updating Multilingual Technical Dictionary (MTD)

24. In December 2018, ICID CO requested Dr. Iku Yoshinaga to take a lead in the activity of updating Multilingual Technical Dictionary (MTD). Dr. Iku Yoshinaga informed the members that the team is focusing on updating the existing English dictionary. Translation into other languages will be the responsibility of each country. Dr. Vijay K. Labhsetwar from ICID Central Office requested Dr. Iku to send an email to clarify responsibilities.

WG-SDTA Minutes Item 7: Cooperation between Institutions from Chinese Taipei and Korea

25. The MoU was signed in 2016 between the Rural Research Institute (RRI) of Korea Rural Community Corporation (KRC), Republic of Korea and Tainan Hydraulic Laboratory (THL) of National Cheng Kung University (NCKU). This collaboration has been very successful, so it has been extended. In November 2018, this partnership was updated and the current memorandum now included the President of NCKU and the CEO of KRC. During the Bali meeting (2019), the research team met and discussed research focus and next steps. This collaboration is seen as a demo for collaboration, and if successful can be used in other areas.

WG-SDTA Minutes Item 8: Any other business

26. WG Chair enquired the Philippine representative about the possible future participation of their National Committee in WG-SDTA.

27. Dr. Vijay Labhsetwar suggested the members to put together 2-page country papers for SDTA. The data which can be organized in tables comparing different factors. It is suggested a questionnaire be created in a format for the country papers.

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Annex [Appendix XVI, Item 2]

ROAD MAP TO ICID VISION 2030 – ACTIVITIES OF WG-SDTA

	Activity	Outcomes/ Outputs	Milestone for Year 2017	Milestone for Year 2018	Milestone for Year 2019	Milestone for Year 2020	Milestone for Year 2021	Milestone for Year 2022
Goal B: Be a catalyst for change in policies and practices								
Strategy B1 : Supporting Development of Appropriate Policies	1.1 Promoting Sophisticated water-saving irrigation development with IOT and water-saving irrigation model techniques exchanges	Technical report, workshop proceedings and water industry web site	Preparing: Promoting demonstrative plan	Site tests demonstration: Hardware construction and software tests	Site tests demonstration: Hardware, software and system control integrating process	Site tests plan: Workshop observation	Examination Plan results & improvement	Examination Plan results & improvement
	1.2 Promoting up-to-date water-saving experience exchange	As above	As above	As above	As above	As above	As above	As above
	1.10 Sustainable drainage management experience exchange	Internet of Things Water industry workshop						
Goal C: Facilitate exchange of information, knowledge and technology								
Strategy C4 : Compile, Collate and Share Knowledge and Experiences	4.26 Special Issue of ICID Journal on SDTA	Special issue of IRD	Announcement of special issue, inviting authors etc.	Setup Review Committee for selected papers based on the workshops	Submission of final drafts		Publishing Special Issue of IRD	
Strategy C5 : Dissemination of Data, Information, Tools, Knowledge and Know How	5.8 Develop and maintain the ICID web site as a knowledge hub	On-line						
Goal E: Encourage research and support development of tools to extend innovation into field practices								
Strategy E3 : Develop and Promoting Tools for AWM	3.2 The application for output of development tools from academic institutions			Prepare tidal prediction and typhoon wave model				
Goal F: Facilitate capacity development								
Strategy F3: Technical Training of Young Professionals from Member Countries	3.7 worksh/Training Workshop on Sustainable Development of Tidal Areas	Technical transfer and internet information short course /training workshop	Scope, theme and announcement		Short Course/Training Workshop on SDTA		Short Course / Training Workshop on SDTA	Short Course / Training Workshop on SDTA
	3.8 To launch e-Discussion on Sustainable Development	E-discussion	E-discussion on Sustainable Development of Tidal Areas		e-Discussion on SDTA		e-Discussion on SDTA	

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

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MINUTES OF THE 4TH MEETING OF THE WORKING GROUP ON CAPACITY DEVELOPMENT, TRAINING AND EDUCATION (WG-CDTE)

05 September 2019, 14:00-16.00 hours (Session I)
05 September 2019, 16.15-18.15 hours (Session II)
Bali, Indonesia

Strategy Theme: Knowledge

Presented by the Chairman

Year of Establishment: 2015 **Completion of the Mandate: 2021**

Mandate: (i) Coordinate and guide the knowledge management activities of the Commission and the capacity development activities by various WGs; (ii) Compile the status of training and educational programmes offered in different regions; (iii) Compile the Educational Programs being offered in irrigation and drainage in different regions; (iv) Identify the training and education requirements, and identify gaps in available training programs, explore the feasibility of developing e-learning program and prepare guidelines for their development to support education and training programmes; (v) Explore the scope of use of IT in capacity development including distant learning, and implement where feasible; (vi) Make available various tools required for sustainable development; (vii) Oversee the establishment and functioning of a Technical Support Unit for supporting NCs; and (viii) Facilitate the process of balancing education and training requirements, and provision of training services.

Members Present: (1) Dr. Shinji Fukuda (Japan) represented by Dr. Mikiko Sugiura (Japan); (2) Dr. Sahdav Singh, Director (KM); and (3) Dr. Vijay K. Labhsetwar (India).

Observers: (i) Wen-Pin Shu (Chinese Tapiei); (ii) Dato' Ir. Haji Hanapi Bin Mohamad Noor (Malaysia); (iii) Abin Lee (Korea); (iv) Sang Hee Park (Korea); (v) Garba Bello (Nigeria); (vi) Mohammed Olushola Hasimiyu (Nigeria); (vii) Ir. Dupe Bello (Nigeria); (viii) Si Moon Kim (Korea); (ix) Gapar Asan (Malaysia); (x) Dr Elijah Aderibigbe (Nigeria); and (xi) Sunmom K.S. (Nigeria).

Website: http://www.icid.org/wg_cdte.html

WG-CDTE Minutes Item 1: Action Taken Report by Chair

1. Since the Chair and Vice Chair of the WG could not attend the meeting, Dr. Mikiko Sugiura from Japan was co-opted as acting chair of the group to conduct the meeting with the support of Dr. Sahdev Singh, Director (Knowledge Management) of ICID.

2. The WG reviewed the membership of the group which included two new nominations viz. (i) Dr. Wen-Pin Shu (Chinese Taipei); and (ii) Dato' Ir. Haji Hanapi Bin Mohamad Noor (Malaysia) were accepted as Members. Membership status is given in **Annex 4 (page 27)**.

WG-CDTE Minutes Item 2: Road Map to ICID Vision 2030 – Status of Activities on capacity development, training and education

3. The group discussed and reviewed the Action Plan of Road Map to ICID Vision 2030 (refer **Annex**) based on the mandate and the group decided to review it during the next meeting either virtual meeting through WebEx or next face-to-face meeting in September 2020 at Bali, Indonesia due to absence of WG Chair, Vice-Chair *and other members of the WG.*

WG-CDTE Minutes Item 3: Promoting capacity development, training and education

WG-CDTE Minutes Item 3.1: Updates on activities of Technical Support Unit (TSU)

4. The WG was apprised on the latest status of Technical Support Programme (TSP) activities. It was informed that TSU was established in 2016 with the overall objective to "undertake capacity development activities in the field of agricultural water management (AWM) in support of rural development" for the national stakeholders. WG appreciated the Korean Rural Community Corporation (KRC) and Korea National Committee of ICID (KCID) for their support the activities of Technical Support Programme (TSP). WG also appreciated IRNCID for supporting capacity development i.e. Workshop on 'National Water Accounting;' through IRPID in December 2018 under TSP. WG requested NCs to contribute towards the Fund created for undertaking activities under Technical Support Programme (TSP) through TSU and take full advantage of

activities under TSP. WG also decided to request NCs to depute volunteers to undertake the activities of TSU from time to time.

WG-CDTE Minutes Item 3.2: International Training Workshop on Water Accounting Programme, 23-26 February 2019 at Tehran, Iran

5. An International Training Workshop on 'Water Accounting – Concepts and Tools' was jointly organised by FAO, ICID and IRPID-IRN from 23-26 February 2019 at two cities of Tehran and Ahwaz (Khuzestan) in Islamic Republic of Iran under Technical Support Programme (TSP). During the workshop, several presentations were made by FAO and ICID representatives, which are available at <http://irpid-iran.org/>. Dr. Amgad Elmahdi (Australia) as a Resource Person, made a presentation on 'Australian Water Reform and National Water Account" during the workshop. While Dr. Pasquale Steduto and Ms. Domitille Vallee from FAO explained the main concept of water accounting that provides valuable information for water resource planning and management. The outcome/feedback of the training workshop is available at https://www.icid.org/nup2019_3.pdf

WG-CDTE Minutes Item 3.3: International Young Professionals Training Program (YP-TP), 22-26 April 2019 at Seoul, South Korea

6. ICID in association with Korean National Committee (KCID) and the Chinese National Committee (CNCID) organised a five-day International Young Professionals Training Programme on the theme "Climate Resilient Smart Irrigation Systems" from 22-26 April 2019 at RC-IEEC in Republic of South Korea. The YP training programme was attended by 34 participants from 17 countries, focused on building resilient irrigation systems around the world in the face of climate change, how these systems may be implemented in different biophysical environments and the advanced technologies that are currently in practice. The training program was followed by an international expert consultation workshop on "Irrigation Technology to Mitigate Climate Change".

WG-CDTE Minutes Item 3.4: 1st African Young Water Professional's Forum (Af-YWPF) in October 2018 in Cairo, Egypt and Establishment of AF-IYPeF

7. The Working Group noted with great satisfaction the successful organization of 1st African Young Professional's Forum (Af-YWPF) in October 2018 by ENCID. The theme of the Forum was "Water Conservation for Sustainable Development". More than 300 members were present during the Forum.

8. The three-day Training Workshop of the Forum brought together 24 African future water leaders from 12 African countries including Sudan, Morocco, Ethiopia, Kenya, Mauretania, South Africa, Uganda, Nigeria, Malawi, Tanzania, Ghana and Egypt.

9. The workshop included opening and closing sessions, four training workshops and four keynotes speeches given by international experts, with hopes to challenge and inspire young water professionals within the continent about leadership in the research and innovative space and motivate their action.

10. The training workshop exposed participants to important issues such as Water Food Energy Nexus, value engineering, current trends, technologies and research gaps in water resources, irrigation and drainage as well as simulation modelling in irrigation and drainage. It was a good opportunity for YP's to showcase their knowledge and broaden their perspective to sustainable water management in an international setting, learn from shared experiences to broaden their minds and thinking of new and experienced water professionals.

11. The forum ended with the establishment of Af-YWP Forum, the approval of the forum mandate, selection of the coordinators for the Af-YWP Forum for the years 2018-2020 and concluded with the recommendations such as (a) Continually expose African Young Water Professional to ICID's aims, objectives, role and activities; (b) Future Training Workshops will draw from gaps in the TNA and discussions held during this training; (c) Foster efforts to make training workshops more interactive and give participants the opportunity to learn from each other; (d) Collaborate, build and establish cooperation with institutions, organizations and agencies whose visions tallies with our objectives; and (e) Discussions and various forum activities shall serve the African Challenges as well as AFRWG-ICID to ensure effectiveness of the Forum.

WG-CDTE Minutes Item 3.5: 5th African Regional Conference on Irrigation and Drainage, 16-19 March 2020, Marrakesh, Morocco

12. Prof. Bartali, representative from Moroccan National Committee of ICID (ANAFIDE) made a presentation about the Conference and a video also was showed to the member of the group. The ANAFIDE will be organizing the 5th African Regional Conference on Irrigation and Drainage (ARCID) from 16-19 March 2020 in Marrakesh, Morocco to exchange experiences about lessons drawn, innovative technologies and

irrigation development strategies to reduce deleterious impacts of climate change on African agriculture. The 5th ARC will focus on the theme "Sustainable Management of Irrigation for Improved Resilience of Agriculture in Africa" considering the need to address the aforementioned challenges to improve resilience in agriculture productivity for ensuring food security for the present and future generations in the African region. The conference will bring together a wide range of participants, including policy decision makers, professionals, academicians and researchers from Africa and beyond working in irrigation and drainage or closely related fields and will provide an opportunity to revisit Moroccan achievements in modernized irrigated agriculture and appreciate historical attractive places in the country. ANAFIDE invites all prospective delegates to attend and contribute to this important regional conference. During Mexico meeting, it was agreed that a training programme for YP's from African region will also be organized preceding 5AfRC. Members are requested to submit the abstract(s) through email at bartali.h@gmail.com, anafide.ma@gmail.com; or by visiting the website http://5arcid.ma/login/.

WG-CDTE Minutes Item 4: Knowledge Management Strategy (KMS)

13. ICID has come up with a comprehensive KMS and Dr. Singh presented the concept as well as on-going developments in this initiative. Feedback from the WG members were invited to improve the ICID knowledge portal through which the knowledge outcomes of ICID will be made available to the members and other stakeholders for use in their work.

WG-CDTE Minutes Item 4.1: Dissemination of Knowledge

14. The WG noted that the website of the Group http://www.icid.org/wg_cdte.html has been updated. The group requested the members to provide information, papers, presentation made on topics related to scope of the work of the WG to the ICID CO for uploading on the website of the WG.

WG-CDTE Minutes Item 4.2: Sharing of Knowledge

15. During the Bali meeting, the group discussed about organization of webinar to share vast knowledge available with ICID fraternity among members of the NCs with the support of WG experts. ICID CO requested the members to participate in the webinar/web-based seminar and also to suggest topics along with name of experts who can be consulted to deliver webinars. The updated Live recording of webinars organized by ICID so far is available at ICID website http://www.icid.org/icid_webinar.html

WG-CDTE Minutes Item 4.3: E-learning programmes as a capacity development tool

16. In the long run, ICID also plans to deliver e-Learning programs for professionals as well as young professionals who might be attracted to such programs for their career development.

WG-CDTE Minutes Item 5: Any other business

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Annex [Appendix XVII, Item 2]

ROAD MAP TO ICID VISION 2030 – ACTIVITIES OF WG-CDTE

	Activity	Outcomes/ Outputs	Milestone for Year 2017	Milestone for Year 2018	Milestone for Year 2019	Milestone for Year 2020	Milestone for Year 2021
Goal C: Facilitate exchange of information, knowledge and technology							
C5. Strategy: Dissemination of Data, Information, Tools, Knowledge and Know How	5.1 Guide and support organization of seminar/ workshops etc. by WGs and NCs	Networking and exchange of knowledge (development of knowledge portal)	Regular	Regular	Regular	Regular	Regular
	5.2 Report on role of ICT in capacity development	Study report	Discussion, collection and analysis of information Draft report	Finalisation and release of report	Collection of additional data and information	Updation of report	Collection of additional data and information
Goal E: Encourage research and support development of tools to extend innovation into field practices							
E1. Strategy: Support Improving Research Prioritization in the Countries	1.3 Overseeing activities of Technical Support Unit (TSU)	Capacity development and technical support to NC	Regular	Regular	Regular	Regular	Regular
Goal F: Facilitate capacity development							
F1. Strategy: Enhancing Institutional Capacity Development of Member Countries	1.1 Provide technical support of National Committees, member and non-member of ICID (TSU)						
	1.2 Assisting to find capacity gaps in NC (TSU)						
	1.7 Contribute in the process of reorganization of NCs (TSU)						
F2. Strategy: Support Capacity Development Activities of Member Countries	2.1 Facilitate donor NCs supports joint research, invitations training, YP support program, or membership subscription in certain period (TSU)	Technical Report	Finalisation and dissemination of technical report				
	2.2 Report on capacity development needs, available training courses, gaps, institutes which can provide training to fill gaps etc.	Study report	Discussion, collection and analysis of information Draft report	Finalisation and release of report	Collection of additional data and information	Updation of report	

	Activity	Outcomes/ Outputs	Milestone for Year 2017	Milestone for Year 2018	Milestone for Year 2019	Milestone for Year 2020	Milestone for Year 2021
	2.3 Organizer Webinar	Online meeting	Identification of topics and resource persons/ institutes	Support development of webinar material and its wider dissemination	Support development of webinar material and its wider dissemination	Support development of webinar material and its wider dissemination	Support development of webinar material and its wider dissemination
F3. Strategy: Technical Training of Young Professionals from Member countries	3.1 Develop on-line training and extension material to be used in support of improving irrigation practices and increasing water productivity				International training for YPs in cooperation with KRC/KCID at RC-IEEC, KRC, Korea (April 2019)	YP training programme prior to 5th AfRC on I&D 16-18 March 2020 at Rabat, Morocco	
	3.3 Establishment of a distance learning mechanism	e-learning modules	Identification of topics and resource person/institutes for development of e-learning modules	Development of e-learning modules and its wider dissemination	Development of e-learning modules and its wider dissemination Identification of additional topic etc.	Development of e-learning modules and is wider dissemination	Development of e-learning modules and is wider dissemination
	3.4 Capacity development/training program on request from NCs	Training of professionals	Organisation of regional training program one every year	Organisation of regional training program one every year	Organisation of regional training program one every year	Organisation of regional training program one every year	Organisation of regional training program one every year
	3.5 An online directory of institutes providing formal degree in Irrigation and Drainage	Online course	Collection and analysis of information and its wider dissemination	Updation of information	Updation of information	Updation of information	Updation of information
F5. Strategy: Providing Technical Support to NC's (TSU)							

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

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MINUTES OF THE 2ND MEETING OF THE WORKING GROUP ON HISTORY OF IRRIGATION, DRAINAGE AND FLOOD CONTROL (WG-HIST)

05 September 2019, 14:00-16:00 hours (Session I)
05 September 2019, 16:15-18:15 hours (Session II)
Bali, Indonesia

Strategy Theme: Knowledge

Presented by the Chairman

Year of Establishment: 2017 **Completion of the Mandate: 2023**

Mandate: (a) To motivate ICID National Committees in various countries to set up their National Working Groups on History; (b) To provide guidance to compile, publish, update and/or translate documents on history of irrigation, drainage, and flood management; (c) To promote inter-disciplinary exchange of information, knowledge and experience, as well as networking on the topic (agricultural, political, socio-economic, climatologically and geographical, aspects) for proper understanding of the technological developments on the subject; (d) To organize seminars at ICID Congresses to enhance awareness of Water history; (e) To prepare a paper on "Historical Water Sustainability" for publication in *Irrigation and Drainage (IRD) Journal*; (f) To finalize a book on "Historical Water Sustainability"; and (g) To encourage member countries to produce documentaries on Water History.

Members Present: (1) Vice President Dr. Kamran Emami, Chair (Iran); (2) Mrs. Xuming Tan (China); (3) VPH Dr. Laszlo Hayde (Hungary); (4) Mr. Ju-Chang Kim (Korea, Rep. of); (5) Engr. Sirika Ahmad Abubakar (Nigeria); (6) Dr. Sinite Yu (Chinese Taipei).

Permanent Observer: Dr. Ing. Klaus Rottcher (Germany).

Observers: (1) PH Bart Schultz (The Netherlands); (2) Rendy Aslan (Indonesia); (3) Yutaka Matsuno (Japan); (4) David Emmanuel (Nigeria).

Website: http://wg-hist.icidonline.org/

WG-HIST Minutes Item 1: Action taken report by the Chair

1. At the onset, Chair presented the report on the actions taken on the decisions and proposals of the working group at its last meeting held at Saskatoon in August 2018.

2. WG reviewed the membership of the group which includes one new nomination viz. Mr. Ju-Chang Kim (Korea, Rep. of) and the same was accepted with the participation of the nominee. The member from Pakistan (Prof. Dr. Abdul Sattar Shakir), Korea (Prof. Jaekyoung Noh), and Sri Lanka (Eng. S.P.C. Sugeeshwara) have not contributed to the activities of the WG during last two years so as per ICID By-laws 3.5, it was recommended to discontinue their membership with the recommendation to invite new nomination from the National Committees. Membership status is given in **Annex 4 (page 27)**.

WG-HIST Minutes Item 2: Road Map to ICID Vision 2030 - Activities on history of irrigation, drainage and flood control

3. The group discussed the Road Map to ICID Vision 2030 and provided latest updates to PCTA for inclusion of relevance of water history to SDGs and ICID Vision 2030 (refer **Annex**). It was also decided to organize an International Workshop on the above topic during Sydney Congress in 2020.

WG-HIST Minutes Item 3: Publication on "Historical Water Sustainability"

4. The Chair informed the WG's members about the conclusions chapter prepared and presented in the History Workshop in Bali. The group decided to request President Hon. Peter Lee to edit the chapters by the end of July 2020. The chapters have been formatted by President Hon. Bart Schultz. The Chair would finalize the conclusions chapter by the end of February 2020 and would email to the members for review. The review process should be concluded by the end of July 2020 and the tentative publican should be submitted to ICID Central Office for final editing. It was also recommended that important points of the papers submitted in the history workshops organized by the WG-HIST should also be considered for the conclusions chapter. The book has the following chapters:

(a). Water History and Sustainability in Indonesia – A. Hafied A. Gany

(b). The Grand Canal (later the Cavour Canal) – Antonio Linoli

(c). Sustainability of Chinese Civilization and Water Conservation

(d). Creative Sustainability in the context of history – Kamran Emami

(e). History of Irrigation in Thailand and its Sustainability

(f). Historical Water Sustainability: Lessons to Learn from Japanese Experiences – N. Hatcho and Yutaka Matsuno

(g). Sustainable Development and Water Resources – Ali Bagheri and Peder Hjorth

(h). Sustainable Irrigation in South Africa: Evidence from History – Lani van Vuuren

(i). The roles of management in sustainability of irrigation systems – Charles L Abernethy

(j). The History of Irrigation Sustainability in Malaysia – MANCID

(k). The Beemster, A drained lake that already proved to be sustainable for more than 400 years – Bart Schultz

(l). Qanats of Iran: Sustainable Water Supply Systems – Ali Asghar Semsar Yazdi and Majid Labbaf Khaneiki

(m). Can the Dutch keep their polders dry is not listed, Impact of changes in land use and climate on water management and flood protection of the polders in the Netherlands - Bert Toussaint and Bart Schultz

WG-HIST Minutes Item 4: Exchange of information, knowledge and networking – Website

5. A brief report of the Conference on Water Heritage held in Chiayi City, Chinese Taipei from 27 to 29 of May 2019 was presented by the representative from Chinese Taipei. Next year, there is a Conference by ICOMAS in Sydney a few days after ICID Congress. The members were encouraged to use the opportunity to attend both events.

WG-HIST Minutes Item 4.1. Website of the group

6. It was agreed to prepare a package of presentations, papers, reports and documentaries on water history. The package will be uploaded on the WG's website.

WG-HIST Minutes Item 4.2. Webinar/ Web based seminar

7. After discussion, the group proposed the organization of a web-based e-discussion in the month of February 2020.

WG-HIST Minutes Item 5: Review of World Historical Irrigation Structures (WHIS) and WSH Program

8. The group noted that 17 nominations were presented for WHIS program by member countries and all were accepted. It was suggested that each country can nominate up to 4 structures each year to make the WHIS sustainable with high quality and prospective applications competitive.

WG-HIST Minutes Item 6: International Workshop on Historical Water Sustainability, September 2019, Bali

9. The International Workshop on Historical Water Sustainability was organized on 1 September 2019 wherein 11 papers were presented. More than 80 managers and engineers from 20 countries participated in the workshop. WG Chair also presented a summary of the publication of the working group on Historical Water Sustainability. A documentary on Water History in China was also presented. A summary of the workshop was presented at the end of workshop by the chair and it was emailed to President H. Bart Schultz to be included in final documents of the event. The following papers were presented in the workshop:

09.00-09.30	Welcome and a summary of the publication of the WG-HIST on Historical Water Sustainability by *VP Dr. Kamran Emami, Chair, WG-HIST*
09.30-09.45	Institutional setup of irrigation and drainage in Afghanistan by *Hafeezullah Hashimi, Nahid Samadi and Naseer Ahmad Fayez*
09.45-10.00	Technology transfer and water sustainability-Experiences of Japan by *Nobumasa Hatcho and Yutaka Matsuno*
10.00-10.15	Analysis on Dujiangyan Irrigation System and its sustainable development experience by *Liu Jiangang, Tan Xuming, Deng Jun, Zhou Bo, Li Yunpeng, Guan Jianzhao*

10.15-10.30	Reservoir regulations in 1662 by the government of Joseon dynasty, Korea by Kim, Ju-Chang and Lee, Seok-Woo
10.30-11.00	Discussion with questions from audience
11.15-11.30	Water supply and water demand – a model for a better understanding of Assyrian water management along the Lower Ḫābūr River by *Klaus Röttcher*
11.30-11.45	Research on water conservancy legislation and related issues in XIXIA by *You Hua*
11.45-12.00	Historical water sustainability: a case study of the Phad irrigation system of Maharashtra state, India by *Dr. Shivaji T. Sangle and K. P. Bakshi*
12.00-12.15	Characteristics and values of irrigation historical sustainability in China by *Li Yunpeng, Zhou Bo and Tan Xuming*
12.15-12.30	Research on Jiangxiyan Irrigation System by *Zhou Bo, Li Yunpeng, Tan Xumin, Deng Jun, and Liu Jiangang*
12.30-12.55	Discussion with questions from audience
12.55-13.15	Wrap-up and closing remarks by Chair

WG-HIST Minutes Item 7: Impact of climate events on ancient civilization

10. Vice President Dr. Marco presented a summary of his book on Impact of climate events on ancient civilization which was appreciated by the members of WG and observers. Professor Klaus Röttcher also briefly presented his paper on Water supply and water demand – a model for a better understanding of Assyrian water management along the Lower Ḫābūr River.

WG-HIST Minutes Item 8: Any other business

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Annex [Appendix XVIII, Item 2]

ROAD MAP TO ICID VISION 2030 – ACTIVITIES OF WORK BODIES

Goals/ Strategies	Activities	Outcomes/ Outputs	Milestone for Year 2017	Milestone for Year 2018	Milestone for Year 2019	Milestone for Year 2020	Milestone for Year 2021
Goal C: Facilitate exchange of information, knowledge and technology							
C1. Strategy: Providing Knowledge-sharing Platform for AWM Professionals	1.2 International conference/ workshop/ seminar on History	Workshop Proceedings	Workshop/ seminar on Historical Water Sustainability		Workshop/ seminar (Bali)		
C3. Strategy: Promoting Regional Cooperation	3.10 International conference/ workshop/ seminar	Workshop Proceedings					
C4. Strategy: Compile, Collate and Share Knowledge and Experiences	4.5 Publication on Historical Water Sustainability	Publication		Compile lessons learned from WHIS/ WSH		Finalize the publication on Historical Water Sustainability	
	4.6 World Historical Irrigation Structures (WHIS)	Register of WHIS	Nomination/ evaluation / update register	Nomination/ evaluation /update register	Nomination/ evaluation / update register; Exhibition at WIF3	Nomination/ evaluation /update register	
	4.7 World Water System Heritage (WSH) Program	Register of WSH	Nomination/ evaluation / update register	Nomination/ evaluation / update register	Nomination/ evaluation / update register, Exhibition at WIF3	Nomination/ evaluation / update register	
C5. Strategy: Dissemination of Data, Information, Tools, Knowledge and Know How	5.10 Documentaries on Water history	Encouraging the member counties to produce documentaries on water history by presenting the prize on the best documentaries	Encouraging the member counties to produce documentaries on water history by presenting the prize on the best documentaries	Encouraging the member counties to produce documentaries on water history by presenting the prize on the best documentaries	Encouraging the member counties to produce documentaries on water history by presenting the prize on the best documentaries	Encouraging the member counties to produce documentaries on water history by presenting the prize on the best documentaries	Encouraging the member counties to produce documentaries on water history by presenting the prize on the best documentaries
	5.11 Updating the WG-HIST website	Online	Uploading the relevant documents, …	Uploading the relevant documents, …	Uploading the relevant documents, …	Uploading the relevant documents, …	Uploading the relevant documents, …
Goal E: Encourage research and support development of tools to extend innovation into field practices							
E4. Strategy: Research on History of Irrigation and Lessons Learned from the past			Preparing the conclusion chapter for the WG publication	Preparing the conclusion chapter for the WG publication	Preparing the conclusion chapter for the WG publication	Preparing the conclusion chapter for the WG publication	
E6. Strategy: Dissemination of Useful Research Outputs	6.1 Prepare a paper on combination of old methods and new technologies		Presenting the first paper in the WG workshop and other seminars	Presenting the second paper in the WG workshop and other seminars	Presenting a paper for the journal of Irrigation and drainage		

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

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MINUTES OF THE 26TH MEETING OF THE ICID JOURNAL EDITORIAL BOARD (EB-JOUR)

05 September 2019, 14:00-16:00 hours (Session-I)
05 September 2019, 16:15-18:15 hours (Session-II)
Bali, Indonesia

Strategy Theme: Knowledge

Presented by the Chairman

Year of Establishment: 1994

Mandate: (i) To ensure with the (Joint) Editor(s) that the Journal is published in accordance with editorial policies; (ii) To select and recommend to IEC, through PCTA, the appointment of (Joint) Editor(s), Associate Editors and Members; (iii) To review and update editorial policies when required, to conform with the developing ICID objectives; (iv) To address and resolve issues pertaining to the Journal; and (v) To review guidelines for authors, manuscript reviewers and book reviewers and liaise and coordinate with ICID workbodies.

Members Present: (1) PH Bart Schultz, Chairman (The Netherlands); (2) Dr. Li Jiusheng, Joint Editor (China); (3) Prof. Daniele de Wrachien (Italy), Associate Editor represented by Prof. Graziano Ghinassi; (4) Prof. Yih Chi Tan (Chinese Taipei), Associate Editor; (5) Prof. Graziano Ghinassi (Italy), Associate Editor; (6) VPH Laszlo Hayde (Hungary), Associate Editor; (7) Dr. Severine Tomas, Associate Editor (France) represented by Dr. Dominique ROLLIN; (8) Prof. Jin-Yong Choi (Korea), Associate Editor; (9) Dr. Takanori Nagano (Japan), Associate Editor; (10 VPH Larry D. Stephens (USA); (11) Dr. Mohammad Javad Monem (Iran); and (12) Er. B.A. Chivate, Director (Tech), ICID Central Office represented by Dr. Vijay K. Labhsetwar, ICID Central Office.

Observers: (i) Dr. Vijay K. Labhsetwar, ICID Central Office; (ii) Sang Hee Park, KCID; (iii) Dr. Ray-Shan WU (Chinese Taipei) and (iv) Dr. Mohsin Hafeez (IWMI).

Website: http://www.icid.org/wiley_journal.html

EB-JOUR Minutes Item 1: Action Taken Report by Chair (from Editor, Chairman)

1. The Chairman PH Bart Schultz informed that the report of the Chairman for 2018 had been disseminated to the members of the Editorial Board before the meeting. Various points emerging from the report were presented and discussed during the meeting.

2. In addition, Prof. Jiusheng Li (China), Joint Editor, presented his observations and recommendations with respect to important points of the review process and our position with respect to related scientific journals in our sector.

EB-JOUR Minutes Item 1.1: Special Issues

3. The first regular issue of this year was a special issue with selected papers of the ICID Mexico Congress in 2017.

4. Two sponsored special issues will be published this year. These are:

   (a) A Special Issue on 'New Developments on Irrigation in Africa' combined with the selected papers from the Regional European Conference in Montpellier (2015). This special issue is based on the results of a European Union supported project with several partners, especially IRSTEA (France) and Wageningen University (The Netherlands);
   (b) A Special Issue by the Iranian National Committee (IRNCID) based on selected papers of the 13th International Drainage Workshop, Iran in March 2017. The papers for this special issue have been published online in 2018. However, the hard copy of the issue could only be published this year.

5. Five new Special Issues may be expected during 2020-2021. These are:

   (a) A Special Issue with invited papers related to the ICID Vision 2030 and Action Plan. It will most probably be published in the first regular issue of next year;
   (b) A special issue with selected papers of the 3rd World Irrigation Forum. To be published in the course of 2020.

6. Three sponsored special issues are in preparation. These are:

   (a) a sponsored Special Issue on 'New Developments on Irrigation and Drainage in China' by the Chinese National Committee of ICID (CNCID);
   (b) The WG-SDTA will prepare a third sponsored Special Issue based on the papers presented during its meetings and workshops. To be published in 2021;
   (c) The International Water Management Institute (IWMI) will prepare a Special Issue with papers based on their projects in irrigation.

EB-JOUR Minutes Item 1.2: French resumés

7. The check of the French texts by Severine Tomas which is going on very well without delay.

EB-JOUR Minutes Item 1.3: Recognition to the reviewers

8. The Guest Editors and Reviewers of 2018 have been recognised in the First Issue of 2019. Since the end of last year, the Joint Editors and Associate Editors that handled the review process are mentioned at an appropriate place of the published paper. Reviews are also listed in PUBLONS when reviewers would wish so.

EB-JOUR Minutes Item 1.4: Review process

9. The time for several steps in the review process has been reduced. However, for certain papers there were still significant delays before a final decision on publication could be taken. Regular checks by the Chairman and the Joint Editors are being done to prevent this as much as possible. The rapid changes in the publishing world require that the time for the review process be kept as short as possible.

EB-JOUR Minutes Item 1.5: Best Paper Award 2019

10. In 2018, 82 papers were published in the five regular issues and the sponsored special issue by the Working Group on Sustainable Development of Tidal Areas. The Best Paper 2019 was selected by the Chairman in cooperation with the Joint and the Associate Editors of the Journal. The Best Paper Award in the form of a citation plaque along with a cash prize of US$ 500 has been awarded for the paper: *Research on risk and early warning system of inter-basin multireservoir water transfer-supply operation with consideration of uncertain factors* by Fang Wan, Wenlin Yuan, Qingyun Li and Subing Lü Published in Issue 67.3.

EB-JOUR Minutes Item 1.6: Membership

11. Bryan Thoreson, Kendall DeJonge and Yih-Chi Tan have informed the Chairman that they would like to step down as Associate Editor. Their good and skilled work for the Journal is highly appreciated.

12. ICID-Chinese Taipei Committee (CTCID) had nominated Dr. Ray-Shyam Wu (Chinese Taipei) as Associate Editor. The EB recommended his nomination for acceptance during the meeting. Dr. Mohsin Hafeez (IWMI) was also present during the meeting and his nomination would be accepted as Associate Editor of the Journal subject to receiving his formal nomination from the International Water Management (IWMI) along with a brief CV. Membership status is given in **Annex 4 (page 27)**.

13. Er. B.A. Chivate, Director (Tech.), ICID Central Office has taken over the work of Dr. Vijay K. Labhsetwar with respect to the Journal and Dr. Sahdev Singh, Director (KM) prepares already the two pages that ICID publishes in each regular issue of the Journal. It is recommended that both will become the members of EB-JOUR.

14. Since 2005 Dr. Vijay K. Labhsetwar has ably done the work for the Journal in the ICID Central Office. Because of his retirement this work comes to an end. First of all high appreciation has been expressed for his work. Based on his rich experience in our sector, in consultation with the Chairman, it is proposed that Dr. Vijay K. Labhsetwar will remain a member of EB-JOUR and will be more involved in future review work.

15. Because of his age Chairman Bart Schultz has indicated his wish to step down as Chairman of the Editorial Board at the occasion of the next meeting in Sidney, Australia in September 2020. After consultation with the Joint Editors, it is proposed that Joint Editor Prof. Jiusheng Li (China) will become Chairman at the same date. In addition, it is proposed to use the coming year to arrange a smooth transition and to prepare the related proposals to be made and formalized during the meeting in Sidney.

EB-JOUR Minutes Item 2: Road Map to ICID Vision 2030: Action Points of Editorial Board

16. The milestones set for the Editorial Board in relation to the Road Map to ICID Vision 2030 have been reported in the Agenda of the EB. In general, the progress has been better than envisaged. A Special Issue with invited papers is under preparation and is expected to be published in the first half of next year.

EB-JOUR Minutes Item 3: Distribution of the Journal among the ICID membership

17. This year is the first year under the 5th Agreement with Wiley (2019-2025). The major change compared to the previous Agreements is that all individual members of National Committees are entitled to receive 'Online access' to the Journal. However, only a limited number of contact data has so far been received from the National Committees. It will be important that the Secretaries of the National Committees, that have not done this yet, submit at the shortest notice the contact data of their individual members to the ICID Central Office. It is stressed that these data will only be used to enable the publisher to provide online access.

18. A total of 1529 copies were distributed to members in 2019 i.e. 1325 'Online-only' subscriptions, 122 subscriptions as 'Online + print' and 82 as 'print-only' subscriptions. The 'Direct Members' and Young Professionals (receiving ICID scholarship) have been added to the list receiving ICID Journal.

EB-JOUR Minutes Item 4: Issues related with M/s. Wiley-Blackwell

19. The relevant issues related with M/s Wiley-Blackwell have been listed in the Agenda. In general the cooperation with the publisher is implemented in a smooth and constructive way.

20. The publisher has provided promotion material (pull-up Eco-banner and leaflets) have since been received and displayed at ICID Booth at the exhibition in Bali and distributed to the WIF3 participants.

EB-JOUR Minutes Item 5: Any other business

21. The meeting ended with thanks to the Chair.

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MINUTES OF THE 3RD MEETING OF THE TASK FORCE FOR UPDATING AND MAINTENANCE OF MULTILINGUAL TECHNICAL DICTIONARY (TF-MTD)

03 September 2019, 11:15-13:15 hours
Bali, Indonesia

Year of Establishment: 2016

Mandate:(a) To identify priority chapters and terms frequently referred/ consulted by AWM professionals; (b) To consult/invite professional organizations to collaborate in enriching chapters/terms; (c) To identify experts/work bodies to review terms/chapters; (d) To encourage NCs in preparation and building of additional translations along with English/French; (e) To identify interesting pictures/diagrams suitable to illustrate various terms, where required, and(f) To make it accessible on web/ mobile.

Members Presented: (1) VPH Dr Ding Kunlun, Chair of TF-MTD (China); (2) Mr. Bernard Vincent, Chair of WG-SDRG (France); (3) Dr A. K. Randev, Chair of WG-SON-FARM (India); (4) Ms. Mary Jean Gabriel, Chair of WG-IDM (South Africa); (5) VPH Ian Makin, Chair of WG-M&R (Sri Lanka); (6) Dr. Yu-Chuang Chang from WG-IOA (Chinese Taipei).

Observers: (1) Prof. Dong Bin, WG-M&R (China); (2) Dr Wu Wenyong, WG-NCWRI (China); (3) Dr Waleed Hassan, WG-CLIMATE (Egypt); (4) Dr. Sahdev Singh, ICID Central Office (India); (5) Mr Ikuo Yoshinaga, WG-SDTA & WG-AFM (Japan); (6) Dr Takanori Nagano, WG-MWSCD (Japan).

TF-MTD Minutes Item 1: Action taken report by Chair

1. At the onset, TF Chair reviewed the membership and recommended Dr. Takanori Nagano from WG-MWSCD (Managing Water Scarcity under Conflicting Demands) to be the member of the TF, who expressed strongly to contribute to the TF. Chair suggested that he can work on any Chapters of the MTD on behalf of WG to provide some updates. It was suggested that once the TF members provide updated MTD terms to the Central Office (CO), then the CO would make the updated terms available on website, and will circulate it to NCs' for updation. Membership status is given in **Annex 4 (page 27)**.

TF-MTD Minutes Item 2: Process for updation of MTD

2. TF members agreed to focus on the possible update of the current English edition by checking the chapters and terms to see if any chapter/ terms need to be modified, new terms to be added, any term to be deleted as well as inclusion of any photos, diagrams, link etc. (*as per allocation refer **Annex***). About 223 such keywords had been selected and provided by Dr Sahdev Singh, Director (KM) from ICID Central Office. It was reported from the TF members that 855 terms/ words in total have been selected to be modified (additions, deletions, or modifications), including 120 words from WG-CLIMATE, 477 words from WG-M&R, 100 words from WG-IDM, and 165 words from WG-SON-FARM. It was reported that these 855 terms have been sent to the Central Office for processing. As those lists of terms were not all received by the Chair, so the members were requested to send their lists of the selected terms again to the CO and the Chair. In response, Ms. Mary Jean Gabriel, Chair of WG-IDM (South Africa) has provided the updated terms for chapters 5 – Headworks, 6 – Design of irrigation canals, 7 – Canal structures, 8 – Project water management, 17 – Operation, maintenance and management.

TF-MTD Minutes Item 3: Translation of MTD in various local languages

3. After discussion at Saskatoon meeting, the Chair suggested that once the English updation is completed, translation of the updated MTD in different languages can be considered by respective NCs facilitated by the Central Office.

TF-MTD Minutes Item 4: Dissemination and maintenance of MTD

4. Members noted that registered members can login the website <http://www.icid.org/ximlogin/login.php> and download/ search the technical terms related to their interest in the languages of English, Chinese, French, Japanese, Russian and Hindi (partially).

TF-MTD Minutes Item 5: Organization of online WebEx meeting

5. Due to paucity of time, the item was not discussed.

TF-MTD Minutes Item 6: Any other business

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Annex [Appendix XX, Item 2]

PRIORITY WISE LISTING OF MTD CHAPTERS

Category 1	**Category 2**	**Category 3**
(5) Head works; **(WG-IDM)**	(2) Hydrology; **WMO, UNESCO, IAHS**	(1) General (statistics, units etc.);
(6) Design of irrigation canals; **(WG-IDM)**	(3) River hydraulics;	(4) Reclamation;
(7) Canal structures; **(WG-IDM)**	(10) Pumping stations (lifting devices);	(14) Construction materials;
(8) Project water management; **(WG-IDM)**	(18) Soil and water conservation;	(15) Construction techniques and equipment;
(9) Wells and drilling;	(22) Systems analysis;	(19) Environmental impacts;
(11)Irrigation systems and distribution of irrigation waters; **(WG-IOA)**	(24) Project planning;	(21) Computer technology;
(12) On-farm water management; **(WG-SON-FARM)**		(23) Hydraulic research;
(13) Design and construction of drainage systems; **(WG-SDRG)**		(25) Climate change
(16) Automation in irrigation, drainage and flood control systems; **(WG-M&R)**		
(17) Operation, maintenance and management; **(WG-M&R and IDM)**		
(20) Flood control; **(WG-CAFM)**		

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MINUTES OF THE 1ST MEETING OF THE TASK FORCE TO GUIDE ICID INPUTS TO 9TH WORLD WATER FORUM (TF-WWF9)

04 September 2019, 11:15-13:15 hours
Bali, Indonesia

Strategy Theme: Knowledge

Presented by the Chairman

Year of Establishment: 2018 **Completion of the Mandate: 2021**

Members Present: (1) President Hon. Dr. Saeed Nairizi, Chair (Iran); (2) Vice Chair, Alireza Salamat (Iran); (3) Dr. (Ms) Eman Ragab Nofal – Young Professional (Egypt); (4) M. Dominique Rollin (France); (5) Vice President Hon. Dr. Shinsuke Ota (Japan); (6) Dr. Tsugihiro Watanabe (Japan); (7) Mr. Jeon-Yong Ryu (Korea, Rep. of); (8) Director B.A. Chivate represented Secretary General Ashwin Pandya.

TF-WWF9 Minutes Item 1: Introduction by the Chair

1. The Chair highlighted the importance of ICID contribution and promotion of ICID's visibility in World Water Forum 9 in Dakar, Senegal in March 2021 by presenting its activities and achievements.

2. VPH Dr. Shinsuke Ota also briefed the participants on the background decisions made during 64th annual IEC meetings held in Mardin (Turkey) in 2013 about further ICID involvement in WWC board as session leader. He also explained about the World Water System Heritage (WSH) as an important measure taken by WWC-ICID which also requires further attention of the National Committees.

3. The Chair asked the members attending African Regional Conference in Morocco to be held in March 2020 to publicize ICID's contribution in WWF-9.

New members, Vice and Co-Chair

4. The Uzbek National Committee (UZNCID) and Iran National Committee (IRNCID) have nominated Messrs Shamsiddin Qurbonov and Hossein Dehghanisanij for the membership of the TF but as both were not present, their membership accepted as "Provisional Member" until the next meeting.

5. Mr. Alireza Salamat from Iran was selected as the Vice Chair and Mr Dominique Rollin from French National Committees on Irrigation and Drainage (AFEID) was selected as the Co-Chair of TF-WWF9. Membership status is given in **Annex 4 (page 27)**.

TF-WWF9 Minutes Item 2: Mandate of the TF

6. After discussion, Chair emphasized on the key role on behalf of ICID in:

   (a) monitoring and providing inputs to 9th WWF by liaising with the National Committees and Work bodies.
   (b) liaising with the National Committees for preparatory work of the 9th WWF;
   (c) liaising with 9th WWF Program Committee and other International Bodies, including FAO, IWMI, APPC, WB, etc.;
   (a) promoting ICID's visibility in World Water Council.

7. TF requested ICID Central Office representative Mr. Chivate to regularly follow up the above-mentioned issues and report back to the Chair and Vice Chair of the developments in the preparatory works leading to WWF9.

TF-WWF9 Minutes Item 3: Liaison with the National Committee for preparatory work of 9th WWF

8. The 9th World Water Forum will be held in March 2021 at Dakar, Senegal on the theme "Water Security for Peace and Development". Since there is no National Committee of ICID in Senegal, TF requested ICID representative to coordinate with Burkina Faso, Mali, French, Nigerian and South African Committees to liaise with the Forum towards preparatory work on behalf of ICID.

TF-WWF9 Minutes Item 4: Liaison with the ICID Work Bodies for Preparatory work of 9th WWF

9. Due to paucity of time, the item was not discussed.

TF-WWF9 Minutes Item 5: Identify areas for ICID contributions to the Forum

10. After discussion, it was proposed that Mr. Dominique Rollin will coordinate with French Water Partnership to actively attend WWC regular meetings and to bring up the results of a joint project related to the Scientific Committee of Water in Agriculture as COSTEA in WWF-9.

11. The Chair asked French representative to also investigate the possibility of preparing a concept note on switching from rural development towards rural transformation for an event to be held during ICID event in WWF-9.

12. Ms. Narges Zohrabi as a participant from Iran National Committee (IRNCID) was asked to prepare a concept note on gender mainstreaming issues by contacting relevant entities for an event to be held during WWF-9.

13. Mr. Jeonyoung Ryu from Korean National Committee on Irrigation and Drainage (KCID) will present Korea's contribution on KRC's role in a project on Water, Food and Energy nexus which has initially been launched. He will also present KRC's activities on Smart Water Management practiced successfully in one of the Basins in Khuzestan province, Iran during WWF-9.

14. Dr. Tsugihiro Watanabe (Japan) was also asked to investigate how to bring up the issue of Climate Change impacts on water systems particularly in arid and semi-arid regions during WWF-9.

15. Ms. Eman Ragab Nofal as YPF representative was also asked to prepare a concept note on ICID-YPF capacity development activities for an event to be presented in WWF-9 in close cooperation with other member countries.

16. The Chair will seek necessary supports from FAO, IWMI, WB and concerned international entities related to the above mentioned topics.

TF-WWF9 Minutes Item 6: Any other business

World Water Systems Heritage (WSH)

17. Mr. Alireza Salamat as the Vice Chair of TF-WWF9 briefed the participants on the World Water Systems Heritage (WSH), as a joint initiative with the World Water Council (WWC). He asked for ICID's further facilitation on speeding up the process of National Committees involvement in introducing their Water System Heritage similar to the fast process which has been practiced for HIS. ICID representative was requested to pace the renewal process of Memorandum of Understanding (MoU) with WWC to take the WSH initiative forward.

18. Simultaneously, ICID is also developing a paper on identifying and documenting the key learning points from the knowledge embedded in the ICID Register of the World Irrigation Heritage Structures (WHIS). The paper will be published in an upcoming book on Water as Heritage. ICID was asked for further nominations from National Committees.

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MINUTES OF THE 2ND INFORMAL MEETING OF THE WORING GROUP ON VALUE ENGINEERING (WG-VE)

04 September 2019: 11:15-13:15 hours (Session-I)
04 September 2019: 14:00-16:00 hours (Session-II)
Bali, Indonesia

Strategy Theme: Knowledge

Presented by the Chairman

Year of Establishment: 2017 **Completion of the Mandate: 2023**

Members Present: (1) Dr. Kamran Emami (Iran), Chairman; (2) Mrs. Remziye Yildiz Gulagaci, Vice Chairman; (3) Ir. Nor Hisham M. Ghazali (Malaysia), Secretary; (3) Mr. Suman Sijapati (Nepal); (4) Dr. Toshihiko Kuno (Japan); and (4) Dr. Yawan, Chen (Chinese Taipei).

Observers: (i) Dr. Barbara Katlyn (Indonesia); (ii) Dr. Hafeezullah Hashimi (Afghanistan); (iii) Dr. L.B. Roy (India); (iv) Engr. Mohd Anuar Musardar bin Yusoff (Malaysia); (v) Ir. Mona Liza F. Delos Beyes (Philippines); (vi) Dr. Najmuddin Anjum (Afghanistan); (vii) Ir. Rahmatullahmr Rahmani (Afghanistan); (viii) Ir. Robert Naudascher (Switzerland); (ix) Prof. Dr. Salar (Afghanistan); (x) Ir. Sriyana (Indonesia); and (xi) Ir. Tesh Chin Chuary (Malaysia).

Website: http://tf-ve.icidonline.org/

WG-VE Minutes Item 1: Action Taken Report by Chair

1. Dr. Kamran Emami (Iran), Chairman of the WG-VE presented report on actions taken on the decisions made during the last meeting held at Saskatoon, Canada in August 2018.

2. The U.S. National Committee on Irrigation and Drainage (USCID) nominated Mr. Delbert M. Smith (USA) for the membership of the WG-VE. However, Mr. Smith was unable to attend the meeting hence the group accepted his nomination as a provisional member. No new nominations were received during the meeting.

3. Chair informed the WG that he has presented a paper for the Irrigation and Drainage Journal entitled: “Value Engineering Opportunities and Challenges”. In this context, he mentioned that based on worldwide experience for effective, efficient and long-term application of VE a rather long time is needed and promoting VE in ICID may take years and decades. Based on the activities of the WG-VE it should be active for years to come.

WG-VE Minutes Item 2: Introduction of the Scoping Document for a new WG

4. The mandate for the WG-VE is as presented in the last meeting of the TF-VE in Saskatoon, 2018 was reviewed and updated mandate of the WG after deliberation is as follows:

(a) To motivate ICID National Committees in various countries to set up their National Working Groups on VE.

(b) To provide guidance to compile, publish, update and/or translate documents on Value engineering projects (irrigation, drainage, flood management, and river engineering);

(c) To promote inter-disciplinary exchange of information, knowledge and experience, as well as networking on the topic;

(d) To organize seminars at ICID Congresses and meeting to enhance awareness on importance of Value Engineering;

(e) To prepare a paper on “Application of Value Engineering in Irrigation and Flood Projects” for publication in Irrigation and Drainage (IRD);

(f) To finalize a book on Application of Value Engineering in Irrigation and Flood Projects”.

(g) To encourage member countries to produce papers on Value Engineering case studies

5. The above mandate encompasses overarching issues of the subject matter awareness, focus, sharing the information, education and dissemination etc. The Chairman invited the members to propose changes or ideas, if any to modify the scoping document of the WG-VE.

WG-VE Minutes Item 3: Internal Workshop of the WG in September 2019, Bali, Indonesia

6. As planned, an internal workshop of the WG-VE was conducted on 04 September 2019 and following two presentations were made by the WG Chair:

(a) Value Engineering Opportunities and Challenges

(b) Summary of the publication 'Value Engineering for Saving in Irrigation, Drainage and Flood Projects'

WG-VE Minutes Item 4: Publication of the TF-VE

7. During the meeting, a draft publication of the WG entitled 'Value Engineering for Saving in Irrigation, Drainage and Flood Projects' was discussed and submitted the final draft version (in word file) of the TF publication to the ICID CO for circulation amongst WG members and their NCs for their comments/suggestions, if any.

8. Members were advised to submit comments on the draft version by end of December 2019. Members with experience in Value Engineering such as Japan and Malaysia were also encouraged to contribute their country case studies to enhance the book. The Chairman also proposed that an e-book version is produced together with the hardcopy book. WG-VE will also request assistance from ICID CO to finance the publication which until now has been self-financed by the Chair.

WG-VE Minutes Item 5: Dissemination of information - Website

9. During the meeting, WG Chair requested members to provide material, document, reports, presentations etc. for uploading on the website to enrich contents of the WG website. After discussion, it was agreed to upload all presentations related to internal workshop of the WG-VE so as to make available these to the members through the website http://tf-ve.icidonline.org/ .

WG-VE Minutes Item 6: Closure Report of the TF-VE

10. It was noted that the finalized Closure Report of the erstwhile TF-VE is yet to be circulated to WG members and their NCs for comments/suggestions, if any. It was decided that Chair of the WG will submit closure report of the TF to ICID CO for circulation amongst members of the TF for their views and comments, if any.

WG-VE Minutes Item 7: Any other business

11. It was noted that the members from Philippine National Committee participated in the meeting of the WG as Observers. They informed the WG that they are planning to organize a workshop on Value Engineering. WG will support the workshop by presenting paper and/or presentation.

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MINUTES OF THE 4TH MEETING OF THE WORKING GROUP ON SUSTAINABLE ON-FARM IRRIGATION SYSTEM DEVELOPMENT (WG-SON-FARM)

04 September 2019, 14.00-16.00 hours
Bali, Indonesia

Strategy Theme: On-Farm

Presented by the Chairman

Year of Establishment: 2016 **Extended the completion of the Mandate: 2022**

Mandate: (a) On-farm irrigation structures and water distribution system networks are properly designed, installed, managed and maintained; (b) Soil moisture is monitored, technical and management measures for enhancing the water infiltration and retention capacities of soils are investigated and implemented; (c) Trade-offs among on-farm irrigation technologies, socio-economic and environmental benefits are optimized; (d) Innovative local institutional arrangements are developed and promoted for operation and maintenance; (e) Top-notch scientific and development relevant research is conducted and its results are translated into actionable recommendations.

Members Present: (1) Dr. A.K. Randev, Chair (India); (2) Mr. Suman Sijapati, Secretary (Nepal); (3) Dr. Graziano Ghinassi (Italy); (4) Prof. Chang Eon Park (Korea, Rep. of); (5) Dr. Teoh Chin Chuang (Malaysia); (6) Dr. Chen, Ching-Tien (Chinese Taipei); (7) Dr. Yu-Min Wang (Chinese Taipei).

Observers: (1) Dr. Keigo Noda (Japan); (2) Dr. Petra Schmitter, IWMI representative (Myanmar); (3) Yu-Chuan Chang (Chinese Taipei); (4) Shiang-Min Chen (Chinese Taipei); (5) Dr. Wen-Shon Lin (Chinese Taipei); (6) Dr. Yong Tryjon (Chinese Taipei); (7) Rui Qi, Chen (Chinese Taipei); (8) Yu-Ting Weng (Chinese Taipei); (9) Tzu-Hsuan, Wen (Chinese Taipei).

Website: http://wg-on-farm.icidonline.org/

WG-SON-FARM Minutes Item 1: Action taken report by Chair

1. At the onset, Chair presented the report on the actions taken on the decisions and proposals of the working group at its last meeting held at Saskatoon in August 2018.

2. Chair Dr. Randev informed the meeting that online / virtual meeting of the Joint Session of Strategy theme "On-Farm" was organized by the Central Office on 31 May 2019 in which Chairs of the three workbodies viz. WG-SON-FARM, WG-WATER&CROP and WG-NCWRI were involved in discussions along with other members. The Chair informed about the outcome of the meeting emphasizing that presentations having commonality among the mandate of three Working Groups was presented in the Joint meeting of the Strategy Theme on 5 Sept 2019.

3. The group noted that Dr Haile was absent in the meeting and hence WG agreed to discontinue the membership of Dr Haile. Mr. Mohd Yazid bin Abdullah (Malaysia) had not contributed to the activities of the group during last two years so recommended to be discontinued. The membership of the new member, Dr Teoh Chin Chuang, nominated by the Malaysian National Committee (MANCID) was accepted for the membership of the group by the members of the WG. It was proposed to replace Mr. Taku Mori in place of Dr. Akira Iwamoto as he retired from the service. Membership status is given in **Annex 4 (page 27)**.

WG-SON-FARM Minutes Item 2: Road Map to ICID Vision 2030 – Status of activities on sustainable on-farm irrigation

4. The group reviewed the activities as part of Road Map to ICID Vision 2030 and updated the progress (refer **Annex**). At the meeting, country over view paper titled "On Farm Irrigation Systems in Italy" by Dr Graziano Ghinassi (Italy) and thematic paper titled "Environment Friendly Management of Probiotic Rice Intensification in Taiwan" by Pro Yu-Min Wang (Chinese Taipei) were presented after completing the agenda items. Mr Chris Nicholson and Mr Nick Ottalloran presented a paper titled 'Improved Decision Making on Overhead Spray Irrigation Systems' in the meeting of Joint Session on Strategy Theme "On-Farm" on 5 September 2019. The presentation covered the details of field survey conducted over 20 places, data analysis, findings and practical use of the methodology for making better decisions. For the next year, three members namely Mr. Taku Mori (Japan), Dr. Teoh Chin Chuang (Malaysia) and Prof. Chang Eon Park (Korea, Rep. of) agreed to present one paper (each) in the next meeting of the WG going to be held in Australia in 2020.

WG-SON-FARM Minutes Item 2.1: Publications of the Working group

5. After discussion with the Ex-Chair President Hon. Felix Reinders, Chair Dr Randev informed the members that the finalization of the article entitled "Improvement of the on-farm irrigation systems using simple water control, measuring and application devices" is an useful document and will be submitted to the ICID Central Office and second paper entitled "Micro irrigation for smallholders and greenhouses" by Kyoto from Japan will again be taken up for its possible publication in the ICID Journal.

WG-SON-FARM Minutes Item 3: Collection and collation of micro and sprinkler data

6. Regarding access to the website and providing the updated information in respect of data pertaining to the countries so that the datasheet of Sprinkler and Micro Irrigation can be updated regularly, Chair informed the members of the WG that a questionnaire on Sprinkler and Micro Irrigation data will be modified and sent to the Central office for collection of data from the National Committees for which the National Committees of USA and Turkey have provided the updated data. The Chair emphasized the need to have same basis with respect to time when publishing any data for further collation or before publication in ICID report. The updated table of total sprinkler and micro area (in descending order) is available at http://www.icid.org/sprinklerandmircro.pdf.

WG-SON-FARM Minutes Item 4: Dissemination of activities of WG

WG-SON-FARM Minutes Item 4.1: Website of the group

7. Members were requested to see the website of the working group http://wg-on-farm.icidonline.org/ which was fully updated including new membership list, agenda, minutes and presentations made during the meeting. The members were also requested to share information, knowledge & experience and provide papers, presentations, articles, reports etc. related to any outcome of their research or development efforts in their respective fields for uploading on the WG website for wider dissemination. The members suggested to upload new questionnaire finalized for updating data and presentations made in the meeting of the WG on the website of the WG.

WG-SON-FARM Minutes Item 4.2: Webinar/ Web based seminar

8. The group noted that Dr. Graziano Ghinassi (Italy) delivered an ICID webinar on the topic 'Smart technology to reduce energy consumption for water spreading and pipe production in hose reel sprinkler irrigation' on 5 December 2018. The proceeding of the webinar is available at <http://www.icid.org/icid_webinar_13.html>.

WG-SON-FARM Minutes Item 5: Updating Multilingual Technical Dictionary (MTD)

9. TF-MTD meeting was held on 3 September 2019 and the members of the WG were acquainted with list of chapters of the MTD and informed to undertake the review of the concerned terms under chapter of the WG depending on their domain of expertise and suggest changes/ modifications and additions of new term(s), if any along with pictures, links and videos related to respective term(s). The members were also requested to go through the ICID website for the said purpose (http:/www.icid.org/xinlogin/login.php).

WG-SON-FARM Minutes Item 6: Joint Session of Strategy Theme On-Farm, September 2019, Bali

10. The members of the WG were informed that a Joint Session of three WGs under Strategy Theme "On-Farm" will be organized on 5th September 2019 at Bali during 70th IEC and WIF3 and they were requested to participate in the Joint Session of Strategy theme On-Farm. WG-WATER & CROPS, WG-SON-FARM and WG-NCWRI fall under the strategy theme 'ON-FARM'. In this respect, 1s online WebEx meeting was organized on 31 May 2019. Mr. Carl Walter, Vice Chair of the WG informed that he will make a presentation of paper in this joint meeting.

WG-SON-FARM Minutes Item 7: 9th International Micro Irrigation Conference, 16-18 January 2019, Aurangabad, India – Feedback

11. The Chair informed the members that the 9th International Micro Irrigation Conference (9IMIC) was successfully organized from 16-18 January 2019 in Aurangabad, Maharashtra, India on the theme 'Micro Irrigation in Modern Agriculture'. Around 700 delegates from 30 countries participated in the conference that provided a global platform to professionals and exhibitors to showcase their knowledge and technologies from around the world. The members of the WG were informed further that the recommendations of the 9IMIC can be accessed at https://www.icid.org/9th_microirri.html.

WG-SON-FARM Minutes Item 8: International Young Professionals Training Program, 22-25 April 2019, Gyeonggi Province, Republic of Korea – Response from YPs on questionnaire

12. The members of the WG were informed about the International Young Professionals Training Program (YP-TP) on "Climate Resilient Smart Irrigation Systems", organized by the Korean National Committee (KCID) from 22-25 April 2019 at Gyeonggi Province (Republic of Korea) in collaboration with the Chinese National Committee (CNCID) and ICID ; as well as KCID also organized an International Workshop on "Irrigation Technologies to Mitigate Climate Change" on 26 April 2019. During YP training, thirty-four young professionals from 17 countries participated and gained the knowledge. All the members of the WG were informed to go through the responses of Young Professionals of various countries at https://www.icid.org/ypqnresponse.pdf. After discussion, it was felt that some of the responses relates to the mandate of the WG and the group may like to take note of the views and suggestions from YPs of different countries.

WG-SON-FARM Minutes Item 9: Any other business

13. The members of the WG were informed about the questions raised by PH Seed Nairizi, firstly on question "Does technology help to save water ?" raised in the last meeting at Saskatoon. This was discussed in the meeting and the members opined that as scientifically water saving has been recorded under field situations during technological interventions with respect to on farm irrigation systems, so it should not be a matter of confusion. Secondly, related to definition of Irrigation Efficiency, it was considered by the members that scale specific and input/ output related efficiencies have related meanings and way of interpretation discipline wise and for definition of Irrigation Efficiency – it may be approached in the MTD under related chapter on On-Farm Water Management. Any addition or deletion in the definition given in MTD if found/ thought justifiable may be communicated to the CO.

14. After completing the agenda items, two presentations viz. one overview paper and second thematic paper were made as mentioned under item 2.

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Annex [Appendix XXIII, Item 2]

ROAD MAP TO ICID VISION 2030 – ACTIVITIES OF WORK BODIES

Goals/ Strategies	Activities	Outcomes/ Outputs	Milestone for Year 2017	Milestone for Year 2018	Milestone for Year 2019	Milestone for Year 2020	Milestone for Year 2021
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		
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
	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	
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
	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
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
	5.2 Datasets for Pressurised Irrigation Systems	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)

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MINUTES OF THE 12TH MEETING OF THE
WORKING GROUP ON WATER AND CROPS (WG-WATER & CROP)
4 September 2019, 11:15-13:15 hours
Bali, Indonesia

Strategy Theme: On-Farm

Presented by the Chairman

Year of Establishment: 2007 **Completion of the Mandate: 2019**

Mandate: To promote the efficient use of water in crop production, to provide input to test crop water models, to investigate the use of energy crops for bio-fuel production, to develop techniques for rainfall harvesting, to promote the multifunctional use of water in paddy (rice) cultivation, to investigate the adaptation of agriculture to climate change and to promote low input agriculture.

Members Present: (1) VPH Dr. Ragab Ragab (UK), Chairman; (2) VP Dr. Kaluvai Yella Reddy (India), Secretary; (3) VP Dr Marco Arcieri (Italy); (4) Prof. Won-Ho Nam (Korea); (5) Dr. Chung-Feng, Ding (Chinese Taipei); and (6) Prof. Dr Zeinab Hussien Behairy (Egypt).

Observers: (i) Aditya Kiski Tayfani (Indonesia); (ii) Tseng Ching Long (Chinese Taipei); (iii) Teng Sheng Lin (Chinese Taipei); (iv) Kang-Han Fan (Chinese Taipei); (v) Ruey-Chykoo (Taiwan); (vi) Karanjeet Singh (India).

Website: http://wg-crop.icidonline.org

WG-W&C Minutes Item 1: Action Taken Report by Chair

1. The Chair welcomed the members and briefly presented the report on the actions taken on the decisions and proposals made since its last meeting in Saskatoon, Canada in August 2018.

2. The Chair informed the members that the paper written by his student using the SALTMED has been published in Irrigation and Drainage Journal and received Best Paper Award for the year 2018. The software is now being freely downloaded by many researchers/organizations from ICID website and used widely.

3. The Chair informed the members that as per the guidelines of the ICID to conduct Online/WebEx meetings, one WebEx meeting was organized on 31st May 2019 for Joint Session of Theme 'On Farm' and the Chair, Vice-Chair and Secretary of the Working Groups have participated along with the other group representatives and Central Office. The modalities of organizing joint session during WIF3 were discussed.

4. The Uzbekistan National Committee of ICID has nominated Eng Karshiyev Rustum Jurayevih (Uzbekistan) for the membership of the WG. He was accepted as 'Provisional member' since he was not available at the Bali meeting and he has to appear in person in Sydney meeting in 2020 for approval of his membership. In October 2019, the Irrigation Australia Limited (IAL) has nominated Ir. Felipe Dantas (Australia) for the membership of the WG. In consultation with the Chair, the nomination of Ir. Felipe Dantas was accepted as 'Provisional Member' until the next meeting. The Membership status is given in **4 (page 27).**

WG-W&C Minutes Item 2: Road Map to ICID Vision 2030: Activities on efficient use of water in crop production

5. The Chair discussed and briefed the activities of the WG such as Goals/Strategies, Actions, Outcomes/Outputs, Milestones and assigning Lead Persons as part of Road Map to ICID Vision 2030 and updated the progress ( ). He informed the efforts are being made continuously in realising the objectives/milestones.

WG-W&C Minutes Item 3: Multi-functionality of water uses in paddy (Rice) cultivation

6. During the Saskatoon meeting, the WG decided to bring out a 'Technical Report' based on the papers contributed by its members. The WG presented the 'Technical Report' of the Group in the meeting. The report is a consolidation of contributions and collection of information from members on various topics under the mandate of the group. NCs of China, Indonesia and Philippines were presented their papers for the technical report of the WG. The reports from Dr. Graziano Ghinassi was presented by Dr Marco Arcieri (Italy), while the Dr. Leon van Rensburg (South Africa) through Prof. Sylvester Mpandeli, Dr. Chung-Feng, Ding through Dr. Hsiao-Weng Wang (Chinese Taipei), Prof. Won-Ho Nam (Korea) and Mr. Chalearmkiat Kongvichenwat (Thailand) were awaited.

WG-W&C Minutes Item 4: Updating Multilingual Technical Dictionary (MTD)

7. The Chair briefed the house about the importance of the Updating Multilingual Technical Dictionary (MTD). He requested the members to contribute for updating the MTD with new 'words/phrases' of importance. He suggested to consider the term 'Water Productivity' as an example and know how it is called in different languages.

WG-W&C Minutes Item 5: International Workshop on 'Improving the water use efficiency and productivity within water energy food nexus' in September 2019 at Bali, Indonesia

8. The Chair informed the members that the WG has organized an International Workshop entitled 'Improving the Water Productivity within the Water Energy Food Nexus' as part of WIF3, Bali on 1st Sept 2019. The total number of 11 abstracts have been accepted by the Forum and 7 presenters managed, which were attended workshop. . However, most of the papers focused on the relation between water and crop. Only one paper focused on the nexus of water-energy-food, as a whole.

WG-W&C Minutes Item 6: ICID-IWRA Collaboration

9. The Chair informed that the collaboration between International Water Resources Association (IWRA) and International Commission on Irrigation and Drainage (ICID) does not progress as desired. He said it will be pursued seriously for the mutual benefit of the two organizations.

WG-W&C Minutes Item 7: Publications of the Working Group

10. The Chair informed the members that the paper presented by the representatives from Australia in the workshop on 1st Sept 2019 was recommended for the publication in the Special Issue of Irrigation and Drainage Journal. As for the Technical Report status of the WG, WG Chair explained and requested the other contributors to submit their papers for compilation, soon.

WG-W&C Minutes Item 8: Disseminate of activities of WG

WG-W&C Minutes Item 8.1: Website of the Group

11. The Chair informed that the SALTMED software is available on ICID website for anyone to access and use. He briefed the status of usages of the Software by various users and credited the web development to ICID for its efforts. He requested all the members to send relevant papers and contributions to him for uploading in the website.

WG-W&C Minutes Item 8.2: Web-based Seminar/e-discussions

12. The Chair encouraged the members to use platforms such as e-discussions, web-based seminars on the relevant topics based on the mandate of WG. The Chair requested the members to come forward and develop and conduct the webinars/e-discussions in 2019-2020 in the area of their specialization.

13. It was decided to conduct two webinars i.e. (i) water use efficiency and productivity, and (ii) the state-of-the-art of the irrigation water scheduling and crop water requirement for the WG before starting the 24th ICID Congress to be held in September 2020 at Sydney, Australia. At the end of the seminar, the WG members participate to discuss about the progress of the group activities.

14. The Secretary of the WG Dr K. Yella Reddy has offered to conduct one Webinar on 'Adaptive Measures for Improved Water Management at Farm Level'.

WG-W&C Minutes Item 9: Merger of WG-BIO-Fuel with WG-Water & Crop

15. During the Bali meeting, WG Chair informed that the merger with Working Group on Water for Bio-Fuel and Food (WG-BIO-FUEL), which can be the basis to broaden the Working Group into Water-Energy-Crop.

WG-W&C Minutes Item 10: New Sub- topic 'Water Use and Productivity':

16. At Saskatoon meeting, it was proposed to create a new sub-topic 'Water Use and Productivity' under the WG mandate to work out water requirements of different crops under greenhouse conditions. The 'Task Team' responsible for this sub-topic was composed of: PH Dr Saeed Nairizi, VP Dr K.Yella Reddy, VPH Dr Ragab, and Dr. Chung-Feng, Ding (Chinese Taipei). The progress was discussed and advised to prepare the details and review though web-based meetings.

17. During the Bali meeting, Mr. Syaiful Mahdi (Indonesia) will make his efforts on preparation of report on *'Effective Rainfall'* in Crop Water Requirement as part of the rain-fed agricultural water management. The Chair explained the concept of effective rainfall and how it is affected with crop and land cover.

WG-W&C Minutes Item 11: Joint Session of Strategy Theme On-Farm, September 2019, Bali

18. The Chair informed that the Joint Session of Strategy Theme On-Farm will be held on 5th Sept 2019 and requested the participation of all the members of the WG.

WG-W&C Minutes Item 12: International Young Professionals Training Program, 22-25 April 2019, Gyeonggi Province, Republic of Korea – Response from YPs on Questionnaire

19. As agreed at Saskatoon meeting in August 2018, the Korean National Committee (KCID) organized the International Young Professionals Training Program (YP-TP) on "Climate Resilient Smart Irrigation Systems" from 22-25 April 2019 at Gyeonggi Province (Republic of Korea) in collaboration with the Chinese National Committee (CNCID) and ICID. KCID has also organized an International Workshop on "Irrigation Technologies to Mitigate Climate Change" on 26 April 2019 to provide an opportunity to the young professionals to have a broader and in-depth exposure to emerging irrigation technologies and management scenarios considering the urgent need for a sustainable climate change-resilient agriculture sector. During the YP training, thirty-four young professionals from 17 countries participated and gained the knowledge. As part of YP training, each YP was requested to provide their response to the following five questions: (i) How the recent climatic extremes are affecting water management for agriculture in your country/region? (ii) What new and innovative approach and technologies are being adopted to address these climate change issues? (iii) What management approach and solutions are being considered to adapt to climate change? (iv) How would you like to modify/augment water management practices and policies in region to generate a long term strategy? (v) What is your view and contribution to promote climate smart agriculture?

20. The members of WG-W&C and Vice Presidents of ICID Dr. K. Y. Reddy and Dr. Marco have attended and trained the YPs on 'Micro Irrigation and On-Farm Water management'.

21. During the WIF3, Bali, one Young Professional (YP) Training Workshop was conducted by the Dr K Y Reddy, VP on the topic 'Adoptive Measures in Farm Level Water Management to cope with Climate Change'. Three presentations, film show on use of sensors in water management and group discussions were part of the training program, in which 40 participants along with YPs were attended.

WG-W&C Minutes Item 13: Tenure of the Working Group (Summary Report)

22. The tenure of the WG-W&C is up to 2019 as per the original mandate. Since now the mandate is enlarged and Strategy Theme – On Farm is created, it was decided to extend the tenure up to 2025.

WG-W&C Minutes Item 14: Presentations by the members

23. VP Dr. Marco Arcieri made a presentation on 'Rice Cultivation in Italy under the threat of climate change'. The presentation shows that dry land rice cultivation could be promising solution for food resilience and water saving under the threat of climatic change

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[Appendix XXIV, Item 2]

ROAD MAP TO ICID VISION 2030 – ACTIVITIES OF WG-WATER & CROPS

Goals/ Strategies	Activities	Outcomes/ Outputs	Milestone for Year 2017	Milestone for Year 2018	Milestone for Year 2019	Milestone for Year 2020	Resolution Lead Person
Goal A: Enable higher crop productivity with less water and energy							
Strategy 5: 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	To publish it	Merge Item 5 and B1. Dr Marco Arcieri (Italy)
Goal B: Be a catalyst for change in policies and practices							
Strategy B1: 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	To publish it	Dr Marco Arcieri (Italy)
Goal C: Facilitate exchange of information, knowledge and technology							
Strategy C3: Promoting Regional Cooperation	3.2 International Workshop/seminar on 'Improving Water Productivity in the frame work of Water Energy Food Nexus'	Workshop proceedings	Announcement of workshop	Orgnaising Workshop in Canada	Workshop organized- Not upto the mark	Orgnaising Workshop in Australia with increased scope	VPH Laurie C Tollefson (Canada)
Goal D: Enable cross disciplinary and inter-sectoral engagement							
Strategy D2: Developing Technical Documents in Non-technical Language	2.2 Crop – Water-Energy Nexus	Technical Report		Workshop		Workshop	Dr K Y Reddy (India)
Goal E: Encourage research and support development of tools to extend innovation into field practices							
Strategy E2: Strengthening Extension Services with AWM information							Dr Nader Heydari (Iran)
Strategy E3: 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		Dr Ragab Ragab
Goal F: Facility Capacity Development							
Strategy F3: Technical Training of Young Professionals from Member countries	3.9 Training on Crop Water Models Aqua Crop	Conduct Training workshops	Training workshops		Training workshops		All Members are responsible.

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MINUTES OF THE 1ST MEETING OF THE WORKING GROUP ON USE OF NON-CONVENTIONAL WATER RESOURCES FOR IRRIGATION (WG-NCWRI)

05 September 2019, 11:15-13:15 hours
Bali, Indonesia

Strategy Theme: On-Farm

Presented by the Chair

Year of Establishment: 2018 **Completion of the Mandate: 2024**

Mandate:(a) Exchanging knowledge, experience and data as well as networking on the topic in order to be up-to-date with new developments, methods and approaches; (b) Preparing comprehensive reviews and prospects with respect to different aspects of NCWR; (c) Producing technical manuals, guidelines or standards with respect to all NCWR including waste water, drainage water and saline/brackish water; (d) Organizing international workshops, seminars and meetings on the NCWR topic; (e) Producing documents on successful case studies with the new developments with respect to NCWR presented by the members from different countries; (f) Enlarging the membership of the WG by encouraging more member countries where the use of non-conventional waters is a common practice for irrigation management; (g) Finalizing the publication of a Technical Paper pending from the activities of the erstwhile Working Group on Use of Poor Quality Water for Irrigation (WG-PQW).

Members Present: (1) Dr. Wenyong Wu, Vice Chair/Secretary (China); (2) Dr. Chihhao Fan (Chinese Taipei).

Observers: (1) Robyn Johnston (Australia); (2) Anton Urfels (Germany); (3) Zeinah Behery (Egypt); (4) Dr. Alok Sikka (IWMI-India Representative); (5) Vinod Kumar Tiwari (India); (6) Kwang Yoon (Korea, Rep. of); (7) Dr. (Ms.) Naoko Koshiyama (Japan); (8) Dr. Fumi Okira (Japan); (9) Shuhei Yoshimoto (Japan).

WG-NCWRI Minutes Item 1: Introduction by the Chair

1. Secretary Dr. WU Wenyong introduced the mandate of the Working Group on Non-conventional Water Resources for Irrigation (WG-NCWRI) and conducted the meeting as Vice Chair in absence of Chair Anna Tedeschi.

2. The group reviewed the nominations of Mr Mohamed Ouhssain (Morocco), Dr Ratan Chand Jain (India), and Dr. Chihhao Fan (Chinese Taipei) received for the membership of the Working Group. As Dr. FAN Chihhao attends the WG meeting and introduces himself, the group accepted him as member while Mr Mohamed Ouhssain and Dr Ratan Chand Jain were absent from the WG meeting hence, they were accepted as Provisional Members. Membership status is given in **Annex 4 (page 27)**.

3. Seven members were absent, Dr. Wenyong suggested that Central Office should contact the concerned National Committee to make sure that the member can contribute to the group and attend the meeting regularly.

WG-NCWRI Minutes Item 2: Road Map to ICID Vision 2030 – Activities on non-conventional water resources for irrigation

4. The group discussed the Road Map to ICID Vision 2030 and provided latest updates to PCTA for inclusion. (*refer **Annex***). In December 2019, the draft document on the Use of Non-conventional Waters applied in case studies in their countries is expected to be finished, Dr. Tasuku Kato and Dr. Muhammad were responsible for the draft document. In December 2019, the new work plan will be finalized, Chair Anna Tedeschi and Dr. WU Wenyong would be responsible for the work plan.

5. In June 2020, the draft document of reclaimed water irrigation guideline is expected to be finalized, Dr. WU Wenyong is responsible for the draft document. Dr. WU Wenyong made an interesting presentation titled “Fate of nonylphenol in soil-crops system with long-term reclaimed water irrigation”.

WG-NCWRI Minutes Item 3: Discuss and develop work plan based on new mandate

WG-NCWRI Minutes Item 3. 1: Prepare a state-of-the-art document on use of NCWR

6. Dr. Fumi Okura reported the results of Japanese case study on behalf of Dr. Tasuku Kato and Dr. Muhammad Munir Ahmad unable to attend the Bali meeting. After discussion with the members, Vice Chair suggested that the draft document on the use of non-conventional waters should be finalized by the end of 2019. Dr. Tasuku Kato and Dr. Muhammad Munir Ahmad are responsible for these case studies.

WG-NCWRI Minutes Item 3. 2: Developing manuals/ standards with respect to NCWR

7. Vice Chair suggested to prepare for reclaimed water irrigation guideline for ICID and suggested that the guideline should include the parts of evaluation, feasibility allocation, crop classification, irrigation technology, monitoring and assessment. Dr. WU Wenyong has kindly accepted the responsibility for the draft document and for this purpose he will contact other WG members and invite more members to participate in the guideline preparation.

WG-NCWRI Minutes Item 3. 3: Organizing international workshop on NCWR topics

8. The WG suggested organizing International Workshop on Non-conventional Water Resource for Irrigation during 71th IEC in Sydney (Australia) in 2020, if possible. Vice Chair invited Chair Anna Tedeschi and all members to come forward and contribute in organizing the above workshop.

WG-NCWRI Minutes Item 3. 4: Joint Session of Strategy Theme On-Farm, September 2019, Bali

9. Vice Chair WU Wenyong provided a brief introduction of the organization of Joint Section of Strategy Theme “On-Farm” organized jointly by WG-WATER & CROPS, WG-SON-FARM and WG-NCWRI and also briefed about the 1st online WebEx meeting organized on 31 May 2019. Vice Chair WU Wenyong made an interesting presentation “Nonconventional Water Resource Irrigation (NCWRI) in China: Review and Development Strategy” in the Joint meeting in 5 September 2019.

WG-NCWRI Minutes Item 3. 5: Publication of erstwhile WG-PQW

10. Vice Chair WU Wenyong discussed the preparation of the technical papers, and proposed to publish the paper “Nonconventional Water Resource Irrigation (NCWRI) in China: Review and Development Strategy”. Vice Chair requested Chair Anna Tedeschi to appoint the member who will be responsible to synthesize theses papers into technical report and e-publish on the ICID website (under WG webpage), if possible. Dr FAN Chihhao suggested that the authors of technical papers should give representations in Sydney meeting in 2020.

WG-NCWRI Minutes Item 3. 6: Capacity building- training and workshop

11. Dr. Alok Sikka, a representative from IWMI suggested that the WG can organize a Workshop in Sydney meeting in 2020.

WG-NCWRI Minutes Item 4: Any other business

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Annex [Appendix XXV, Item 2]

ROAD MAP TO ICID VISION 2030 – ACTIVITIES OF WORK BODIES

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
A7. Strategy: Using Wastewater or Poor-Quality Water for Irrigation	7.1 Compile best practices for sustainably managing and using non-conventional water resources	Case studies			State-of-the-art document on use of NCWR		
	7.2 Contribute to the establishment of national policy for re-use of treated wastewater in irrigation	Position Paper			Position Paper of Reclaimed water irrigation in China		
	7.3 Participate in research on the development of sewage	Guidelines			Reclaimed water irrigation guideline		

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

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MINUTES OF THE 4TH MEETING OF THE WORKING GROUP ON IRRIGATION DEVELOPMENT AND MANAGEMENT (WG-IDM)

05 September 2019, 14.00-16.00 hours (Session I) and 16.15-18.15 hours (Session II)
Bali, Indonesia

Strategy Theme: Schemes

Presented by the Chair

Year of Establishment: 2015 **Completion of the Mandate: 2021**

Scope: (a) assessment of consumptive use of water for irrigation and resulting water balance at system level; (b) water demand management according to available resource(s) and system capacity; (c) assessment of water loss in various components of irrigation systems, appraisal of water made available for another use downstream (non-consumptive); (d) ground water development and management for irrigation including conjunctive use of surface and groundwater in irrigation, artificial recharge of aquifers from canals "losses" and "excessive" irrigation; (e) water measuring methods and devices and relevant technology (flow rates and volumes); (f) drivers for and resistances at system level to improve irrigation management; (g) social issues to be considered along with technical and economical ones; (h) management of multi-use hydraulic systems, and interdependence between uses; (i) performance evaluation of irrigation schemes and benchmarking; (j) ways towards economic performance enhancement (cost reduction and efficiency improvement).

Members Present: (1) Ms. Mary Jean M. Gabriel, Chair (South Africa); (2) Dr. Katsuyuki Shimizu, Secretary (Japan); (3) Mr. Ming-Young Jan (Chinese Taipei); (4) Dr. Narges Zohrabi (Iran).

Observers: (1) Akie Mukai (Japan); (2) Ismayatim Bin Hamdan (Malaysia); (3) Auu Abubakar (Malaysia); (4) Gapar Asan (Malaysia); (5) Petra Schmitter (Myanmar); (6) Abegye Ibrahim (Nigeria).

Website: http://www.icid.org/wg_idm.html

WG-IDM Minutes Item 1: Action taken report by Chair

1. At the onset, the Chair welcomed all the members and briefed on the latest status on the action point emerging from the minutes of the previous meeting of the WG held at Saskatoon, Canada. Chair encouraged WG members to make full use of WebEx platform for virtual meeting to ensure regular contribution as well as discuss and initiate follow-up actions emerging from the minutes of the previous WG meeting and review the progress of the action points.

2. Eng. Abd Elsalam Mohamed Salih Idriss (Sudan) and Mr. G.L. Bansal (India) have not contributed to the activities of the group during last two years so they were recommended to be discontinued and new members would be invited from the above National Committees as well as other NCs. Membership status is given in **Annex 4 (page 27**).

WG-IDM Minutes Item 2: Road Map to ICID Vision 2030 – Status of activities on irrigation development and management

3. The group discussed the Road Map to ICID Vision 2030 and provided latest updates (refer **Annex**) to PCTA for inclusion of Goal C4 i.e. Strategy 4.17 “Overview paper on the Irrigation Development for publication in Irrigation and Drainage (IRD)” that was taken by Dr. Ming-Young Jan (Chinese Taipei).

WG-IDM Minutes Item 2.1: Publication of the WG

4. Chair requested members to provide their inputs to the documents entitled “Norms and standards of irrigation development” and “Condensed overview of existing documents and practical examples on water balance approach” and also make presentations related to the mandate of the group

WG-IDM Minutes Item 3: Presentation by the working members

5. Dr Katsuyuki Shimizu (Japan) made a presentation on “Investigating and providing information on the positive amenities, services and goods provided by irrigation systems”. Ms. Marry Jean Gabriel also made a presentation on “Latest research on irrigation management in South Africa” during the meeting.

WG-IDM Minutes Item 4: Exchange of information, knowledge & networking -website

WG-IDM Minutes Item 5: Website of the WG

6. The group noted that the website of the working group http://www.icid.org/wg_idm.html is fully updated with new membership list, agenda, minutes etc. Chair encouraged members to share information, knowledge & experience and provide papers, presentations, articles, reports etc. related to any outcome of their research or development efforts at their respective working places for uploading on the WG website for wider dissemination.

WG-IDM Minutes Item 6: Webinars/ Web based seminars

7. The group noted the importance of the webinar and agreed that it is a very good platform of knowledge exchange so the Chair encouraged members to suggest topics for organization of the webinar.

WG-IDM Minutes Item 7: Updating Multilingual Technical Dictionary (MTD)

8. At the meeting, Dr. Amgad Elmahdi (Australia) informed to consider contribution in Arabic. Chair encouraged WG member to contribute to update MTD.

WG-IDM Minutes Item 8: Workshop on water accounting

9. The International Research Program for Irrigation and Drainage-Iran Regional Node (IRPID-IRN) affiliated to ICID successfully organized the “International Training Workshop on Water Accounting- Concepts and Tools” with the support of leading institutions and specialists from 23-26 February 2019 in Iran (23 February in Tehran; 24-26 February in Ahwaz). Dr Narges Zohrabi (Iran) reported the workshop on water accounting held in IRAN in 2018. WG members discussed about water accounting to confirm their understanding.

WG-IDM Minutes Item 9: International Young Professionals Training Program, 22-25 April 2019, Gyeonggi Province, Republic of Korea – Response from YPs on questionnaire

10. The Chair informed that International Young Professionals Training Program (YP-TP) on “Climate Resilient Smart Irrigation Systems” held in Korea in April 2019 was organized by KCID in collaboration with the Chinese National Committee (CNCID) and ICID. WG suggested to digest and try to utilize the outcomes of the Program YP-TP for the WG activities. A representative from South Africa informed that the delegates from South Africa attended the workshop and training program.

WG-IDM Minutes Item 10: Any other business

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Annex [Appendix XXVI, Item 2]

ROAD MAP TO ICID VISION 2030 – ALLOCATION OF TASKS

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 Ming-Young Jan / Ms M J Gabriel
	1.2 Report or case studies on recent development in Irrigation Drainage Management	Case studies Presented in WG meetings	Dr Narges Zohrabi
A6. Strategy: Improving 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 Shimizu
	6.7 Identify drivers and social resistances within the systems to improve Irrigation management	Report	TBD
Goal B: Be a catalyst for change in policies and practices			
B1.Strategy: Support development of appropriate policies	1.14 Report on South-South cooperation for capacity development in the field of irrigation management	Report	TBD
B3. Strategy: Integrated Irrigation and Drainage Management	3.1 Assess methods and develop guidelines on relevant water balance approach	Guidelines	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	TBD
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 MJ Gabriel
	4.17 Overview paper on the Irrigation Development for publication in Irrigation and Drainage (IRD)	Technical Paper	TBD
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	TBD
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	TBD

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MINUTES OF THE 5TH MEETING OF THE WORKING GROUP ON INSTITUTIONAL ASPECTS OF IRRIGATION/ DRAINAGE SYSTEM MANAGEMENT (WG-IOA)

05 September 2019, 14.00-16.00 hours (Session I)
05 September 2019, 16.15-18.15 hours (Session II)
Bali, Indonesia

Strategy Theme: Schemes

Presented by the Chair

Year of Establishment: 2015 **Completion of the Mandate: 2021**

Scope: The WG will investigate, analyse and disseminate information and knowledge on following issues: (1) Legal Framework and Organizational Structures of Water User Association for Water Supply Services including- (a) institutional and organisational requirements for sustainable operation and maintenance of irrigation/drainage systems, (b) improvement of organisational arrangements for management, operation and maintenance of irrigation/drainage systems, (c) financing of operation and maintenance of irrigation/drainage schemes, (d) approaches and requirements for water regulatory authorities, land property questions, water rights, and (e) roles, responsibilities and requirements for sustainable Water Users Associations (WUA); (2) Participatory Irrigation Management and Irrigation Management Transfer covering (a) approaches and conditions for successful Participatory Irrigation/Drainage Management (PIDM), and (b) approaches and conditions for successful irrigation/ drainage management transfers (IDMT), including legislation and institutional requirements for transfer of responsibilities and/or ownership of irrigation and drainage systems to water users associations; and (3) Public Private Partnership, and Mechanism for Cost Recovery covering (a) possibilities of and requirements for successful Public Private Partnerships (PPP) in irrigation/drainage, and (b) methods and mechanisms for charging of irrigation/ drainage services and determination of level of cost recovery.

Members Present: (1) VPH Dr. Hafied A. Gany, Chair (Indonesia); (2) Dr. Kazumi Yamaoka, Vice Chair (Japan); (3) Dr. Yu-Chuan Chang (Chinese Taipei).

Observers: (1) Dr. Narges Zohrabi (Iran); (2) Ching-Tien Chen (Chinese Taipei); (3) Yuan Tan An (Chinese Taipei); (4) Chiang Shih Chi (Chinese Taipei).

Webpage: http://www.icid.org/wg_ioa.html

WG-IOA Minutes Item 1: Action taken report by Chair

1. At the onset, the Chair welcomed all the members and briefed on the latest status on the action point emerging from the minutes of the previous meeting of the WG held at Saskatoon, Canada.

2. Mr. Franck Sanfilippo (France), Mr. Houshang Hasouni Zadeh (Iran), Mr. Ghassan Lutfi Ahmed (Iraq), and Ms. Hend Emad Alhendy (Iraq) neither attended the meeting nor contributed to the activities of the group for more than one year so the group suggested to discontinue their membership and invite new nominations from the NCs. Membership status is given in **Annex 4 (page 27)**.

WG-IOA Minutes Item 2: Road Map to ICID Vision 2030 – Status of activities on institutional and organizational aspects of irrigation

3. Chairman Dr. Hafied Gany explained that a paper is under publication by John Wiley & Sons Ltd. Entitled: “Present Status and Developments with respect to Roles of Stakeholders in Relation to the ICID Vision 2030”.

4. The above paper discusses the global review on the present status of irrigation development and management in line with stakeholders’ understanding and practices on Irrigation Vision 2030. The elucidation has addressed the related issues, with institutional and organizational aspects as the fundamental mechanism of stakeholder coordination. In line with the effort to comprehend the underlying status of irrigation and drainage development and management, five determinant aspects have been scrutinized in the analysis. These are: (i) human resources; (ii) institution and organization; (iii) technology for sustainable operation and maintenance (O&M); (iv) sustainable O&M funding; (v) effective regulatory instruments and enforcement. Particularly in the field of agricultural water management (AWM), it has been evident from a number of previous experiences that the absence or imbalance of an integrated relationship among any of the five aspects would bring about ineffectiveness of infrastructural functions. Therefore, institutional and organizational aspects must be reformed in line with the future direction stated by the ICID Vision 2030, among others for improving the crucial role of stakeholders toward sustainable AWM.

WG-IOA Minutes Item 2.1: Publication of the WG

5. At the meeting, Chair provided the following report as part of the action taken on the Saskatoon meeting:

Final Draft for Publication:

6. Soft Publication of Symposium Papers (under preparation by ICID Central Office); (2) Global Review of Institutional Reform in the Irrigation Sector for Sustainable Agriculture Water Management, Including Water Users Associations (on the way for ICID-Wiley Publication); (3) Present Status and Developments with Respect to Roles of Stakeholders in Relation to The ICID Vision 2030 (ready for publication by ICID-Wiley Publisher - sent on June 2019).

Other IOA related Publication:

7. WG Chair Mr. Gany submitted a paper titled "PIM" Procedures and Processes under the Small Holding Farming" for 8th Asian Regional Conference (ARC) held at Kathmandu in May 2018. Chair Dr. Gany contributed IOA related material to the soft publication, which was included in the proceeding of the ICID Symposium (Irrigation in Support with Evergreen Revolution) of 8th ARC. All material related with WG-IOA from 8 ARC was shared by the WG Chair with the members of WG-IOA for their reference through email on August 4, 2018. The proceeding was delivered by Nepal National Committee (NENCID) in January 2019.

Keynote paper publication:

8. A keynote paper was also given by Chair Dr. Hafied Gany during the Eight International Seminar on Institutional Challenges on Water Security in Irrigation System, FMIST held at Kathmandu, Nepal from 06-07 May 2019, which was also shared with the members on 4 June 2019. The proceeding is on the way for publication by FMIST (2019).

Relevant Publication with WG-IOA:

9. Chairman VPH Hafied Gany brought out a relevant publication titled "Subak Irrigation System in Bali: An Ancient Heritage of Participatory Irrigation Management in Modern Indonesia" which is available at ICID's website https://www.icid.org/wg_ioa.html. ICID Central Office had circulated the above book to all members of the WG.

WG-IOA Minutes Item 3: Presentation by the working group members

10. Dr. Kazumi Yamaoka, Vice Chairman of WG-IOA from Japanese National Committee (JNC-ICID); Japan International Research Center for Agricultural Sciences (JIRCAS) made an interesting presentation on "Changing the nervous mind of small scale farmers who are reluctant to invest for their development" during Plenary Session (III) under sub-theme 2 of WIF3. Dr. Kazumi Yamaoka informed that an order of one billion poor small scale farmers are still left behind in economic development. We should realize the Second Green Revolution in this century in the way of giving the most benefit to the numerous poor small scale farmers who are excluded from the economic development during the first Green Revolution in the late 20th Century. However, the situation calls on poor small scale farmers to increase their self-investment. Dr. Yu-Chuang Chang (Chinese Taipei) informed that there is need for large capital investment to introduce and implement Participatory Irrigation Management, and integrating the PIM and Management transfer of irrigation management. For instance, the government transfer in Chinese Taipei is currently initiating the transfer of irrigation to farmer, and the farmer is currently having no payment for irrigation water charge.

WG-IOA Minutes Item 4: Dissemination of activities of WG – Website of the group

WG-IOA Minutes Item 4.1: Website of the WG

11. Chair requested members to access the website of the WG and provide interesting articles/ papers/ presentations/ documents related to the activities of the group for uploading on the website.

WG-IOA Minutes Item 4.2: Webinars/ Web based seminars

8. Chair noted the importance of the webinars however, due to paucity of time, the item was not discussed.

WG-IOA Minutes Item 5: Updating Multilingual Technical Dictionary (MTD)

12. Dr. Yu Chuang Chang was assigned to represent the WG-IOA in the TF-MTD meeting. Dr. Chang reported that updation of MTD is being conducted on regular basis, but the progress is slow. Chair VPH Dr. Gany suggested to continue the process of updation and plan to make regular updating with the support of other members of the WG through e-mail on regular basis.

WG-IOA Minutes Item 6: International Workshop on Participatory Irrigation/ Drainage Management – Transfer, Approaches and Condition for Successful PIDM, September 2019, Bali

13. International Workshop on the theme: "Participatory Irrigation/ Drainage Management – Transfer, Approaches and Condition for Successful PIDM (IOA)" was organized on 1 September 2019 at Bali. The workshop was successfully organized wherein about 30 participants participated. Participants informed that the workshop materials presented from different region is highly meeting their expectations in respect of the planned objectives that would contribute remarkably to IOA of ID Management; particularly to PIM, legislation and institutional requirement for IDMT.

14. The general conclusion of the workshop are as follows: (1) Empowerment of I&O Requirements in transferring the responsibilities and/or ownership of irrigation and drainage system to WUA is one of the most important aspects to ensure for maintaining the success of PIDM including productivities of Micro Irrigation category; (2) Improvements of roles and legislation of irrigation service arrangement and extension facilities in modernization of irrigation management must be conducted through sustainably effective I&O Arrangement of the farmer through WUA and related stakeholders.

WG-IOA Minutes Item 7: International Young Professionals Training Program, 22-25 April 2019, Gyeonggi Province, Republic of Korea – Response from YPs on questionnaire

15. The Chair informed that International Young Professionals Training Program (YP-TP) on "Climate Resilient Smart Irrigation Systems" held in Korea in April 2019 was organized by KCID in collaboration with the Chinese National Committee (CNCID) and ICID. WG suggested to digest and try to utilize the outcomes of the Program YP-TP for the WG activities.

WG-IOA Minutes Item 8: Any other business

16. WG-IOA meeting in Sydney (Australia) in September 2020: For completion of mandate of WG-IOA in September 2021, a workshop is proposed during Sydney meeting in September 2020 to incorporate the overall mandate of institutional and organizational aspects of IOA. The theme of the workshop will be "Public-Private-Partnership (PPPs) in Irrigation and Drainage Operation and Maintenance toward sustainable Irrigated Agricultural water management". The sub themes will be: (a) PPPs Approaches and Conditions for successful IOA toward sustainable O&M of Irrigation and Drainage; (b) PPPs approaches and conditions of IOA for successful irrigation/ drainage management transfers arrangement; (c) Legislation and institutional requirements for transferring of responsibilities and/or ownership of irrigation and drainage systems to water users associations through PPPs Approach.

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Annex [Appendix XXVII, Item 2]

ROAD MAP TO ICID VISION 2030 – ACTIVITIES OF WORK BODIES

Goals/ Strategies	Activities	Outcomes/ Outputs	Milestone for Year 2017	Milestone for Year 2018	Milestone for Year 2019	Milestone for Year 2020	Milestone for Year 2021
Goal A: Enable higher crop productivity with less water and energy							
A4. Strategy: Promoting institutional reforms	4.1 Introduce suitable institutional setup	Guidelines		Prepare the first draft report		Finalise the draft report & publication	
A6. Strategy: Improving performance of irrigation systems	6.3 Facilitate policy analysis for improved water governance with a focus on agricultural water management and sustainable rural development.	Technical Paper					
	6.4 Develop generalized legal regulations (guidelines) and implementing changes in the public and private sectors of agriculture and water economies of the countries	Guidelines					
	6.5 Implementing changes in the public and private sectors of agriculture and water economies	Position paper					
A8. Strategy: Encouraging Participatory Management of Irrigation Systems							
Goal C: Facilitate exchange of information, knowledge and technology							
C1. Strategy: Providing knowledge sharing platform for AM professionals	1.7 Organize Workshop, Seminar and Symposium	Compilation of proceedings	Symposium	Symposium	Symposium	Symposium	
C4. Strategy: Compile, collate and share knowledge and experiences	4.10 Condensed overview of existing key books, manuals, guidelines and other relevant publications on the institutional, organizational aspects of	Technical report		Release the first report		Release the second report	Release of final report

Goals/ Strategies	Activities	Outcomes/ Outputs	Milestone for Year 2017	Milestone for Year 2018	Milestone for Year 2019	Milestone for Year 2020	Milestone for Year 2021
	irrigation management						
	4.11 Overview paper on the state of the art on the IOA of I&D in Irrigation and Drainage (IRD)	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
	4.12 Exchange of information and sharing knowledge through case studies on institutional and organizational	Case studies	Exchange of information		Exchange of information		Exchange of information

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

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MINUTES OF THE 5TH MEETING OF
WORKING GROUP ON MODERNIZATION AND REVITALIZATION OF IRRIGATION SCHEMES (WG-M&R)

05 September 2019, 14:00-16:00 hours (Session I)
05 September 2019,16:15-18:15 hours (Session II)
Bali, Indonesia

Strategy Theme: Schemes

Presented by the Chair

Year of Establishment: 2015 **Completion of the Mandate: 2021**

Scope of work: To investigate, analyse, disseminate information on new developments and to formulate recommendations with respect to: Planning and preparation for modernization and revitalization of irrigation schemes; Interaction between modernization, revitalization and required operation and maintenance; Cost sharing for modernization, revitalization and required operation and maintenance; Institutional and organizational framework required for modernization, revitalization and operation and maintenance; Methods and techniques of lining of conveyance and distribution canals; Canal control systems with respect to their automation, using internet, mobile communication and remote monitoring in canal operation; Modification to improve communication, operational capacities and flexibility in operation and maintenance of systems; Standardization and codes of practice in irrigation systems.

Members Present: (1) VPH Ian Makin, Chair (UK); (2) Dr. Dong Bin, Vice Chair (China); (3) Engr. Muhammad Sani Bala, Secretary (Nigeria); (4) Ir. Eko Subekti (Indonesia); (5) Dr. Yohei Sato (Japan); (6) Dr. Kwang-Sik Yoon (Korea, Rep. of); (7) Ms. Mona Liza Delos Reyes (Philippines); (8) Engr. Reyne B. Ugay (Philippines); (9) Dr. Chih-Hung Tan (Chinese Taipei).

Observers: (1) VPH Shinsuke Ota (Japan); (2) Robyn Johnson (Australia); (3) Li Yinong (China); (4) Murtinin Grum (Indonesia); (5) Aminmullah Syar (Indonesia); (6) Sigt S. Ali (Indonesia); (7) Rizal Siregar (Indonesia); (8) Abin Lee (Korea, Rep. of); (9) Garantigui Traore (Mali); (10) Remco Dost (Netherlands); (11) Iliya M. London (Nigeria); (12) Ali Mohammed Abdulkarim (Nigeria); (13) Ipinalaye Olaiyu (Nigeria); (14) Mamman Modu (Nigeria); (15) Abegte Ibrahim A. (Nigeria); (16) Engr. D.B. Madu (Nigeria); (17) Ally Ailyne C. Agtuca-Sevoa (Philippines); (18) Portia S. Angulo (Philippines); (19) Imedlda G. Timbang (Philippines); (20) Kun-Hsien, Lin (Chinese Taipei); (21) Tseng-Ching, Tang (Chinese Taipei); (22) Ching Yuang (Chinese Taipei); (23) Lin Feng Sheng (Chinese Taipei); (24) Kang-Han Fan (Chinese Taipei); (25) Lin Chun Chi (Chinese Taipei); (26) Chiang Shih Chi (Chinese Taipei); (27) Yuan Tau An (Chinese Taipei); (28) Chia Yi Chien (Chinese Taipei); (29) Ksieh Kun-Cheng (Chinese Taipei).

Webpage: http://www.icid.org/wg_mnr.html

WG-M&R Minutes Item 1: Action taken report by Chair

1. At the onset, the Chair welcomed all the members and briefed on the latest status on the action point emerging from the minutes of the previous meeting of the WG held at Saskatoon, Canada.

2. Mr. Vyacheslav Rozhon (Ukraine), Mr. Bir Singh Dhami (Nepal), Ms. Meral Çiçek (Turkey) and Mr. Firas Hussain Ali (Iraq) neither attended the meeting nor contributed to the activities of the group for more than one year so the group suggested to invite new nominations from the respective NCs. The group noted that Mr. Mehrzad Ehsani is also a Chair of WG-WATS and hence he is unable to attend the meeting at the same time. Mr. Ehsani proposes a new candidate for the membership for which WG welcomes. The group noted that Dr. Brian T Wahlin (USA) has been contributing to the activities of WG through correspondence.

3. Dr. Mona Liza Delos Reyes (Philippines) participated in the meeting and introduced her research interests and the group accepted his membership while Eng. Reyne B. Ugay (Philippines) was not present but was represented by Portia S. Angulo (Philippines). After discussion, the group accepted membership of Eng. Reyne B. Ugay subject to his participation in the WG activities by correspondence or presence at the next meeting in Sydney in 2020.

4. In addition, Engr. Sani Bala (Nigeria) requested the WG to accept the participation of an additional five (5) representatives from Nigeria as members, namely (i) Iliya M London; (ii) Ali Mohammed Abdulkarim; (iii) Ipinlaye Olaiyu; (iv) Alammon Mody; (v) Ibrahim A. Abegte. Chair welcomed the strong interest from the Nigeria National Committee and informed that each NC may nominate 4 members of the WG, provided at least one of the additional members is a young professional and the others are welcome to participate as Permanent Observers (refer *ICID Bylaws 3.5*). The group requested ICID Central Office to follow-up with the Nigerian NC to confirm the names of the members and Permanent Observers. Membership status is given in **Annex 4 (page 27)**.

5. Chair reported on the preparation of the International Workshop (*refer Item 2 below*) and thanked members of the WG for their contributions to the review and finalization processes.

6. A representative of a commercial organization asked how innovative companies could promote new ideas through ICID. He noted that without policy buy-in in countries, adoption of innovation is difficult and asked whether ICID could assist in promoting new innovations and technologies. Chair encouraged them to participate fully in ICID conferences and working groups which seek to do exactly that. The WG noted that partnership with local entities was more likely to be successful compared to stand-alone international organizations.

7. After discussion with Chair WG-IDM (Mary-Jean Gabriel – South Africa), it was proposed that the WG-M&R and WG-IDM either schedule at different times or organize joint sessions at future meetings. Members of WG-IDM joined the WG-M&R for the closing session wherein it was agreed to work together on further terms for the MTD.

WG-M&R Minutes Item 2: Road Map to ICID Vision 2030 – Status of activities on modernization and revitalization

8. WG discussed and considered the following actions agreed in relation to the Road Map (refer **Annex**), namely:

A1. Strategy: Modernizing irrigation systems

1.4 Preparation and presentation of Case studies

9. A further 9 case studies have been prepared and presented at the International Workshop on 1 September 2019. An additional case study from Indonesia was presented during the WG-M&R on 5 September, making over 20 case studies available. Further case studies on selected aspects of modernization will be prepared for inclusion in publication for Sydney (*refer Item 1.5 below*).

1.5 Prepare an overview paper on State of the Art on Modernization of Irrigation Systems

10. Available case studies will be summarized and collated as a state-of-the-art paper which will form the basis for preparing guideline on modernization (*refer item 1.6 below*). A revision to the proposed definition of modernization will be developed for consideration by the WG-M&R to increases the focus on services to farmers but retaining the overall philosophy developed in the working definition of modernization finalized by the WG earlier.

1.6 Develop Guidelines for Modernization of Irrigation systems

11. It was proposed that based on case studies presented – a generic guideline on processes will be developed.

A2. Strategy: Improving O&M of Irrigation Systems

2.1 Advocacy paper to draw attention to the needs of adequate resources for O&M

12. The group noted that it was deleted in Saskatoon. It was proposed that it will be addressed through the proposed survey on O&M norms and subsequent paper.

2.2 Develop norms of O&M of Irrigation systems

13. After discussion, it was proposed to postpone until current publications completed. Planning for publication in 2020 / 2021.

B1. Strategy: Supporting development of appropriate policies

1.9 Prepare position Paper on Key Issues on Modernization of Irrigation Schemes

14. The group noted that it was proposed for WWF 8 but could not be done. Due to other activities in hand, it was proposed to postpone till current program of works are completed.

C1. Strategy: Providing knowledge sharing platform for AWM professionals

1.5 Organize Workshops, Seminar and Symposium on modernization

15. The group organized the International Workshop during WIF3 at Bali on 1 September 2019 wherein 9 case studies presented and discussed. More than 70 professionals participated in the workshop.

F4. Strategy: Developing and sharing AWM knowledge

4.4 Condensed overview of Key books, manuals and Guidelines

16. After discussion, the group proposed to consider it after Sydney meetings.

WG-M&R Minutes Item 2. 1: Publication of the WG

17. Based on case studies presented in Bali and previous meetings of the WG-M&R, a generic guideline on processes will be developed for publication at the Sydney Congress in 2020. It is proposed to include the state-of-the-art review as the introduction to the publication, with case studies illustrating experience and future directions.

18. It was proposed that work during 2019/20 will include preparation of a questionnaire to obtain updated information on O&M norms from member countries as the basis for a review paper for publication by ICID or in the Journal. Chair requested members to contribute in the development of the questionnaire with WebEx conference planned in early 2020 to confirm the questions before circulation to the NCs. The paper will be planned for 2021 publication.

WG-M&R Minutes Item 3: Exchange of information, knowledge & networking

19. Chair encouraged members to access the website of the WG http://wg-mr.icidonline.org/ and provide the interesting articles/ papers/ presentations/ documents related to the activities of the group for uploading on the website. The presentation materials as well as the photos in the previous WG meetings were uploaded.

WG-M&R Minutes Item 4: Updating Multilingual Technical Dictionary (MTD)

20. The WG-M&R submitted a list of 477 terms on canal automation to TF-MTD for consideration for inclusion in English language version. The WG suggested that Central Office to consider converting MTD into multilingual database where nominated editors form NC can provide translations on-line and users can obtain multilingual information.

WG-M&R Minutes Item 5: International Workshops on Modernizing Irrigation Services for Water, Food, and Nutrition Security, September 2019, Bali

21. International Workshop on Modernizing Irrigation Services for Water, Food and Nutrition Security was organized during Third World Irrigation Forum (WIF3) on 1 September 2019 at Bali wherein 9 case studies were presented and discussed. The workshop was attended by more than 70 professionals. The workshop was well attended and the case studies, including updates to previous presentations, generated lively discussions.

22. Proposals for specific case studies on low- and high-pressure pipelines for tertiary system distribution networks will be invited for presentation in Sydney and inclusion in the publication on guidelines.

WG-M&R Minutes Item 6: International Young Professionals Training Program, 22-25 April 2019, Gyeonggi Province, Republic of Korea – Response from YPs on questionnaire

23. Dr. Dong Bin (China) reported his participation as a resource person at the workshop, noting the high value to the participants and thanked Korean National Committee (KCID) and Korean Rural Corporation (KRC) for organization of the event.

24. Dr Petra Schmitter (IWMI observer) reported on the YP E-forum that she had facilitated on solar powered irrigation and technology.

25. Dr Schmitter suggested ICID to consider requesting exhibiting companies at ICID events to offer internships for ICID YPs to gain additional experience in their companies.

WG-M&R Minutes Item 7: Any other business

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Annex [Appendix XXVIII, Item 2]

ROAD MAP TO ICID VISION 2030 – ACTIVITIES OF WORK BODIES

Goals/ Strategies	Activities	Outcomes / Outputs	Milestone for Year 2017	Milestone for Year 2018	Milestone for Year 2019	Milestone for Year 2020	Milestone for Year 2021
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	
	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		
	1.6 Develop Guidelines for Modernization of Irrigation systems	Guidelines (This to be reviewed and possibly revised in Mexico 2017)			Release Guidelines in WIF3	Release Guidelines	
A2. Strategy: Improving O&M of Irrigation Systems	2.1 Advocacy paper to draw attention to the needs of adequate resources for O&M	Advocacy paper					
	2.2 Develop norms of O&M of Irrigation systems	Technical Report					
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				Release in Sydney in 2020	
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	Conference Session in Sydney in 2020	
Goal F: Facilitate capacity development							
F4. Strategy: Developing and sharing AWM knowledge	4.4 Condensed overview of Key books, manuals and Guidelines	Book Overview					

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

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MINUTES OF THE 1ST MEETING OF THE WORKING GROUP ON RAIN WATER HARVESTING (WG-RWH)

04 September 2019, 11:15-13:15 hours (Session I), and 14:00-16:00 hours (Session II)
Bali, Indonesia

Strategy Theme: Scheme

Presented by the Chairman

Year of Establishment: 2018 **Completion of the Mandate: 2024**

Mandate: (a) Promote rainwater harvesting as a natural, local, and efficient source of water in accordance with the key principles of Rainwater Harvesting; (b) Conduct research and provide advice from a range of disciplines: rainwater harvesting, irrigation and agricultural practices including water management, land use planning, policy environments, and stormwater management; (c) Provide Rainwater Harvesting Codes of Practice suitable for urban and agricultural water use.

Members Present: (1) Mr. Geoff Harvey (Australia); (2) Mr. Michael Smit (Australia); (3) Dr. A.K. Randev (India); (4) Ms. Mary Jean Gabriel (South Africa).

Observers: (1) PH Peter Lee (UK); (2) Engr. Zabrhullah Frotan (Afghanistan); (3) Dr. Alok Sikka, IWMI (India); (4) Dr. Vinod Tiwari (India); (5) Dr. L.B. Roy (India); (6) Dr. Shivaji T. Sangle (India).

Webpage: http://www.icid.org/wg_rwh.html

WG-RWH Minutes Item 1: Introduction of the new WG by the Chair

1. At the onset, Chair Geoff Harvey introduced the working group and members also introduced themselves. Mr. Geoff Harvey discussed the Concept note and mandate of the working group.

2. Chair of the WG reviewed the membership of the group which includes two new nominations viz. Dr. Rattan Chand Jain (India) and Prof. (Ms.) Elena Bresci (Italy). Due to insufficient standing members during the meeting, the group suggested that as they were neither present nor represented they were accepted as 'Provisional Member' until the next meeting. During the meeting, Dr. Vinod Tiwari (India) and Dr. Alok Sikka (IWMI-India) have shown their willingness to join the group, the group welcomed them and requested to send the nomination to ICID Central Office. Membership status is given in **Annex 4 (page 27)**.

WG-RWH Minutes Item 2: Work plan of the WG and Road Map to ICID Vision 2030 – activities on rain water harvesting

3. The group discussed the work plan of the WG and Road Map to ICID Vision 2030 especially the activities on rain water harvesting and updated it (*refer **Annex***). Chair requested members to share publication of the WG in forms of guidelines, regulations, standards, and other key codes which focus on goal 2, 3, and 4 that needs to be collected and circulated on website. It was proposed to organize workshop and field trip during ICID Congress 2020 for innovation and commercialization.

WG-RWH Minutes Item 3: Dissemination of activities of WG – website of the group

4. The group discussed about the dissemination of activities of WG and proposed to circulate minutes, action plans, and drafts of position statement by uploading the same on the website.

WG-RWH Minutes Item 4: Any other business

5. At the end of the meeting, the group discussed and proposed some of the other important things:

(a) WG should also work with the Working Group on Water and Crop since they discuss on the practice of harvested rainwater utilisation

(b) Proposed to organize Webex meeting in November 2019

(c) Preparation of workshop and fieldtrip in ICID Congress 2020 in Sydney.

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Annex [Appendix XXIX, Item 2]

ROAD MAP TO ICID VISION 2030 – ACTIVITIES OF WORK BODIES

Goals/ Strategies	Activities	Outcomes/ Outputs	Milestone for Year 2019	Milestone for Year 2020	Milestone for Year 2021	Milestone for Year 2022	Milestone for Year 2023
Goal 1: Enable higher crop productivity with less water and energy	WG Activity 1.1						
Goal 2: Be a catalyst for change in policies and practices	WG Activity 2.1		Inaugural meeting work plan	Position standard	Innovation celebration		
Goal 3: Facilitate exchange of information, knowledge and technology	3.1 Organize international workshop, seminar or symposium	First workshop	**Work plan**	Collect codes and legislation	Videos on best practices		
Goal 4: Enable cross disciplinary and inter-sectoral engagement	WG Activity 4.1		Work plan	Work with WG-WATER & CROPS	Training modules		
Goal 5: Encourage research and support development of tools to extend innovation into field practices	WG Activity 5.1						
Goal 6: Facilitate capacity development	WG Activity 6.1						

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MINUTES OF THE 6TH MEETING OF THE WORKING GROUP ON SUSTAINABLE DRAINAGE (WG-SDRG)

05 September 2019, 14:00-16:00 hours (Session I)
05 September 2019, 16:15-18:15 hours (Session II)
Bali, Indonesia

Strategy Theme: Scheme

Presented by the Chair

Year of Establishment: 2013 **Completion of the Mandate: 2019**

Mandate: (a) To promote drainage as part of integrated water resources management; and (b) To promote sustainable approaches for drainage and related projects through a balanced integration of (i) environmental, (ii) economic, and (iii) social and cultural aspects. The WG will work on – (a) Soil management and (integrated) water (resources) management; (b) Traditional and wise drainage management including (i) dry drainage and bio drainage, (ii) arid and semi-arid zones v/s rain fed zones, and (iii) controlled drainage and regulated drainage; (c) Operation and maintenance; (d) Promotion of multi-stakeholders approaches; (e) Reuse and multiple uses; (f) Promotion of risk assessment under global change, and (g) Assessment of drainage needs.

Members Present: (1) Mr. Bernard Vincent, Chairman (France); (2) Ms. Wang Shaoli (China); (3) Mr. Ardavan Azari (Iran); (4) Dr. (Ms.) Naoko Koshiyama (Japan); (5) Engr. Mohd Anuar Musardar bin Yusoff (Malaysia); (6) VPH Irena Bondarik represented Dr. Yurii Yanko (Russia); (7) Prof. Aidan Senzanje (South Africa).

Observers: (1) PH Chandra Madramootoo (Canada); (2) VPH Dr. Mohamed Wahba (Egypt); (3) Engr. Tanatuwa Damian Ngamwa (Nigeria); (4) Hao-Che Ho (Chinese Taipei); (5) Jong-Hsing Tsai (Chinese Taipei); (6) Arthon Suttigarn (Thailand).

WG-SDRG Minutes Item 1: Action taken report by the Chair

1. At the onset, the Chair Bernard Vincent welcomed all the members and briefed on the latest status on the action point emerging from the minutes of the previous meeting of the WG held at Saskatoon, Canada. Chair encouraged members to make full use of web-ex platform for virtual meeting to ensure regular contribution and initiate follow-up actions emerging from the minutes of the previous WG meeting.

2. The group reviewed the nomination of Dr. Ratan Chand Jain received from the Indian National Committee on Surface Water (INCSW) for the membership of the WG however, as he was neither present nor represented, he was accepted as 'Provisional Member' until the next meeting. The group also reviewed the nomination of Dr. Natsuki Yoshikawa (Japan) and accepted him as 'Provisional Member' pending his nomination to be recommended by Japanese National Committee to ICID Central Office.

3. Mr. Chen Hung-Kwai (Chinese Taipei), and Dr. (Ms.) Bilge Omar (Turkey) have not been contributing to the activities of the group during last two years so the group recommended to discontinue their membership and invite new nominations from their National Committees as well as other NCs. Membership status is given in **Annex 4** (page 27).

4. Chair Bernard Vincent briefed the group about the National Drainage Workshop held in France with the aim to discuss and sharing knowledge on various aspects related to agricultural drainage wherein 200 participants attended the event. During the event, 11 papers were presented, two round tables were organized and one special issue was brought out. Chair further informed about the representation of the French branch and promotion of the WG in the "French water partnership" through activities in the group SFN and water biodiversity. Chair highlighted the need of uploading small interviews, videos etc. on the WG's website for wider dissemination.

WG-SDRG Minutes Item 2: Road Map to ICID Vision 2030 – Status of activities on sustainable drainage

5. The WG reviewed the Road Map to ICID Vision 2030 as part of activities on sustainable drainage and updated it (refer **Annex**). While discussing roadmap WG Chair and members suggested to promote (a) drainage as part of integrated water resources management, and (b) adopt sustainable approaches for drainage and related projects through a balanced integration of (i) environmental, (ii) economic, and (iii) social and cultural aspects. After deliberation the WG agreed to work on the following:

(a) Soil management and (integrated) water (resources) management

(b) Traditional and wise drainage management including (i) dry drainage and bio drainage, (ii) arid and semi-arid zones v/s rain fed zones, and (iii) controlled drainage and regulated drainage;

(c) Operation and maintenance;

(d) Promotion of multi-stakeholders approaches;

(e) Reuse and multiple uses;

(f) Promotion of risk assessment under global change,

(g) Assessment of drainage needs.

WG-SDRG Minutes Item 2.1: Publication of the WG

6. The group noted that Mr. Ardavan Azari (Iran) has prepared a design of pilot complex of bio saline agriculture activities for a region located in southern coastal area of Iran. Mr. Azari made a presentation on *"Bio-saline Agriculture Pilot complex in southern coastal area in Iran"*.

7. Dr. Momon Sodik Imanudin (Indonesia) shared his power point presentation titled "DRAINMOD model adaptation for developing recommendations to maintain water table in the tertiary block of tidal lowland reclamations areas (A Case Study in Sugihan Kanan under Corn Cultivation)". Chair briefed the WG that so far, 1 paper was published on bio drainage (Gurbachan Singh) while on controlled drainage – 1 workshop was organized wherein 9 papers were received, and 3 presentations were made on wetlands. Further, Chair, encouraged members to make presentation on controlled drainage (The Netherlands, Finland) and dry drainage (China, Iran).

WG-SDRG Minutes Item 3: Updating database on 'Drained area in the world'

8. WG discussed and reviewed the updated database of drainage area which is available at http://www.icid.org/world-drained-area.pdf. Chair requested members to provide the latest information in respect of their countries to ICID Central Office every year regularly.

WG-SDRG Minutes Item 4: Updating Multilingual Technical Dictionary (MTD)

9. Due to paucity of time, updating Multilingual Technical Dictionary (MTD) was not discussed.

WG-SDRG Minutes Item 5: Dissemination of activities of WG

10. The group reviewed the website of the WG http://www.icid.org/wg_sdg.html and noted the updation of new membership list, agenda, minutes, events, etc. Chair requested members to provide articles/ papers/ presentations/ documents related to the activities of the group for the enrichment of the WG's website.

WG-SDRG Minutes Item 6: Organization of 14th International Drainage Workshop, 2020

11. Chair Bernard Vincent briefed the WG that the National Committee of Georgia had shown their interest for organizing the 14th IDW but status cannot be ascertained as no representative from the National Committee of Georgia could attend this meeting. However, representative from Russian National Committee (RuCID) explained that the Georgian proposal is on hold due to local re-organisation. Chair informed that he is aware following two proposals in respect of 14th IDW, which are still in discussion stage viz. (a) combining14th IDW with IDS organised by ASABE and CIGR (joint proposal of Canada and USA) in 2021 to avoid the risk of over competition since the drainage community is not able to feed both events at a short interval of time; (b) China's IWHR and Wuhan University's National State Key Laboratory considering for organising 14th IDW as they have the huge capacity of to organize such event.

WG-SDRG Minutes Item 7: To revisit the mandate and include urban drainage – new item

12. The group noted that since urban flooding and its drainage is one of the important aspects of drainage which has direct bearing on lives of citizens in urban areas, environment, water quality and to some extent on urban agriculture also so it has been suggested and felt necessary that IDW may also deliberate on the topic of urban drainage. Accordingly, it is proposed to revisit the mandate of International Drainage Workshop (IDW) and explore possibility of including urban drainage also as part of IDW.

13. Seeing the importance of urban drainage in the light of flooding of urban areas in many countries in recent times, WG group agreed to discuss the issue of inclusion of urban drainage in the mandate of IDW at the meeting and provide the recommendation to PCTA.

WG-SDRG Minutes Item 8: International Young Professionals Training Program, 22-25 April 2019, Gyeonggi Province, Republic of Korea – Response from YPs on questionnaire

14. The Chair informed that International Young Professionals Training Program (YP-TP) on "Climate Resilient Smart Irrigation Systems" held in Korea in April 2019 was organized by KCID in collaboration with the Chinese National Committee (CNCID) and ICID. WG suggested to review and try to utilize the outcomes of the Program YP-TP for the WG activities. A representative from South Africa informed that the delegates from South Africa attended the workshop and training program. From the questionnaire, the group noted one good idea to design controlled drainage so that adaptation to climate change will be easy.

WG-SDRG Minutes Item 9: Closure report and Scoping Document for the new Working Group

15. During the meeting, the group discussed and noted that drainage systems are required not only in irrigated areas but also in rainfed areas of humid and sub-humid countries. To address the drainage issues, the WG has been engaged in promoting drainage technology and management measures for sustainable agricultural production through a balanced integration of environmental, economic, and socio-cultural aspects.

16. The group noted that the WG completed its mandate, however, seeing the importance of drainage, the WG requested the PCTA to extend the completion of the mandate of the WG to one more year to enable the WG to set up a task team to prepare the scoping document for the establishment of new WG and based on recommendation of PCTA, IEC approved extension of WG-SDRG by one year.

WG-SDRG Minutes Item 10: Any other business

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Annex [Appendix XXX, Item 2]

ROAD MAP TO ICID VISION 2030 – ACTIVITIES OF WORK BODIES

Goals/ Strategies	Activities	Outcomes / Outputs	Milestone for Year 2017	Milestone for Year 2018	Milestone for Year 2019	Milestone for Year 2020	Milestone for Year 2021
Goal C: Facilitate exchange of information, knowledge and technology							
C4. Strategy: Compile, collate and share knowledge and experiences	4.23 Collection and compilation of drainage irrigation data	Database	Updating database	Updating database	Updating database		
Goal E: Encourage Research and Support Development of Tools to Extend Innovation into Field Practices							
E5. Strategy: Compilation of Global Data Sets on Irrigation and Drainage	5.3 Datasets for Drainage Area						

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

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MINUTES OF THE 4TH MEETING OF THE
WORKING GROUP ON WATER SAVING IN IRRIGATED AREAS (WG-WATS)

05 September 2019, 14:00-16:00 hours (Session I)
05 September 2019, 16:15-18:15 hours (Session II)
Bali, Indonesia

Strategy Theme: Schemes

Presented by the Chair

Year of Establishment: 2015 **Completion of the Mandate: 2021**

Scope: (a) water accounting and irrigation auditing (and other ancillary uses); (b) irrigation water measuring devices; (c) assessment of water loss in various components of irrigation systems; (d) various methods and techniques used for water saving in irrigation; (e) policies and strategies for irrigation water saving; (f) charging for Irrigation Services; (g) success stories and best management practices in water saving; (h) tools and processes applied in irrigation water saving; (i) outreach of water saving technologies; and (j) WatSave Awards.

Members Present: (1) Mr. Mehrzad Ehsani, Chairman (Iran); (2) Mr. Mortaza Yazdekhasti, Secretary (Iran); (3) Dr. P. Soman – Direct Member, JISL (India); (4) Prof. (Ms.) Kyung-Sook Choi (Korea, Rep.of); (5) Dr. Ray-Shyan Wu (Chinese Taipei).

Observers: (1) Sally Quigley (Australia); (2) Tony Quigley (Australia); (3) James Winter (Australia); (4) Mr. Momir Vranes (Asutralia); (5) Ms. Jianxin Mu (China); (6) Ikuo Yoshinaga (Japan); (7) Fumi Okura (Japan); (8) Masaomi Kimura (Japan); (9) Si Hoon Kim (Korea, Rep.of); (10) Song Hee Park (Korea, Rep.of).

Webpage: https://www.icid.org/wg_wats2015.html

WG-WATS Minutes Item 1: Action taken report by Chair

1. At the onset, the Chair welcomed all the members and briefed on the latest status on the action point emerging from the minutes of the previous meeting of the WG held at Saskatoon, Canada. Chair encouraged WG members to make full use of WebEx platform for virtual meeting to ensure regular contribution as well as discuss and initiate follow-up actions emerging from the minutes of the previous WG meeting and review the progress of the action points.

2. The WG reviewed the membership of the group which includes one new nomination viz. Isomiddin Akramov (Uzbekistan), as the nominee was neither present nor represented, the nomination was accepted as 'Provisional Member' until the next meeting. In October 2019, the Irrigation Australia Limited (IAL) has nominated Ir. Felipe Dantas (Australia) for the membership of the WG. In consultation with the Chair, the nomination of Ir. Felipe Dantas was accepted as 'Provisional Member' until the next meeting.

3. The member from Sudan (Dr. Hassan Abolbasher Ali) and Iraq (Mr. Mohammed Alaa Dheyaa – Young Professional) have not contributed to the activities of the WG during last two years so as per ICID By-laws 3.5, it was recommended to discontinue their membership with the recommendation to invite new nomination from the National Committees. Membership status is given in **Annex 4 (page 27)**.

WG-WATS Minutes Item 2: Road Map to ICID Vision 2030 - Status of activities on water saving in irrigated areas

4. The WG re-reviewed the Action Plan on the Road Map to ICID Vision 2030 that was modified in the WG meeting held in Saskatoon in 2018 (refer **Annex**).

WG-WATS Minutes Item 2.1: Publication of the WG

5. During Bali meeting, the group discussed the publication of the WG as per the Vision 2030:

(a) Best practices and successful story on water saving: ICID Central Office disseminated the book titled "Water Saving in Irrigated Agriculture in Egypt – case studies and lessons learned" jointly authored by Mohamad Hassan Amer, Seyed Ahmed Abd El-Hafez and Mohamed Bakr Abdel Ghani by sharing and uploading it on ICID website. Due to the absence of the authors of the book, the different chapters of book were presented by the Secretary of the WG.

(b) **Policy and legal approaches to water saving:** The group noted that the questionnaire was circulated and finalized subsequently incorporating comments received from the members. WG suggested that Ms. Mu Jianxin (China) to submit the final questionnaire to ICID Central Office for circulation among NCs to collect information and data. The questionnaire has been finalized from the WG point of view.

(c) **Water Charging Policies:** The Chair briefed the group and thanked all the NCs who have responded to the draft framework however, the group felt that response is not enough (*at least information from 15 countries is still needed*) to prepare the final report. The group discussed about the preparation of a technical book on water charging polices and mechanism to analyze the effect of water charges on water saving in agriculture. During the meeting, Chair proposed Ms Mu. Jianxin (China) to prepare a brief write-up and coordinate for organizing an internal WG workshop during next ICID meeting in Sydney 2020.

(d) **State of the art on water saving:** WG decided to prepare an overview paper on the above subject highlighting the most recent research and newest ideas and submit it for publishing in ICID Journal on Irrigation and Drainage. Dr. Joe Stevens and VPH Dr. Gerhard Backeberg finalized the draft framework of the paper for submitting it for publishing in the Journal. In May 2019, Dr Stevens informed that due to poor response from the members on the case studies, Dr. Gerhard and Stevens will draft a paper based on the South African experience and would table the final paper on South African case study.

(e) **Condensed overview of existing key books, manuals, guidelines and other relevant publications on water saving**: Mr. Mortaza briefed and updated the group on the item which was pending for more than a year.

WG-WATS Minutes Item 3: Presentation by the WatSave Award winner(s)

6. During the meeting, the Chair briefed Ms. Chris Delphin from Irrigation Australia's Committee on Irrigation and Drainage (IACID) had informed that Mr. Tony Quigley and Mr. James Winter, WatSave winners 2019 from Australia will make presentation on the subject Trangie-Nevertire. Accordingly, in August 2019, ICID Central Office followed-up with all the winners of the WatSave Awards 2019 to participate and make a presentation during WG meeting. In response, Dr. Fuqiang Tian, winner of WatSave Technology Award 2019 participated and made a presentation during WG meeting at Bali.

WG-WATS Minutes Item 4: Dissemination of activities of WG – Website of the group

7. The group noted that the website of the WG <http://wg-wats.icidonline.org/> is fully functional and updated with the new membership list, agenda, minutes and other related articles, documents, reports etc. The WG members were requested to send and update the CVs for the website and provide the interesting articles/ papers/ presentations/ documents relate

8. d to the activities of the group for uploading on the website. The presentation materials as well as the photos in the previous WG meetings were also uploaded.

WG-WATS Minutes Item 5: Updating Multilingual Technical Dictionary (MTD)

9. The group discussed about the updating of MTD and noted that Prof (Ms.) Kyung–Sook Choi (Korea) is the nodal person for updating MTD terms related to the WG. During the meeting, Prof. (Ms.) Choi provided a brief updates to the members of the group.

WG-WATS Minutes Item 6: International Young Professionals Training Program, 22-25 April 2019, Gyeonggi Province, Republic of Korea – Response from YPs on questionnaire

10. The Chair informed that International Young Professionals Training Program (YP-TP) on "Climate Resilient Smart Irrigation Systems" held in Korea in April 2019 was organized by Korean National Committee (KCID) in collaboration with the Chinese National Committee (CNCID) and ICID. WG decided to review the information and will make efforts to utilize the outcomes of the Program YP-TP for the WG activities, especially the responses of the whole participant to five questions on water saving.

WG-WATS Minutes Item 7: Any other business

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Annex [Appendix XXXI, Item 2]

ROAD MAP TO ICID VISION 2030 – ACTIVITIES OF WORKBODIES

Goals/ Strategies	Activities	Outcomes/ Outputs	Milestone for Year 2017	Milestone for Year 2018	Milestone for Year 2019	Milestone for Year 2020	Milestone for Year 2021
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
	3.2 Best Practices and Successful Story on Water Saving	Documents	Workshop on Watsave awards	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	Breakdown the works in the WG	-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	Define responsibility in WG	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	Seminar/ Symposium on Water Saving	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)

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MINUTES OF THE 6TH MEETING OF THE SUB-COMMITTEE ON THEMES, TOPICS AND WORK PLANS OF FUTURE ICID EVENTS (SC-E-THEMES)

01 September 2019: 16.15-18.15 Hours
Bali, Indonesia

Terms of Reference (ToR): (i) To deliberate and recommend the Themes, sub-themes of World Irrigation Forums and Theme and Questions of future Congresses, (ii) To set out format and technical contents of the Congress and WIFs, (iii) To review the technical outputs and outcomes and suggest follow ups, (iv) To work out the structure of meetings related to IEC, particularly the WGs at the ICID's Annual Events, to make them more effective and (v) To draw Guidelines to make the WG meetings/sessions technically richer and beneficial to the stakeholders and industries by exploring the ways of combining the meetings of workbodies with areas of common interest or holding webinars, etc.

Members Present: (1) PH Dr. Gao Zhanyi, Chair (China, 2017); (2) VPH Dr. Ding Kunlun, Chair, PCTA (China, 2017); (3) Mr. Ali Reza Salamat, Member, PCTA (Iran, 2017); (4) VPH Mr. Ian W. Makin, Chair, WG-M&R (UK, 2017); (5) VP Waseem Nazir (Pakistan, 2017); (6) VP Dr. K. Yella Reddy, Member, ITAC-WIF3 (India, 2019) and (7) Er. Ashwin B. Pandya, Secretary General, ICID.

Observers: VPH Dr. Ragab Ragab (UK).

Sub-Committee Minutes Item 1: ATR on the Minutes of the 5th Meeting of the Sub-Committee

1. The minutes of the 5thmeeting of the Sub-Committee on Themes (SC-E-THEMES) was reviewed and discussed. Following the joint session of WGs under ST-ON-FARM held in Saskatoon last year, another joint session of WGs under ST-ON-FARM has been scheduled at Bali, Indonesia on 5 Sept. 2019. The Chair of SC-E-Themes expressed thanks to the Chairs of WGs under strategy Theme-On Farm for their efforts to hold a joint session at Bali.

2. An online/virtual meeting of the three Chairs of WGs--WATER & CROP, WG-SON-FARM, WG-NCWRI --was held on 31 May 2019 for discussing related issues.

Sub-Committee Minutes Item 2: To review the membership of the Sub-Committee

3. As per notification No.15 of 2017 dated 24 November 2017, the Sub-Committee shall consist of the members drawn from the following committees/WGs:

(a) Technical Experts – one each drawn from ITAC for immediate past and future WIF and Congresses, within the span of six years.
(b) Two Experts nominated by PCTA.
(c) Three Experts drawn from Technical Workbodies of ICID
(d) Chairperson of SC will be nominated from amongst the members, by the President in consultation with Secretary General.
(e) The membership will be for a maximum of six years and the nominee of ITAC of past Event will be a member for two years after the conclusion of that particular event.
(f) The membership shall not exceed more than 10 members.

4. The Sub-Committee reviewed the membership accordingly and recommended that in keeping with the above regulations, some numbers of the Committee should be changed. Technical experts from ITAC for WIF4 and 24rd ICID Congress should serve as the members of the SC. Since no application for the membership is received. SC suggests the Central Office to coordinate and settle the issue.

Sub-Committee Minutes Item 3: To work out the structure of meetings related to IEC, particularly the WGs at the ICID's Annual Events, to make them more effective

5. The Sub-Committee reviewed the following recommendations made at its last meeting in Saskatoon:

(a) Organize online WebEx meetings prior to the main physical meeting to take care of all routine matters such as attendance, membership issues, publications etc.
(b) Organize shortened separate physical (face to face) meetings of the WGs for 90 minutes each in place of earlier 180 minutes.

(c) Organize a series of internal workshops (90 minutes) on the specific items related to the mandate of the working group and combining the outcome of these workshops to produce WG Output/ Report/ Document as appropriate.

(d) Assign time bound specific tasks emerging from the mandate of the WG to the members for effective results.

(e) Restructure the Plenary Session of IEC to allow the chairs/WGs to disseminate the work of their WGs to all stakeholders.

6. The Committee noted that as per ICID Central Office e-mail dated 19 November 2018 to all Chairs/ Vice Chairs/ Secretaries of workbodies, it has been suggested to make full use of web-ex platform for virtual meeting so as to ensure regular contribution from the WG members as well as to discuss and to initiate follow-up actions emerging from the minutes of the previous WG meeting and to review the progress of the action points. In order to organize the WebEx Meetings, Webinars and e-Discussions, Chairs of the workbodies were requested to send the 'Expression of Interest' to initiate the process. During the year, it has been found that the numbers of virtual meetings have increased and a number of WGs are organizing internal workshops during their meetings at Bali, Indonesia.

7. The Sub-Committee expressed satisfaction with the progress made so far, and encouraged more virtual meetings could be organized by WGs under all strategy themes.

Sub-Committee Minutes Item 4: To draw Guidelines to make the WG meetings/sessions technically richer and beneficial to the stakeholders and industries by exploring the ways of combining the meetings of workbodies with areas of common interest or holding webinars, etc. – To finalize the recommendations

8. The Sub-Committee reviewed the following recommendations made previously:

(a) Organize combined meetings of the WGs for the duration of time saved from shortening the separate WG meetings, say of 180 minutes. This combined meeting could be in the shape of workshop/seminar/panel discussion on the common issues emerging from the mandate of the concerned WGs.

(b) While ICID has four strategy themes, i.e. Basin, Knowledge, On-farm and Schemes; 'On-farm' has only three WGs; namely, WG-PQW, WG-SON-FARM and WG-WATER & CROP; which can perhaps come together on trial basis to understand the actual working of the concept and the benefits thereof.

(c) Webinars (on-line) on the topics/areas of common interest of the concerned WGs could be held during the year.

(d) A lot of on-line coordination prior to the annual meetings among the Chairs/members would be a prerequisite for successful combined meetings (workshop/seminar/panel discussion) at the time of IEC.

(e) In order to take final decision on the combined meeting of the WGs for strategy theme 'On-Farm', WG Chair of respective WGs may also be invited to join next meeting.

9. As per the recommendation of SC, a joint session of three WGs, viz. WG-NCWRI, WG-SON-FARM, and WG-WATER & CROP was organized at Saskatoon, Canada on 15 August 2018, and another joint session will be held at Bali, Indonesia on 5 September 2019. In order to plan for a joint session and develop agenda for the meeting, a web-ex virtual meeting was organized on 31 May 2019. The minutes of the joint session was presented at the meeting by Strategy Theme Co-Leaders, ST-ON-FARM.

10. Based on the observation and outcome of the joint session last year at Saskatoon, Canada and the proposed agenda for the joint session at Bali. the Committee bas felt that it would be useful to organize the joint session pf WGs under each strategy theme with the highlight of holistic consideration of WGs' mandate and activities for achieving the objectives of the strategy theme, and to improve the performance of activities of WGs and identify the necessity to setup new WGs under the strategy theme.

Sub-Committee Minutes Item 5: To consider the Report of ITAC for WIF3, Bali, Indonesia, 2019

11. ITAC for WIF3 has finished its tasks for providing technical support to National Organizing Committee and International Steer Committee for the 3rd World Irrigation Forum. ITAC for WIF3 has contributed for identifying and improving the Theme and Sub themes, background papers for Sub-themes, structure of the Forum, support events and international workshops, call for papers, the role of invited institutions and partners, roundtable meetings, etc.

Sub-Committee Minutes Item 6: To consider the report of ITAC for 24th ICID Congress, Sydney, Australia, 2020

12. The detailed scope for the Questions and Sub-Questions for 24th ICID Congress which have been finalized in consultation with SC-E-THEMES and Host NC was reviewed. The theme and scope for the Symposium proposed by IACID were agreed by the meeting. The preparations for the 24th ICID Congress hosted by IACD have been progressed well and followed the schedule of ICID event. It was proposed and discussed that ICID CO and IACID should prepare and start early the "Call for Papers" and provide the links for submission of abstracts. IACID also proposed some registration discount for the participants from LDCs and for students to encourage young professionals' participation at the Congress. IACID would combine their domestic conference and exhibition with the ICID event in 2020. ITAC agreed that the exhibition during the 24th Congress should keep variety of exhibitors to participate in rather than limited to a special area. The CO and IACID will follow up to identify the General Reporters, Session Chairs and the Panel of Experts for the Congress.

Sub-Committee Minutes Item 7: Theme and Sub-Themes for 4th World Irrigation Forum, 2022

13. The Council vide its Resolution IEC-2/69 approved the following Theme and Sub-Themes for WIF4, following the recommendations of the Sub-Committee and PCTA at Saskatoon, Saskatchewan, Canada in August 2018.

Theme: Modernization of Irrigation Schemes

Sub-Theme 1: Policy and strategy for modernization of irrigation schemes
Sub-Theme 2: Technology for modernization of irrigation schemes
Sub-Theme 3: Investment for modernization of irrigation schemes
Sub-Theme 4: Performance Assessment of Irrigation Schemes

14. The venue of the 4th World Irrigation Forum will be decided at the 70th IEC meeting at Bali, Indonesia, as sufficient expression of interests have been received by the due date for submission of the same at ICID Central Office. The Sub-Committee will further develop detailed topics under the Sub Themes, in consultation with the host National Committee of WIF4.

Sub-Committee Minutes Item 8: Theme and Topics for 25th ICID Congress, 2023

15. As reported last year, the venue for the 25th ICID Congress is yet to be identified. However, based on the recommendations of Sub-Committee and later by PCTA, the Council approved the following Theme and Questions for 25th ICID Congress vide Resolution IEC-2/69.

Theme: Tackling Water Scarcity in Agriculture
Question 64: What alternative water resources could be tapped for irrigated agriculture?
Question 65: Which on-farm techniques can increase water productivity?

16. Sub-Committee will work together with the prospective host National Committee to modify the Theme and Questions, if required, according to the prevailing scenario.

Sub-Committee Minutes Item 9: Any Other Business

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