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AGENDA

Sixty Sixth Meeting of
International Executive Council (IEC)
&
Pre-Council Meetings of Workbodies
11 - 16 October 2015, Montpellier, France

**ICID Central Office
New Delhi**

August 2015

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Agenda for the Sixty Sixth Meeting of
INTERNATIONAL EXECUTIVE COUNCIL (IEC) OF ICID
Montpellier, France

Opening Plenary (First Session): 12 October 2015, 17:30 – 19:00 hours
 Second Session: 16 October 2015, 09:00 – 12:30 hours
 Third Session: 16 October 2015, 14:00 – 17:30 hours

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**AGENDA FOR THE 66TH MEETING OF
INTERNATIONAL EXECUTIVE COUNCIL (IEC) OF ICID
MONTPELLIER, FRANCE**

Opening Plenary (First Session): 12 October 2015, 17:30 – 19:00 hours

Second Session: 16 October 2015, 09:00 – 12:30 hours

Third Session: 16 October 2015, 14:00 – 17:30 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): 12 October 2015, 17:30 – 19:00 hours

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

1. President Dr. Saeed Nairizi will welcome the members and make his opening remarks. President will put the role of ICID within the international water community in perspective, highlight the main achievements of the Commission during the last year since the Gwangju IEC meeting, throw light on the issues that are before IEC for deliberations, and the need for a coherent approach towards the mission of ICID among its various stakeholders.

IEC Agenda Item 2: Procedural Aspects/Conduct of 66th IEC and Workbody Meetings – An introduction by Secretary General and Chairs of PCTA and PCSO

2. Secretary General will introduce the Agenda and draw the attention of the members to certain issues that need their special consideration during the session.

3. SG will give a brief about the procedural aspects regarding the conduct of IEC and Meetings of Workbodies, including Permanent Committees, in view of the shortening of time duration available for the meetings at Montpellier, which aim to minimize the administrative procedures and maximize the technical deliberations in order to save the time and cost on account of logistics for meetings.

SUPP: VPH Mr. Felix Reinders, Chair, PCTA and VP Dr. Huseyin Gundogdu, Chair, PCSO will make short presentations on the ways and means to make the meetings more efficient and fruitful.

IEC Agenda Item 3: Presentation by the National Committee: South Africa

4. The representative of National Committee of South Africa will make a presentation to showcase the activities of SANCID and share some important aspects regarding the irrigation scene in South Africa. The NC looks forward to feedback and suggestions from the members on conclusion of the NC presentation.

IEC Agenda Item 4: Presentation of Awards: Best Paper, WatSave & Heritage Irrigation Structures

IEC Agenda Item 4.1: Presentation of the Award for the Best Paper in the ICID Journal “Irrigation and Drainage”

5. Out of the papers published in the ICID Journal “Irrigation and Drainage” during the year 2014, the best paper will be selected and announced by Chair of EB-JOUR, PH Prof. Dr. Bart Schultz to be given Best Paper Award for 2015.

IEC Agenda Item 4.2: Presentation of WatSave Awards

6. The President, in consultation with the Management Board constituted a Panel of Judges (PoJs) comprising PH Dr. Gao Zhanyi (China), as the Chair and VP Laurie Tollefson (Canada), VP Bong Hoon Lee (South Korea), VP Mohamed Wahba (Egypt), and Prof. Charlotte de Fraiture (The Netherlands) as the members for evaluation of

the nominations received for WatSave Awards 2015. The Chair of the Panel will present his report to the Council introducing the works for which the awards have been recommended.

7. President will hand over the plaques and the representative of the host National Committee will present the cheque to the winners.

IEC Agenda Item 4.3: Recognition of Heritage Irrigation Structures (HIS)

8. The Chair of the Panel of Judges VP Dr Huseyin Gundogdu, PCSO Chairman, will present the report to the Council about the identified historical irrigation and drainage structures that will be accorded recognition as “Heritage Irrigation Structures” and later included in the ICID Register of HIS on Council’s approval. The representative of the NC whose HIS have been recognized and recommended to be included in the ICID Register of HIS will be handed over a “Plaque/Certificate” to this effect.

Second Session: 16 October 2015, 09:00 – 12:30 hours

IEC Agenda Item 5: Action Taken Report on the decisions of 65th IEC and the decisions taken by the Management Board (MB)

9. Actions on all the decisions by the 65th IEC were initiated/completed during the year. A brief report on the action taken on the decisions of the 65th IEC, other than the routine and administrative in nature, is presented in **Annex 1, page 5**. The Secretary General will also present before the Council, 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, which are listed in **Annex 2, page 7**, for ratification.

IEC Agenda Item 6: Report by the Secretary General

10. Secretary General Er. Avinash Tyagi will present the Annual Report 2014-15 bringing out physical and financial progress on activities undertaken during the period from April 2015 till date to the Council, including report on cooperation and collaboration with various international organizations.

IEC Agenda Item 7: Presentation on Strategy Theme “Basin”

11. Co-Theme Leaders of Strategy Theme “Basin”, VP Laurie Tollefson (Canada) and VP Mohamed Wahba (Egypt) will make a presentation on Strategy Theme “Basin” to analyze the work undertaken by the group of work bodies under respective strategy themes and identification of gaps, if any in fulfilling the objectives of ICID relating to that theme as well as exploring/using interconnections with other themes. The presentation also aims to help in undertaking a creative analysis of functioning of ICID workbodies, their success in achieving mandates and invigorating them within the framework of ICID mission and objectives. The presentation that will be made by the Co-Theme Leader of Strategy Theme ‘Basin’ is placed at **Annex 3, page 9**.

IEC Agenda Item 8: Reports by the Chairs of Permanent Committees

IEC Agenda Item 8.1: Permanent Finance Committee (PFC)

12. VP Laurie Tollefson, Chairman, PFC will present his report on the 36th meeting of the PFC held on 12 October 2015 at Montpellier, France from 1400-1730 hours. The agenda of PFC is given at **Appendix XXVIII, page 253**.

IEC Agenda Item 8.2: Permanent Committee on Strategy and Organization (PCSO)

13. VP Huseyin Gundogdu, Chairman, PCSO will present his report on the 26th meeting of PCSO held on 15 October 2015 from 0900-1230 hours. The agenda of the PCSO, and is given at **Appendix I, page 37**.

IEC Agenda Item 8.3: Permanent Committee for Technical Activities (PCTA)

14. VPH Felix Reinders, Chairman, PCTA will present his report on the 35th meeting of PCTA held on 15 October 2015 from 1400-1900 hours. The agenda of PCTA is given at **Appendix VIII, page 89**.

IEC Agenda Item 8.4: Discussions and Decisions on the Recommendations of the Permanent Committees

15. The Council will deliberate on the reports and recommendations of PFC, PCSO and PCTA together in totality and will take decisions through resolutions as appropriate. Draft Resolutions (DRs) 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 & PCTA, are placed as **DR-1/66 and DR-2/66** (pages 33 and 34).

Third Session: 16 October 2015, 14:00 – 17:30 hours

IEC Agenda Item 9: ICID Vision 2030

16. President Dr Saeed Nairizi will present the background under which the decision to undertake the exercise of developing an ICID Vision for the next 15 years and setting up of a Consultative Group for this purpose. The Consultative Group consists of VP Dr. Hüseyin Gündoğdu, Chair of PCSO as the convener and VPH Dr. Gerhard Backeberg, VPH Dr. Williem F. Vlotman, Mr. Ian Makin, Dr. Sylvain Peret, and Prof. Dr. Ir. Charlotte de Fraiture as its members with Secretary General as Member Secretary. VP Dr. Hüseyin Gündoğdu, Convener, Consultative Group will present the Draft Vision 2030 Document which is given at **Annex 4, page 13** for the consideration of the Council. The draft resolution reflecting the Council's decision is presented as **DR-3/66, page 35**.

SUPP: Comments received on the Draft Vision 2030 Document (Version 2.0) received up to 01 October 2015 are given in Annex 4A. Based on these comments, the document has been modified and Version 3.0 is attached as Annex 4B.

IEC Agenda Item 10: Scheme for Recognition of Heritage Irrigation Structures

17. At the 65th IEC meeting, the Council requested the Task Team constituted to work out the objectives, guidelines, and procedures to give recognition to historical irrigation structures, to revisit the 'Scheme for Recognition of Heritage Irrigation Structures' presented at the 65th Council meeting, in light of the detailed inputs to be provided by WG-HIST and OBC, particularly incorporating the non-functional irrigation structures, and present the revised Scheme at the 66th IEC meeting.

18. VPH Dr. Ragab Ragab, Chair of the TT will present the revised Scheme (**Annex 5, page 27**) at the meeting for Council's consideration and approval. A draft resolution reflecting the decision of the Council is presented as **DR-4/66, page 36**.

IEC Agenda Item 11: Status of Future ICID Conferences / Congresses / Forums

19. The IEC has so far approved the venues of the following future major ICID events:

- 67th IEC and 2nd World Irrigation Forum, Chiang Mai, Thailand, 6-12 November 2016
- 13th International Drainage Workshop, Ahvaz City, Khuzestan Province, Iran, March 2017
- 68th IEC and 23rd Congress on Irrigation and Drainage, Mexico City, Mexico, 8-14 October 2017

20. The proposal of Egyptian National Committee of ICID (ENCID) for holding the 4th African Regional Conference at Cairo, Egypt, on 26-28 April 2016 has been approved in principle by MB at its first Virtual Meeting (1/15) held on 28 February 2015 in pursuance of ICID By-law 3.9.2, subject to Council's approval at Montpellier.

21. Representatives of ENCID, THAICID, IRNCID and MXCID may apprise the Council of developments with regard to the organization of the events, if any, as per ICID By-laws 5.7.1.

22. ICID Central Office has circulated an e-mail dated 25 April 2015 along with a reminder on 27 May 2015 to all the National Committees of ICID inviting proposals for hosting the following future ICID events:

- 8th Asian Regional Conference (2017 onwards)
- 9th International Micro Irrigation Symposium (2017 onwards)
- 27th European Regional Conference (2018 onwards)
- 69th IEC (2018)
- 70th IEC & 3rd World Irrigation Forum (2019)

23. In response to the call for nominations, Canadian National Committee on Irrigation and Drainage (CANCID) has shown interest for hosting the 69th IEC at Saskatoon from 23 to 28 September 2018. “*Proforma to facilitate approval for hosting ICID events*” – *Form A, Part I* has been submitted by CANCID formally. Representative of CANCID will present their bid at the Council.

24. Indian National Committee on Surface Water (INCSW) has shown interest in hosting the 9th International Micro-Irrigation Symposium in Jan-February 2018 in Aurangabad, India. A proforma Form-A, Part I has been submitted by INCSW. Representative from Indian National Committee will present the bid. However, INCSW has requested for the renaming the event as International Micro-Irrigation Conference, instead of Symposium. The matter will be discussed at the PCSO and recommendation in this respect would be presented as part of the recommendation of the Chair PCSO report under Item 8.2.

IEC Agenda Item 12: Election of the Office-Bearers 2015-2018

25. As per Article 7.2.4 of the ICID Constitution, the 3-year term of Office (2012-2015) of the following three Vice Presidents will conclude at the end of the 66th IEC and its adjunct study tours –

| | |
|-------------------------|--------------------|
| Mr. Laurie C. Tollefson | Canada (2012-2015) |
| Dr. Hüseyin GÜNDOĞDU | Turkey (2012-2015) |
| Mr. François Brelle | France (2012-2015) |

26. In response to the Central Office’s circular inviting nominations for the positions of Vice President for the term 2015-2018, the following nominations were received in the Central Office.

| Sl. No. | Nominee | Country | Date of receipt in the Central Office | Validity |
|---------|---------------------------------|----------------|---------------------------------------|----------|
| 1 | Mr. Ian Makin | United Kingdom | 2 June 2015 | Valid |
| 2 | Prof. Abdelhafid Debbarh | Morocco | 12 June 2015 | Valid |
| 3 | Prof. Dr. Charlotte de Fraiture | Netherlands | 17 August 2015 | Valid |

27. The nomination of Prof. Dr. Charlotte de Fraiture was invited from Netherlands National Committee under *By-law 2.5 – Nomination by President*, wherein the nomination can be received up to one month prior to the IEC meeting. Since there are only three candidates for three vacant position of Vice Presidents, the voting will take place only to decide the seniority of the three candidates as per *By-law 2.8*.

IEC Agenda Item 13: Presentation of ICID Plaques

PCTA Agenda Item 13.1: Retiring Vice Presidents

28. Citation plaques will be presented during the IEC meeting to the following three retiring Vice Presidents for their services and guidance to the ICID activities during their tenure 2012-2015:

| | | |
|-------------------------|--------|-------------|
| Mr. Laurie C. Tollefson | Canada | (2012-2015) |
| Dr. Hüseyin GÜNDOĞDU | Turkey | (2012-2015) |
| Mr. François Brelle | France | (2012-2015) |

PCTA Agenda Item 13.2: Retiring Chairs of Workbodies

29. The following retiring Chairpersons of Workbodies will be honoured with the presentation of citation plaques for their commendable guidance to the activities of the concerned workbodies.

| |
|---|
| Dr. Gerhard R. Backeberg (South Africa), Chairman, TF-FIN (2009-2013) |
| Mr. Peter S. Lee (United Kingdom), Chairman, WG-POVERTY (2010-2014) |
| Prof. Kim, Tai-Cheol (Korea), Convener, C-CONGR (2012-2014) |

IEC Agenda Item 14: Any other business by the permission of the Chair



Annex 1 [IEC Item 5, Para 9]

**ACTION TAKEN REPORT ON THE DECISIONS ON THE
MINUTES OF 65TH IEC MEETING**

| Sl. No. | Item | Decisions | Action Taken |
|---------|--|---|---|
| 1. | Report of the Secretary General | The Council endorsed the proposal to Include the recognized Heritage Irrigation Structure (HIS) in "ICID Register of Heritage Irrigation Structures". | Included in the Register maintained at ICID website. |
| 2. | Outcome of 22 nd ICID Congress | The Council endorsed the Gwangju Statement issued during 22 nd ICID Congress | Widely disseminated through various ICID media channels. |
| 3. | Presentation on Strategy Theme "Knowledge" | The Council endorsed the report presented by VP A B Pandya and approved in principle the proposal for re-establishing a new WG on Capacity Building. | The scoping document for establishing a new WG on Capacity Building incorporating the other recommendations has been presented at the PCTA. |
| 4. | Resolution IEC-1/65 (Sr. No.2) Report PFC (Para 26) | Approved the direct membership of (1) Er. Tumaini E.R. Mazengo (Tanzania) and (2) Mr Naty Barak (Israel) in the category of Individual (Young Professional) and Individual (Retiree), respectively. | The decision has been communicated to new direct members and certificates have been issued to them. |
| 5. | Resolution IEC-1/65 (Sr. No.3) Report PFC (Para 27) | Approved Life Membership fee structure for the Individuals and Individual (Retirees) | Revised the Direct Membership Free Structure has been implemented and published in all related literatures |
| 6. | Resolution IEC-1/65 (Sr. No.7) | Approved the fee structure for the 67 th IEC and WIF2 in 2016 in Thailand and 68 th IEC and 23 rd Congress in 2017 in Mexico | The decision has been communicated to respective host National Committees. |
| 7. | Resolution IEC-2/65 (Sr. No.1 & 4) Report PFC (Para 30) | Approved the establishment of World Irrigation & Drainage Prize Corpus Fund and adopted the Rules and Regulations for the WID Corpus Fund. | Notified the establishment of WID Prize Corpus Fund Approached the institutions/donors/individuals/corporate bodies/research institutions for promoting objectives of WID prize and sponsor the same. Requested the NCs/DMs/IOs/Private Sector companies to donate/sponsor the WID Prize. |
| 8. | Resolution IEC-3/65 (Sr. No.4) Report PCSO (Para 33) | Approved the establishment of the ICID Young Professionals' Forum by converting WG-YPF. | Established ICID YPF through open membership and formation of core team by Forum members. The rules are being developed to assist the organization of Young Professionals |
| 9. | Resolution IEC-3/65 (Sr. No.11) Report PCTA (Para 38) | Requested the Management Board to establish an International Steering Committee (ISC) and International Technical Advisory Committee (ITAC) for WIF2. | ISC and ITAC for WIF2 have been established and the same have been notified vide Notifications Nos.2 and 3 dated 29 March 2015 respectively. 1st meetings of ISC and ITAC were organized and reported at PCTA |

Annex 1 [Continued]

| Sl. No. | Item | Decisions | Action Taken |
|----------------|--|--|---|
| 10 | Resolution IEC-3/65 (Sr. No.12) | SG to revisit the YP mentorship scheme considering new inputs and present a revised proposal at the 66 th IEC meeting in Montpellier, France. | A revised YP mentorship scheme presented at PCSO. |
| 11. | Resolution IEC-4/65 (Sr. No.1) | Adopted the amendments to the ICID By-laws 2.1, 2.3, 2.5, 2.6 and 2.7 concerning Election of Office Bearers (By-law 2) | Updated the ICID By-laws accordingly and uploaded on the website and intimated the Registrar of Cooperative Societies, Gol accordingly. |
| 12. | Resolution IEC-5/65 (Sr. No.1, 2 and 3) | Approved the WatSave Awards, BPNCA, BPWA, and WID Prize Schemes | Invited nominations for WatSave Awards 2015 as per approved Scheme and the schemes included in the Handbook of Procedures. |



**IMPORTANT DECISIONS TAKEN BY THE
MANAGEMENT BOARD ON BEHALF OF IEC
BETWEEN
65TH IEC MEETING (GWANGJU, SEPTEMBER 2014) AND
66TH IEC MEETING (MONTPELLIER, OCTOBER 2015)**

(And the actions taken thereon)

| Decision | Request |
|--|----------------------------------|
| I. Virtual Management Board Meeting No.1/15, 28 February 2015 (via WEBEX teleconferencing) | |
| 1. MB approved in principle the offer of ENCID to host the 4 th African Regional Conference in Cairo, Egypt from 26-28 April 2016. | Endorsement by IEC is solicited. |
| II. Virtual Management Board Meeting No.2/15, 26 May 2015 | |
| 2. MB approved proposed subscription rates for the 'Irrigation and Drainage' for ICID members for the year 2016 to be US\$ 46 for 'online only' version and US\$ 55 for 'online + print' version in the interim which will be placed before PFC prior to its approval in 66 th IEC. | Endorsement by IEC is solicited. |
| 3. MB approved the proposal for technical and financial sponsoring to the Workshop on 'Water Logging and Soil Salinity in Irrigated Agriculture' held in Sept 2015 at Chandigarh co-organized by Central Board of Irrigation & Power (CBIP) and the Indian National Committee. | Endorsement by PFC solicited. |
| 4. MB decided to field ICID's candidature for the position of Governor for the elections to the Board of Governors (BoG) of World Water Council and authorized SG to take further necessary action in this regard so as to file the nomination by the prescribed deadline for receipt of candidatures, i.e. 12 September 2015. | Endorsement by IEC is solicited. |



Annex 3 [IEC Item 7, Para 11]

PRESENTATION ON STRATEGY THEME ‘BASIN’
VP Laurie C. Tollefson and VP Dr. Mohamed Wahba, Co-Theme Leaders

The technical activities of ICID are organized under four strategy themes. These themes include: Basin, Systems, On Farm, and Knowledge. This review examines the strategy theme Basin and will consist of an appraisal, a vision and future direction for the theme. The topics to be addressed under the strategy theme Basin include:

- (a) policy planning framework, economic and legal issues;
- (b) water and soil resource management, environment, and sustainable development.

The strategy theme Basin includes the work of six workbodies:

- (a) Working Group on Water Management in Water Stressed Regions (WG-DROUGHT);
- (b) Working Group on Sustainable Development of Tidal Areas (WG-SDTA);
- (c) Working Group on Environment (WG-ENV);
- (d) Working Group on Comprehensive Approaches to Flood Management (WG- CAFM);
- (e) Working Group on Global Climate Change and Agricultural Water Management (WG-Climate);
- (f) Working Group on Water for Bio-Energy and Food (WG-BIO-ENERGY).

My general observation is that the WG's under the strategy theme Basin are functioning quite well and are productive. In some cases membership and attendance is limited and in others is very good. In some cases new membership is being attracted and the observers attending is high indicating a strong interest in the topic. Poor attendance at the meetings and lack of contribution by the members is a concern. This leads to a reduced productivity and output. If a WG is to be successful, participation and contribution are critical. Travel and registration costs and location can be an issue in member participation but better use of contributions through email and correspondence must be made. Encouragement of younger professionals is key and E membership should be considered. Country participation and contribution are key to the successful work in a WG and ICID.

Working Groups Strategy Theme Basin

(1) WG-DROUGHT – This committee was established in 2008 with the completion scheduled for 2015. It is mandated to capture field experiences with the implementation of drought risk management strategies for coping with water scarcity, looks at approaches for and strategy for incorporation, economic justification for allocation of water for agricultural production, competing with other uses and redefining as necessary the irrigation efficiency concept. The mandate is: drought management strategies, coping with water scarcity, and rainfall management.

The WG is chaired by Franklin Dimmick, USA, and is an important and productive WG. Attendance at the WG meeting is good as is participation by its members. The WG plans to publish a single document called WG-DROUGHT that will contain three chapters. A workshop was held in Mardin, Turkey whereby 18 papers were presented regarding 'Developing Management Strategies for Coping with Drought and Water Security'. The integrated drought management program was introduced.

Future activity should include focusing the WG on best management practices for on-going permanent water scarcity whether caused by natural or human intervention rather than temporary drought.

(2) WG-SDTA – This committee was established in 2011 with completion scheduled for 2016. The mandate is: identify sustainable management options of lowland watersheds, as well as sustainable development and management of water and land resources in tidal areas.

This WG is chaired by Dr. Ruey-Chy Kao, Chinese Taipei. It is a very productive WG. Good attendance and participation has occurred in this WG. The WG organized an internal workshop at Mardin. Nine papers were presented. The WG also published a special issue 'Sustainable Water and Land Management in Tidal Areas' in the ICID Journal Irrigation and Drainage (Oct. 2013). It contained 12 peer reviewed papers. The WG also organized an international workshop on Sustainable Management of Tidal Areas in an Era of Climate Change in Gwaniju, Korea, 2014. Seven papers were presented. In addition, a short course is being organized for 2015, potentially to be held in Taiwan. It will consist of six days with three days of lectures and three days of technical tours.

Future activities include a special issue of the ICID Journal in 2016. It was suggested that the WG may consider a webinar or e-learning package as a means to better distribute information.

(3) WG-ENV – This committee was established in 2008 with completion scheduled for 2015. The mandate is: provide guidance to policy makers, planners, designers and managers in the irrigation and drainage sector on the environmental aspects of drainage and irrigation systems. The environmental aspects are physical, chemical, ecological, socio-economic and cultural as well as concerns to the effects on climate and human health. The WG will aim for the management of a sustainable environment, maximizing positive and minimizing adverse effects of irrigation and drainage systems.

The WG is chaired by Dr. Perret, France. It is an important WG. Attendance and participation by membership was at times less than expected. The WG recommended that the tenure of the group be extended for one year to facilitate the development of a new scoping document for future activity beginning in 2015.

The WG has developed a draft overview document 'the potential contribution of Life Cycle Assessment to analyzing the environmental impacts and sustainability of irrigation and drainage systems'. Another major contribution was an international workshop held in Australia in 2012.

In terms of the future of the WG, there is a continued need for a WG studying the relationship between irrigation and drainage systems and the environment. A sharper focus is required and the scope and jurisdiction of the WG should limit its activity to a smaller number of topics. More continuous activities are required including communication and contribution by members at, but also in between, WG meetings. Interaction through videoconference, webinars, etc., are important. The new mandate might consider additional emphasis on ecosystem services and multifunctionality concepts.

(4) WG-CAFM – This WG was established in 1999 with completion scheduled for 2015. The mandate is: to study the social, political and economic aspects of flood mitigation measures, aims at making flood management ecologically sound and encourage participation in flood disaster preparedness. This is done by: identify and disseminate various structural and non-structural measures of flood management, examine the social, political and economic aspects of flood mitigation measures, ecologically sound development, international cooperation as well as people's participation in disaster preparedness. Assist planners, managers, and designers setting up holistic, integrated and adaptive flood management schemes in view of uncertainties resulting from climatic and hydrological system changes.

The WG is chaired by Dr. Emami, Iran. It is an important long-running WG. The WG plans to publish a document Adaptive Flood Risk Management based on workshop papers and country presentations on floods in 2015. The document will be reviewed and published in 2015. The WG will hold a workshop in Montpellier on Flood Risk Management and plans to hold a seminar called 'Floods and Agriculture' at the 2nd World Irrigation Forum in Thailand.

The future of WG-CAFM has a special role or potential in attracting countries to participate in ICID. Even though ICID is perhaps better known for its expertise in irrigation, floods are an important cause of natural disasters that affect the rural poor in cultivated areas. Flooding is of particular interest to some European countries and those whose particular interest is not irrigation and drainage. This group will play a key role at the World Irrigation Forum 2 whose subtheme 2 is devoted to floods and droughts.

(5) WG-CLIMATE – This WG was initiated in 2005 with completion scheduled for 2015. It was established to stimulate discussion and awareness of water related global climate change issues particularly in irrigation and drainage. The mandate is: to review the progression of and predictions for Global Climate Change (GCC) and climate variability, explore and analyze the medium term implications of climate change and variability for irrigation, drainage and flood control, to stimulate discussion and raise awareness of water related GCC issues within ICID, stimulate discussion at the national scale among scientists, policy makers, media and the general public on GCC and water, join international dialogue on GCC and water.

While considerable work is being done worldwide on understanding and describing the impacts of climate change on water resource management, its implications on irrigation, drainage and flood management require additional study. Climate smart agriculture is an important potential area of interest that should fit nicely in this WG.

This WG is currently chaired by Dr. Mark Svendsen, USA. He has indicated a desire to step down from this role. Considerable interest has been shown in this WG. Excellent work from the WG was conducted at the 22nd ICID Congress where two questions were raised. Prof. Watanbe was general reporter Q58 and delivered the general report. This was included in the Gwaniju statement. A proposed extension has been requested to 2017 with Prof. Watanbe as chair leading the development of a revised scoping document. Climate change is an important issue to ICID and one that needs continued future attention.

An MoU between ICID and WMO was signed in July 2013. It enhances WMO's ability to use outreach capabilities and the expertise of ICID.

(6) WG-BIO-ENERGY – This WG was established in 2010 as a Task Force. The mandate of this group was to evolve ICID's position on water for Bio-energy and Food. It was to consider the possible conflict between food production and biofuel crops, water to produce food and non-food crops and the use of marginal soil/water for production of biofuels. What is the impact of biofuel production on food security?

The group is chaired by Laurie Tollefson, Canada. The TF/WG has had limited participation and contribution by country members. This has restricted the output from the group. A successful workshop was held in Australia where selected country presentations were provided. Based on the workshop and additional country presentations during WG meetings a technical report will be developed for publication in 2015.

It was recommended at PCTA in Korea that the WG would develop a new scoping document to reorient its objectives and scope of activities. This scoping activity whereby a future course of action will be decided will be presented in Montpellier, France. More interaction with WG Crops and Water and particularly their work with energy crops is needed. A stronger response of the National Committees and WG members is needed in the future or it should be terminated.

Future Vision

- (a) Implementation of the strategy theme will only be as good as the participation in the WG and TF by the National Committees and the individual involved. WG BIOENERGY is a good example. Nominations by National Committees and increased participation must occur to be successful.
- (b) Currently ICID working group formation is a top down approach and groups are prescribed without active membership lists. These WG's should be initiated from within. ICID needs to facilitate and stimulate the formation of WG's that pursue an agenda that fits the ICID mission.
- (c) All WG chairs and theme leaders should be trained on procedures initially. Ensure that the duties, expectations, close out procedures, etc., are fully understood.
- (d) WG productivity and need should be evaluated carefully and when mandate and objectives are completed a final report should be written and then move on. A final workshop is also recommended if even through video conference.
- (e) Carefully examine integration and co-operation within strategy themes and WG's. Ensure that clear mandates are in place and that activities are focussed. Overlap or WG creep can occur if not managed carefully.
- (f) Additional emphasis in some WG's needs to be placed on the economic and socio-economic side, along with legal and institutional aspects.
- (g) Continued and enhanced co-operation and MOU's with agencies like WMO, FAO, ADB, etc., where it is mutually beneficial to co-operate.
- (h) Continued and increased efforts to attract young professionals.
- (i) More information products produced and placed on websites.
- (j) Good dissemination of the information products from the WG's and initiating another kind of membership (E-membership) are key to encouraging participation in the activities of the WG's and ICID.



DRAFT VISION 2030 DOCUMENT (Version 2.0 Dated 27/08/2015)**[To be presented by Dr. Huseyin Gundogdu, Vice President, ICID & Convener, CG-Vision 2030]****1. INTRODUCTION****1.1 Background**

1. Water is the key resource. It is fundamental to all development processes and nurtures the three pillars of sustainable development – economic, social and environmental. Water resources management, and the essential services water delivers, constitute the key ingredients essential for achieving poverty reduction; maintain inclusive growth, public health, food security; providing livelihoods for a life of dignity for all and sustaining long-lasting harmony with Earth's essential ecosystems.

2. International Commission on Irrigation and Drainage (ICID) established in 1950 is the only global professional irrigation and drainage network, which strives to bring together various stakeholders in the irrigation and drainage sector to promote sustainable management of water for agriculture worldwide. It provides a unique platform for the exchange of knowledge and information related to irrigation, drainage and flood management and promotes its objectives through its network of professionals that constitute National Committees in member countries, like-minded international organizations, private companies, and institutional and individual members. ICID has actively contributed to the first Green Revolution and helped make it successful by promoting research, development, and technology transfer to developing countries of Asia and Africa to limited extent.

3. Given the global changes taking place within the overall development scenario through demographics, climate change and limiting natural resources, agriculture water management has to adapt to be sustainable in future in order to ensure water security, food security and sustainable rural development.

1.2 Purpose of the document

4. This document presents the shared vision of the ICID network and sets out the mission of the international network of irrigation and drainage professionals. The document summarizes what the network represents and whom it intends to serve through the sustainable development paradigm over the 15 years to 2030. The document presents and reviews the role that the network is playing and is intended to trigger discussions toward an agreement among the constituents on the future role of ICID and its members.

5. This draft vision document is intended to generate debate and discussions that ensure the end product will be owned by all the network members and they contribute their best efforts to fulfil the vision outlines. This document will be discussed in the PCSO, the OBC and the IEC meetings. The document would then be shared with ICID international partners. Based on the various inputs, it would be revised and presented to the MB.

1.3 Scope of the document

6. The members of ICID have given themselves a Constitution that binds them together and sets out the mandate and area of activities of the network. Having been in existence for more than 65 years, it has followed certain traditions and practices. Although the mandate of ICID has evolved over the years, starting from a purely engineering perspective of canal irrigation to now embrace the technical, agronomic, socio-economic and environmental complexities of irrigation, drainage and flood management issues within the Integrated Water Resources Management approach. To date the Commission has adapted to developing situations rather than setting forward looking goals. The Commission now presents a vision for the next 15 years that will help address the new sustainable development regime adopted by the United Nations, General Assembly by setting Sustainable Development Goals (SDGs).

7. As an institution that is largely dependent on the voluntary cooperative contribution of experts from around the world who are engaged in different aspects of irrigation and drainage, its activities are essentially an extension of the interests of the institutions where the experts work. It is the first time that an effort is being made to give forward looking direction to the activities of ICID in order to focus the voluntary efforts towards common goals.

8. The Vision is expected to support the National Committees, the building blocks of the network, and enable them to play a, much needed, wider role within the development community in their respective countries and regions and a more prominent role at international level.

9. The CG reviewed the terms of reference for the group and decided to undertake the assignment in two stages: (i) developing a consensus on the Vision for 2030 in the first stage and; (ii) taking a conscious decision not to present an action plan (or suggestions of the possible organisational and management re-orientation implied) but to leave development of an action plan to the second stage. Therefore this document does not present a new business plan for the network or recommendation for changes in the management that would need to be undertaken once the vision is adopted by ICID

10. This document sets out the framework of the vision of ICID with reference to present development scenarios and the emerging challenges for humanity. It summarizes changes taking place in the development environment and the growing concerns about water security, environment and food security that may emerge within the next 15 years. It takes cognition of the post 2015 sustainable development scenarios. In section 3, the document sets out the vision and identifies the ICID stakeholders and identifies their requirements.

11. The vision of — **A water secure world free of poverty and hunger through sustainable rural development.** Along with the proposed new mission and goals through which the vision would be realized are described in chapter 4.

12. The new vision and goals is likely to have some impacts on the ICID Constitution including ICID Rules and regulations that guide its functioning. It may also require re-orientation of the way the National Committees are organized. Chapter 5 introduces how the Commission could proceed to adopt the vision and then work towards setting/ reviewing the mechanism and articulating activities under various goals.

2. WATER MANAGEMENT IN A CHANGING DEVELOPMENT ENVIRONMENT

This chapter presents the post-2015 sustainable development agenda which needs to be factored in setting out the vision. Agriculture water management has to factor the water-food-energy-environment to achieve the objectives of sustainable development agenda, which is discussed briefly. The chapter also discusses briefly agriculture water management issues in various regions of the world. In the end the chapter reviews the approach that has been taken by the ICID network during the last 65 years and reasons out the need for setting a new vision for 2030.

2.1 Sustainable Development Agenda

13. Member States of the United Nations launched a process to develop a set of sustainable development goals (SDGs) based on their agreed perspective on the “Future We Want” (1). Of particular importance for ICID, the SDGs as being negotiated (2) recognize water to be at the core of sustainable development. The SDGs highlight that water is closely linked to a number of key global challenges. The leaders have reaffirmed their commitment to the right of everyone to have access to safe, sufficient and nutritious food, consistent with the right to adequate food and the fundamental right of everyone to be free from hunger.

14. Interlinkages between water and sustainable development reach far beyond its social, economic and environmental dimensions. Human health, food and energy security, urbanization and industrial growth, as well as climate change, are critical challenges where policies and actions at the core of sustainable development can be strengthened (or weakened) through water. Seven out of seventeen SDGs directly influenced by Agriculture Water Management are:

- (a) End poverty in all its forms everywhere (Goal 1),
- (b) End hunger, achieve food security and improved nutrition and promote sustainable agriculture (Goal 2),
- (c) Ensure healthy lives and promote well-being for all at all ages (Goal 3),
- (d) Ensure availability and sustainable management of water and sanitation for all (Goal 6),
- (e) Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all (Goal 8),
- (f) Take urgent action to combat climate change and its impacts (Goal 13), and
- (g) Strengthen the means of implementation and revitalize the global partnership for sustainable development (Goal 17).

15. Post 2015 Sustainable Development Agenda stresses the importance of access by all countries to environmentally sound technologies, new knowledge, know-how and expertise and stresses the importance of co-operative action on technology innovation, research and development.

16. It is well recognized that there is a need to facilitate informed policy-making and decisions on sustainable development issues. In this regard, there is need to strengthen the science-policy interface. Particular emphasis is being given to the need for: (i) technology transfer to developing countries; (ii) sound governance practices; and (iii) enhanced capacity-building for sustainable development. This recognition has given rise to the call for the strengthening of institutional, technical and scientific cooperation, including North-South, South-South and triangular cooperation.

2.2 Water, Energy and Food Interlinkages

17. Freshwater is essential in the production of food and generation of energy. It also plays vital roles in achieving progress in all aspects of development. Demands for freshwater, food and energy will continue to increase over the coming decades to meet the needs of growing populations and economies, changing lifestyles and evolving consumption patterns. These trends will greatly amplify existing pressures on limited natural resources and on ecosystems and the services they provide. The resulting challenges will be most acute in countries undergoing accelerated transformation and rapid economic growth, or those in which a large segment of the population currently lacks access to modern services.

18. Major regional and global crises – of climate, poverty, hunger, health and finance – that threaten the livelihood of many, are interconnected through water and energy. These crisis have substantial impact for the three billion people living on less than US\$2.50 per day. As a result, worldwide, an estimated 768 million people remain without access to an improved source of water, 2.5 billion remain without access to improved sanitation, more than 1.3 billion people still lack access to electricity and more than 800 million people suffer from hunger and malnutrition (3). These headline figures hide the fact that it is often the same people that face multiple challenges due to lack of access to water. For example, there is evidence of a close association between diarrhoea and related waterborne diseases caused by a lack of safe drinking water and sanitation and that malnutrition and hunger increases their vulnerability.

19. Water is a renewable but finite resource. It is an essential ingredient in food production. However, global water demand (in terms of water withdrawals) is projected to increase by some 55% by 2050, mainly because of growing demands from manufacturing (400%), thermal electricity generation (140%) and domestic use (130%) (4). Current climate change projections show that critical changes in the temporal and spatial distribution of water resources, and the frequency and intensity of water-related disasters, rise significantly with rise in global temperatures. The temporal variability of precipitation, that forms the source of fresh water, makes any economic activity dependent on availability of freshwater more fragile and risky. As a result, freshwater availability will be increasingly strained. More than 40% of the global population is projected to be living in areas of severe water stress by 2050. With agriculture being the largest user of freshwater, it is recognized that an inability to use water wisely in agriculture will endanger water security. Deterioration of wetlands worldwide is reducing the capacity of ecosystems to purify water. Adoption of adaptive management strategies in agriculture would help respond effectively to these changing and uncertain conditions.

20. Global energy demand is expected to grow by more than one-third by 2035. Electricity demand is expected to grow by approximately 70% by 2035 (4). Energy production is generally water-intensive. Meeting ever-growing demands for energy will place increasing stress on freshwater resources. Since food production and delivery of water services also require energy, there is room to create synergies.

21. At the same time, more than half of the area of irrigated agriculture is dependent on groundwater which requires energy for pumping. Groundwater irrigation, with energy as an essential ingredient, has many advantages for farmers. These include availability of water on demand; the absence of institutional constraints and systems; and minimal variability of supply. Groundwater has contributed substantially to total irrigated agriculture, including: about 39 million ha (63 % of irrigated area) in India, 19 million ha (32 %) in China, and 17 million ha (68 %) in the USA. However, there is clear evidence that groundwater availability is diminishing, with an estimated 20% of the world's aquifers being over-exploited, some critically so. With the lowering of the groundwater tables the irrigation systems dependent on groundwater are consuming more energy. In a number of countries energy pricing policies are considered to be a major cause of this situation. Irrigation is a primary consumer of energy on farms and, despite the water saving benefits due to the increased efficiency of pressurised irrigation systems, conversion from surface irrigation to pressurised systems will change the pattern of on-farm energy consumption.

22. Further, increasing energy demand presents increased stress on agriculture production for bio-energy, and in turn on the land and water resources, as countries commit themselves to reduce their carbon footprints under Climate Change regimes. The food-water-energy nexus recognizes these interconnectedness and the potential consequences of one sector on another (5).

2.3 Agricultural water management

23. The challenge is clear. In order to feed 9 billion people in 2050, under current market, institutional and economic features, the world must produce 40 per cent more food by 2050 and 100% more in developing countries (6). These challenges must be met with limited land and water, using less energy, fertilizer and pesticide while coping with rapid changes in many spheres. Increasing food production through sustainable use of water will, among others, require large investments in infrastructures, research and development, that are compatible with the preservation of ecosystems and are resilient to climate change. Globally, the current growth rates of agricultural water withdrawals are unsustainable. Therefore, the sector must increase its water use efficiency by reducing non-beneficial water losses and, most importantly, increase crop productivity with respect to water. Agricultural water pollution, which can worsen with increased intensification of agriculture, will need to be managed well.

24. Climate change is expected to result in increased frequency of droughts due to decreasing trends in precipitation in some areas, while others will see an increasing incidence of floods and other extreme events due to increasing trends in precipitation intensity and variability (1). This increasing variability of climate exacerbates risk and unpredictability for farmers, especially those who depend on the rain-fed agriculture and are the most vulnerable and the least able to adapt. In order to make agriculture sector sustainable as well as profitable, it is imperative to increase the climate resilience of agriculture, including increasing the irrigated area without increasing water withdrawals. The conceptual and practical framework of climate-smart agriculture (7) recognizes the need for adaptation and innovation in irrigated agriculture.

25. With water being the critical resource the area of irrigated agriculture has doubled, to 300 million ha, since 1960 and has played a major role in growth of agricultural production and building resilience against food insecurity and climate change. However, these advances have eluded large parts of Africa. Irrigation, supported by drainage, is expected to play a stronger role in future. With the potential for further expansion expected to be limited to an increase of only 20 million ha by 2050 (4) greater emphasis must be given to modernization of the existing irrigation infrastructure and improved services including optimal utilization of every drop of water made available at the farm level minimizing environmental and social negative impacts of irrigation systems, and maximizing positive amenities, goods and services to societies.

26. The challenges at the interface of water and sustainable development vary from one region to another. Increasing resource use efficiency, reducing waste and pollution, influencing consumption patterns and choosing appropriate technologies are the main challenges facing **Europe and North America**. Maintenance of old drainage systems in the reclaimed agriculture lands are also presenting new challenges in some of the countries. Although the region does not suffer from large precipitation variability, incidents of droughts are on the increase. Reconciling different water uses at the basin level and improving policy coherence nationally and across borders will be priorities for many years to come. Monitoring of the climate events, particularly the extremes and adoption of high-tech precision agriculture systems are some of the issues that are required to be addressed.

27. Sustainability of irrigation and drainage services in the **Asia and the Pacific** region to support high density of population is essential to meet the basic need for access to food and safe water. Large parts of the region lie in arid and semi-arid climatic zones and are subjected to frequent climate extremes, droughts and flood events. In many parts of the region, seasonal water scarcity is increasing and monsoon shows changing patterns. The region has seen development of large irrigation infrastructure in the last fifty years which has helped create food security and fuelled growth. However the farm sizes in the region are small and the majority of farmers engage in subsistence farming. Water managers in the region are facing the challenge of providing water and sanitation for the burgeoning population; meeting water demands across multiple uses; mitigating increasing pollution loads; poor irrigation services provided through aging irrigation and drainage infrastructure; and depleting groundwater resources. Many countries in the region are faced with an aging population of irrigation farmers; the young being more attracted by urban lifestyle and industrial or commercial work opportunities. The priorities for the region lie in improving overall water governance, including groundwater management; pollution control; modernization of existing irrigation systems; improving livelihoods and attractiveness in irrigation farming; improving efficiency in water use and increasing resilience to water-related disasters.

28. Water scarcity is at the forefront of consideration of water-related challenges impeding sustainable development in the **Arab** regions. The region is characterized by unsustainable consumption and over-abstraction of surface and groundwater resources. Water and soil salinization is a chief concern, which must be addressed through innovative and adapted water abstraction and use practices. Options being adopted to enhance water supplies include water harvesting, wastewater reuse and solar energy desalination which need to be combined with micro-irrigation technologies to make efficient use of costly water and make agriculture economically viable.

29. A major priority for the **Latin America and the Caribbean** region is to build the formal institutional capacity to manage water resources and bring sustainable integration of water resources management and use into socio-economic development and poverty reduction. Further priority is required to ensure the full realization of the human right to water and sanitation in the context of the post-2015 development agenda. Possible solutions lie in making agriculture systems resilient against droughts and modernising large irrigation systems where they exist.

30. In **Africa**, which missed the benefits of the first green revolution, the aim should be to make agriculture a sustainable and vibrant driver of national economies and create the right capacities to usher in the 2nd Green Revolution. Currently only 5% of the Africa's potential water resources are developed and average per capita storage is 200 m³ (compared to 6,000 m³ in North America). Only 5% of Africa's cultivated land is irrigated and less than 10% of hydropower potential is utilized for electricity generation. Smallholders with land holdings of less than 1 ha have no guaranteed access to water or to support services and training. In sub-Saharan Africa, the irrigation sector is largely based on, informally developed schemes, which are scattered over vast areas of land and around urban centres. There is need for both infrastructure as well as human capacity development. Modernization and improved governance in existing schemes are also required in most countries. Especially, land and water institutions and access regulations need be reviewed, revised, strengthened, and/or clarified, depending on national context.

2.4 ICID and Agriculture Water Management

31. The **Mission** of the International Commission on Irrigation and Drainage (8) is to stimulate and promote the development of the arts, sciences and techniques of engineering, agriculture, economics, ecology and social science in managing water and land resources for irrigation, drainage, flood management and river training applications, including research and development and capacity building, adopting comprehensive approaches and up-to-date techniques for sustainable agriculture in the world.

32. This mission as outlined in ICID Constitution (8) is pursued by fulfilling the following objectives:

- (a) Planning, financing, socio-economic and environmental aspects of irrigation, drainage, and undertakings for the reclamation and improvement of lands as well as the design, construction and operation of appurtenant engineering works including dams, reservoirs, canals, drains and other related infrastructure for storage, conveyance, distribution, collection and disposal of water.
- (b) Planning, financing, socio-economic and environmental aspects of schemes for river training and behaviour, flood management and protection against sea water intrusion of agricultural lands as well as the design, construction and operation of appurtenant works, except such matters as relate to the design and construction of large dams, navigation works and basic hydrology;
- (c) Research and development, training and capacity building in areas related to basic and applied science, technology, management, design, operation and maintenance of irrigation, drainage, flood management, river training improvement and land reclamation works.
- (d) Facilitation of international inputs required by the developing countries, particularly the low income countries lagging in the development of irrigation and drainage;
- (e) Promotion of the development and systematic management of sustainable irrigation and drainage systems;
- (f) Pooling of international knowledge on topics related to irrigation, drainage and flood management and making this knowledge available worldwide;
- (g) Addressing international problems and challenges posed by irrigation, drainage and flood management works and promoting evolution of suitable remedial measures;
- (h) Promoting savings in use of water for agriculture;
- (i) Promoting equity including gender equity between users and beneficiaries of irrigation, drainage and flood management systems; and
- (j) Promotion, preservation and improvement of soil and water quality of irrigated lands.

33. ICID believes that food security at various levels: household, local, regional, national and global, requires assured and stable agriculture production. ICID is committed to enhance the world wide supply of food and fibre which can come mainly from irrigated agriculture. ICID is dedicated to enhancing the food production worldwide by improving the productivity of production factors in irrigated lands, i.e. water, labour, land, equipment, agrochemicals etc. through better water and land management. ICID believes that food production should be enhanced in ways that do not compromise the environment, now and for generations to come.

34. Irrigation water systems, at the local and national levels, are designed to fill the gap between supply and demand for water at various spatial and temporal scales. They ensure availability of water in rural areas for

agriculture and other uses. These systems make agriculture more resilient to the vagaries of climate. The more assured production that results from irrigated agriculture encourages re-investment in the sector and generates surpluses.

35. Irrigation is often a multifaceted endeavour that requires interaction among various sectors, institutions and users. Sustainable use and efficient management of irrigation systems requires understanding and cooperation among these multiple actors. ICID works towards creating a synergy between agricultural and water policies, improvement of publicly operated irrigation schemes, advocating for increased investment both from public and private sources for expansion of irrigated area, and the modernization of existing infrastructure. It supports knowledge sharing concerning all aspects of agriculture water management including collation of irrigation statistics; data and information exchange; sharing of successful management strategies, best practices and knowledge. It supports and encourages multiple-use and the promotion of amenities, good and services provided by irrigation systems.

36. The cooperation mechanisms used by ICID network range from simple exchange of information through its annual meetings where practitioners, researchers and planners from both developed and developing countries participate, to collating latest research and innovations through its Journal on Irrigation and Drainage, developing guidance material and their dissemination through various channels. ICID organizes triennial World Irrigation and Drainage Congresses, annual Regional Conferences, and international drainage workshop and micro irrigation conference to address and discuss issues of global or regional importance. ICID at its triennial Congress deliberates on certain specific questions relating to irrigation and drainage.

37. Irrigation systems and professionals play an increasingly crucial role in eradication of rural poverty by creating sustainable livelihoods for the majority of rural population, particularly in developing countries, and by supporting healthy living environments. Irrigation and drainage is an important contributor to sustainable rural development. It is therefore appropriate for ICID, to realign its vision and dedicate itself to a mission that supports the post-2015 sustainable development agenda in the context of climate change.

38. The ICID vision for 2030 is of **“A water secure world free of poverty and hunger through sustainable rural development”**.

3. STAKEHOLDERS AND USERS

For a network to be relevant and effective, it has to clearly recognize the constituency it intends to serve, their needs, strengths and weaknesses and at the same recognize the partners with whom it has to work with and develop synergy to achieve the desired objectives. This chapter briefly discusses all such stakeholders that influence agriculture water management, can be partners in achieving objectives and direct and indirect users of the services provided by ICID.

39. Irrigation water delivery is a service to users and its quality and reliability an essential input for stable production and the adoption of advanced farm practices. Expansion and modernisation of infrastructure and adoption of technological innovations have to be accompanied by informed policies, prudent financial management, appropriate institutional reorientation and transparent governance (6). ICID recognizes the close nexus of water-energy-food and that engaging the respective stakeholders and users from these sectors is a pre-requisite for understanding their needs when articulating a vision for agriculture water management.

40. A number of disparate stakeholders have an interest in the way agriculture water management (AWM) policies are formulated and implemented. They include the members of the ICID network, the users they serve, and the groups that provide variety of services to support AWM. Various development partners at the regional and international levels that have similar goals and objectives also influence the way AWM goals are set and achieved.

41. The main stakeholders of ICID may be categorised as: primary stakeholders – the national committees, irrigation and drainage professionals and farmers that constitute the core stakeholders; secondary stakeholders – policy makers and the industry who have the responsibility to facilitate and also influence the activities in agriculture water sector; and the tertiary or peripheral stakeholders - the society at large.

3.1 National Committees

42. National Committees are the core stakeholders of ICID. They represent various stakeholders, in their respective countries, engaged in different facets of agriculture water management. Ideally, they include experts from water resources, irrigation, agriculture, rural development, hydro-power, environment, and flood management sectors and theme of finance and economics. In the majority of countries the National Committees (NCs) are hosted within one of the related government departments dealing with the above subjects and include

representatives from research institutions, universities, private sector companies, and in some cases farmers' groups.

43. The new vision is expected to boost the role of NCs in implementing the sustainable development agenda within their countries. Particularly with respect to meeting the goals of poverty alleviation, food security and sustainable water management and other related SDGs in the context of Climate Change. NCs need to be strengthened and supported to serve as the common platform for various AWM stakeholders. They would have to be supported through sharing of international experiences and best practices, knowledge and tool acquisition to enable them to fulfil their obligations towards the country. Particularly, they would have to be supported with tools that are the products of multi-disciplinary efforts and strengthening of their capacities to facilitate interdisciplinary collaboration. These tools would have to be adapted by the NCs to suite the given socio-economic situation and address the required inputs for formulating and implementing agriculture and water policy issues in the country. The NCs would be supported through institutional and individual capacity development and information sharing specific to their needs.

3.2 Irrigation and Drainage Professionals

44. As the only international network in irrigation and drainage sector professionals, ICID has the responsibility to satisfy the professional and intellectual needs of the members directly engaged in irrigation and drainage activities. The large public sector irrigation and drainage departments in Asian countries and also in Africa, often suffer from ill-maintained infrastructure along with demoralised irrigation and drainage cadres and outdated professional skills. The sector also suffers from the lack of penetration of latest science and technology tools due to variety of reasons. Also, in many countries, irrigation and drainage approaches are still confined to engineering and technical aspects, while existing and emerging challenges call for a more open, integrated, multidisciplinary approach. The sector as a result is lacking in new research and innovation ideas as well as resources. Given the complexity of development process, irrigation and drainage professionals need exposure to the economic, social, environmental and other disciplines that influence agricultural water management.

45. At the same time the sector is challenged by the lack of interest from the young professionals as they find the carrier in the sector uninteresting with little growth potential. This lack of interest in the sector among the young generation has resulted in the closure of irrigation and drainage departments in academic institutions around the world. There is need to make careers in irrigation and drainage sector interesting and challenging. Information has to reach them at their finger press, which they are used to in the era of social media.

3.3 Farmers

46. Farmers are the most important user of services that the network provides through its National Committees, and as such constitute important stakeholders. They range from a subsistence farmer typically holding 0.5 ha of land to a commercial farmer holding up to 100 of ha of farms with varying needs and requirements. Small-scale family farming remains the predominant form of farming worldwide (88% of all farms; 40% of global labour force; 80% in West Africa), and the reality is that such farming systems are currently feeding the world, and are likely to continue doing so, provided appropriate technological, policy and financial measures are taken.

47. Like any other enterprise, commercial farms are driven by financial results. The services provided by irrigation systems should reduce the financial risks and increase profitability for farmers. Driven by practices rooted in tradition, introduction of new tools and processes are likely to find resistance, if not adequately articulated and demonstrated. Introduction of new techniques, need to be governed by the perspective and interests of farmers. Larger societal and global sustainability discourse, therefore, has to pass through the prism of the economics of their enterprise.

48. Small-scale family farming are not only driven by profit, but also by food security concerns, the quality of living standards, the benefits of social capital (solidarity, trust, low transaction costs, collective action in irrigation management), the attractiveness of rural life style. They are the main suppliers of most of the world's food markets, and have many other virtues: knowledge of ecosystems, sustainable management practices, contribution to local food security and regional development, and capacity to provide local employment. They are also typically using water and irrigation infrastructure in multiple ways, for multiple purposes (sanitation, bathing, drinking and other agro-based activities). In irrigation systems, such traits are crucial and must be considered when promoting new sustainable technologies or practices. In addition to providing water for multiple uses medium to large irrigation systems also serve as the means of communication and thereby serve as vehicle for overall rural development.

3.4 Policy Makers

49. Policy makers, i.e., the political leadership, planners, and bureaucrats have the responsibility to ensure the provision of the basic necessities to its citizens within the framework of given natural, financial and human resources and institutional framework (legislation, organisations, and regulations). Despite the recognition of the close linkages between different development sectors the policy making often remains compartmentalized. Experts who understand the consequences of these linkages have the duty to create awareness among and convince policy makers of multi-disciplinary interlinkages so as to facilitate factoring of these interdependencies in the decision making process.

50. In order to support policy makers in taking right and most appropriate decisions it is essential that the professionals are able to develop and present different development scenarios, explaining the socio-economic impacts of alternate choices. At the same time the practitioners need to translate the results of such studies from the technical terminology to the language of development and human impacts which is easily understood by non-technical professionals as well as common man. As such the ICID Vision 2030 has to respond to the requirements of policy makers at the national, regional and international level which constitute an important target audience for the outputs of the ICID network.

3.5 Irrigation and drainage industry

51. The irrigation industry includes public sector agencies, private consultancy companies, individual consultants, contractors, manufacturers, and service providers. The industry in today's global marketplace plays an important role in the transfer of technology. They have to be sensitized to look beyond the short term goals of project implementation while recommending technologies, particularly when working in the developing countries. While selecting and implementing new technologies the solutions adopted need to be sustainable and will, in general, need to include capacity development component.

52. The rural development workers have to cater to a plethora of complex rural development issues that relate to different disciplines. These complexities have to be brought to the knowledge of common stakeholders in their own language. As these development workers act as true interlocutors and facilitators at the ground level it would be appropriate to target them for delivering the message effectively. Institutions engaged in agriculture as well as water related research have the onus of targeting the needs of small holders and subsistence farmers.

3.6 Research and the academia

53. Multidisciplinary research has a special role to play in understanding the complexity of issues in the agricultural water management sector. In all countries, ICID at large, and country committee members specifically must play a linking role in promoting back and forth communication between practitioners and farmers on one hand, and researchers on the other hand. Indeed, orienting national and international research efforts towards addressing immediate burning issues, understanding on-going transition processes, and solving problems must be a priority. Similarly, readily available research results and state-of-the-art diagnoses, methodologies and solutions must be made known and available to practitioners and policy-makers. ICID is committed to promote, foster and support such two-way communication.

3.7 Society at large

54. Being the ultimate consumer of agriculture produce, and as a competing water consumer in various forms, society at large is impacted by the way the network serves farmers to produce more nutritious food and fibre with minimum water and without adversely impacting the environment. Under the growing water scarcity, in many parts of the world, water saving in agriculture sector, which withdraws 70-80 percent of water, could go a long way in meeting the growing demands in other sectors. Other stakeholders in development process such as professionals and policy makers in energy, urban development, and environmental management sectors that influence consumption patterns and the quality of water that is made available for the AWM have also to be included as ICID secondary stakeholders. ICID recognizes the growing awareness of society at large on environmental and social issues related to production worldwide, and the capacity of consumers for discerning products resulting from sustainable production practices, should proper labelling or information exist. Although a challenging task with multiple stakeholders, the promotion of sustainably-produced (in social, economic and environmental terms), cheap, accessible, healthy and nutritious goods needs to be considered. ICID commits to play its role in information sharing towards larger audiences, and the general public, whenever and wherever possible.

4. THE VISION

55. The new challenges that the world faces today and will face in the coming years call for a renewed vision for ICID. In order to fulfil ICID's obligations towards its stakeholders and users of its outputs, described in its current mission, there is need to review the ICID vision and its mission. The current review aims to identify a set of goals that would help ICID network to fulfil its mandate. The new proposed vision, mission, the core values and the goals are described in this section.

4.1 Vision

56. Vision of ICID is proposed as a: **“Water secure world free of poverty and hunger through sustainable rural development.”**

57. We believe that through prudent agriculture water management agriculture production can be made more resilient resulting in reducing the incidence of hunger, ensuring food security, improving rural livelihoods and maintaining ecosystem services. Irrigation and drainage infrastructure, while ensuring availability of water for agriculture, also serve multiple roles such as ensuring the provision of safe drinking water and sanitation thereby improving the health and productivity of the rural population. At the same time irrigation infrastructures also serve as means of communication and help farmers' in easy access to markets for inputs and selling agriculture produce. As such irrigation and drainage infrastructure serves the overall rural development directly contributing to five of the seventeen SDGs and indirectly influencing another seven SDGs (1, 2, 3, 6, 8, 13 and 17).

4.2 Mission

58. The proposed mission of ICID is to: “Facilitate prudent agriculture water management by encouraging interdisciplinary approaches to irrigation and drainage management.”

59. The vision of ICID will be achieved by generating new knowledge, compiling and collating information, sharing experiences and good practices and disseminating the new knowledge to the relevant stakeholders. Prudent AWM is not confined to the efficient use of water in agriculture, but is concerned with making optimal use of water diverted for agriculture for the overall benefit of the rural community and preserving the quality of return flows to receiving water bodies.

4.3 Core Values

60. The core values of ICID are defined by the:

- (a) non-profit objectives of the network;
- (b) voluntary contribution of time and monetary resources by its members and experts; and
- (c) sharing of knowledge and experiences among stakeholders.

61. These Core values are underscored by the empathy of the networks members towards those suffering hunger and poverty.

4.4 Goals

62. In order to realize the vision ICID will set clear organisational goals for the network. In addition to the organisational goals of the international network, the national committees will have specific goals at the national level, addressing the specific national needs. ICID Central Office will continue to play a pivotal role in coordination and management of the network and will facilitate the network in realisation of organizational as well as national level goals. The organizational level goals would be:

- (a) Enable more crop per drop
- (b) Be a catalyst for change in policies and practices
- (c) Facilitate technology exchange
- (d) Enable cross disciplinary dialogue
- (e) Support development of tools to convert research and innovation into field implementation
- (f) Facilitate capacity development

Goal 1: Enable more crop per drop

63. It is well recognized that agriculture is the sector where the potential for water productivity gains is highest. All sources of water (rain, surface water, groundwater and wastewater) are important to achieve food security. As regional water-supply pressures intensify, agriculture will rely increasingly on improved water management to sustain productivity and increase the economic value of irrigation water. Efficient irrigation systems and water management practices can help maintain farm profitability. Efficient water management also reduces the impact of irrigated production on offsite water quantity and quality.

64. The technical solutions to enable production of 'more crop per drop' exist¹. Measures to increase water-use efficiency may not be compatible with environmental goals such as maintaining minimum environmental flows. Meanwhile, opportunities for improved water management have expanded with advances in irrigation equipment and practices, lower technology costs, and expanded information resources. Reduction in consumptive use of water in agriculture has to be prioritized to respond to the needs in other sectors. Resource conserving technologies have demonstrated potential to increase productivity of land, labour, capital and inputs.

65. Additional investments are needed to increase irrigation efficiency at the field, farm and irrigation-area scales to fill the supply and demand gap and enable adaptation to increasing climate variability and change. But investments and political will are often lacking to improve rain fed production and modernize irrigation systems.

66. ICID network would advocate with the national governments and funding agencies to make strategic choices that favour production of more crop per drop contributing to sustainable agricultural water management.

Goal 2: Be a catalyst for a change in policies and practices

67. Water policy is inherently difficult as it involves trade-offs between the benefits and costs of: alternative uses, different sectors, equitable distribution of resources and required institutional arrangements. Governing policies need regular revision in view of changing demand patterns and technological advances, and as social experience with water management arrangements progresses. Developing policies for managing water systems for human needs in such a complex environment is difficult, slow and very costly. At the same time the correct policy, institutions and market incentives are essential to increase water-use productivity in agriculture. For example, water policy instruments such as energy pricing, water entitlements and transfer provisions, and eco-conservation programs provide incentives for improved management of water supplies at the farm level.

68. It must be acknowledged that the benefits of changes in water-resource management are difficult to measure because of the common property nature of water resources. These are particularly important in the case of competing inter-sectoral demands, or in large river basins that cross jurisdictions.

69. Decision-makers need planning tools to secure water allocation and distribution among various uses, users and regions. It is important that the policy makers are provided the appropriate tools that are developed on sound scientific principles which are also suitable for the given socio-economic conditions. They need the right tools to evaluate various alternative AWM strategies.

70. Models can now establish multiple policy scenarios with alternative assumptions about future developments based on a variety of economic, demographic, hydrological, and technological trends. This enables a broad range of "what if" questions to be carried out using modelling approaches and procedures. Mathematical models for simulation and optimization are proven examples of such tools. The outputs from such studies can be used for negotiations and as the basis for agreements among administrations and sectors for access to water resources.

71. The network would provide guidance to water policy analysts on experiences with the latest tools and modelling principals for simulating development scenarios to generate knowledge which can serve as catalyst for policy changes.

Goal 3: Facilitate technology exchange

72. Current irrigation systems and services are generally characterised by low water use efficiencies. Irrigated agriculture is under considerable pressure to adopt practices and methods to increase efficiency of water use. New irrigation technologies that are becoming popular result in either increased productivity or increased water availability for alternative uses (e.g. environmental flows to maintain ecosystem services) or both. Pressurized

¹ Some of the areas which need to be considered in this direction are adoption of improved agronomical, agricultural and water management practices; institutional and organisational reforms; participatory approach- PIM, IMT; use of modern irrigation techniques and technology etc.

irrigation technologies are slowly penetrating the North-South technology divide. They have helped to increase water use efficiencies and yields and reducing labour requirements in irrigation.

73. Despite the fact that irrigation has served as one of the pillars of the technology oriented Green Revolution during the 70-90s, irrigated agriculture is one area where the latest developments in science and technology have not penetrated adequately, particularly in developing countries. Use of remote sensing and precision application of water and fertilizers, supervisory control and data acquisition (SCADA) system application, extended weather predictions for assessing seasonal water availability, drought monitoring and predictions and their use in water releases from reservoirs for optimum utilization have failed to find widespread application in developing countries although these are in use in more advanced economies for some time now.

74. One reason for the lack of technology uptake lies in the fact that most of farmland holdings especially in Asia and Africa are very small and the farmers neither have the economic incentives or capacity and motivation to use these technologies. In some situations these technologies are not available due to lack of institutional or financial capacity. Some of these new irrigation technologies will change the patterns of on-farm energy consumption and may potentially increase greenhouse gas emissions with environmental consequences. A life cycle assessment approach to the positive and negative impacts of a given approach needs to be undertaken. The initial capital costs limits the rate of adoption of new technologies, while operating costs can mean that the overall financial position of farmers is compromised.

75. ICID would work towards exchange of new technologies for sustainable AWM, facilitate analysis of trade-offs to maintain the economic efficiency of agricultural production and minimising the adverse environmental impacts.

Goal 4: Enable cross disciplinary dialogue

76. Global climate change is no longer a 'what if' exercise and no investment can ignore information regarding the predicted dimensions of climate change risks and their potential societal impacts. At the same time the economic evaluation of various options for achieving sustainable agriculture water management strongly depends on how the saved water will be used. Will the water be used to: (i) increase the crop area, (ii) increase the intensity of growing high value cash crops, (iii) trade the saved water temporarily or permanently through a water market, (iv) or sold to other users. These evaluations and final decision require assessment of industry-wide trade-offs between water savings, energy consumption and economic returns associated with irrigation technology transformation.

77. At the same time, concerns regarding equity in development, demands for greater rural producer empowerment, developments in biotechnology and biosafety, the growing importance of agro-food chains, and the changes in information and communication technologies combine to make the decision making more complex and involved.

78. For sustainable development analysis of a number of options is required from various perspectives that calls for contribution of experts from different disciplines speaking different technical languages with their own terminology. Ultimately the decision making process has to be based on science based information and knowledge from different disciplines and a dialogue between various interest groups – users and uses. To be able to appreciate each-others' viewpoint, they have to be familiar with the simplified terminologies. At the same time the final decision on the trade-offs has to be taken by politicians, planners, bureaucrats and stakeholders: not only by the farmers but the society at large.

79. ICID network would make available the required information in respect of irrigation, drainage and flood management to all the relevant stakeholders in the language suitable for their appreciation. Where required, platform for inter-disciplinary networking would be facilitated for dialogues between various groups.

Goal 5: Support development of tools to extend research and innovation into field implementation

80. Success of application of research and innovations in agricultural and rural development depends on individual actions of millions of rural families, whose decisions are shaped by the information, knowledge and technologies available to them. An important question to ask is how do farmers get information? Surveys indicate that a key general source of information for farmers is other farmers. However for more complicated technical matters farmers have a preference for first hand, or specialised sources of information such as extension experts or farmer call centres. Agricultural and rural extension services have to support farmers through policy advice, technical support, information on projects/programmes, studies and workshops. Among the different methods of extension that have been tested, the farmers' field school model has been accepted as a good methodology due to its participatory features.

81. In many countries either extension services have been weakened, and often no longer exist or face many challenges. Several analyses and assessments have revealed serious limitations in planning and financial management of agricultural research including in the organization and management of the research institutions and in technology transfer strategies. There is wide dissatisfaction among stakeholders especially farmers with the public systems which is perceived to be too outdated to respond to contemporary changes like globalization, decentralization and revolutions in information technology. Similarly, extension systems are often under-resourced and use outdated service provision approaches and extension methods. Success is hampered by inappropriate material, declining budgets for field activities, and inadequately skilled and poorly motivated staff. It is important that skill development of extension services workers is given a top priority if the gains of research and innovations are to reach field application.

82. ICID network would provide technical support on the latest innovations available in the agriculture water domain to the many non-governmental entities that are engaged in providing various kinds of services in the rural areas and are increasingly occupying the vacant space to provide excellent opportunities for covering the last mile and help in the outreach into rural communities.

Goal 6: Facilitate capacity development

83. The second green revolution will likely be centered on the farmers in Africa including introduction of high yield variety seeds, expansion of irrigation systems and services, and improved access to markets. A widespread lack of capacity is identified as a common binding constraint to the development of productive and viable irrigated systems. Africa will need to create a large contingent of agricultural scientists, irrigation engineers, and extension service workers to support this effort. Capacity development must be linked to the overall goal of the sector and serve the purpose of the ultimate beneficiaries – the irrigated-agriculture community. There is need for systematic capacity development of institutions and individual in terms of developing enabling environment, and supporting policy formulation.

84. Finding solutions for smallholder farmers means finding solutions that engage one-third of humanity in addressing food security, climate, biodiversity conservation and rural employment challenges. These smallholder farmers in Africa and parts of Asia need training, better seeds, improved tools and access to markets and financial resources. Responding to these needs will have a measurable output in the form of increased yields.

85. Given the rapidly changing development scenario, climatic scenario and the exponential growth in technology, coping with these fast changes is a tough proposition. The in-service professionals have to be kept updated with the rapid technological developments. There is need for greater sharing of experiences and tools particularly related to agricultural, social, economic and environmental aspects. Since irrigation and drainage are not being favoured as academic topics in many educational organizations due to lack of interest from young generation so there is need to promote agricultural water management, irrigation and drainage, flood control, and integrated water resource management in general, as topics of interest and prospect in all academic institution. Efforts shall be to cover all dimensions of AWM, including engineering, agriculture, economic, social and environmental sciences. Indeed, a generational gap in trained experts in those disciplines would lead to major issues in managing water resources in close future, as well as in solving many current challenges. ICID will need to take this challenge of training and fostering young professionals and promoting irrigation and drainage, AWM and IWRM as relevant academic topics. Also, capacity building, academic curricula, and continuous training of professionals are essential elements of current and future sound agricultural water management.

86. ICID would work towards training and fostering young professionals, continuous training of professionals, promoting irrigation and drainage as relevant academic topics in education and training within the context of IWRM, and will try and foster closer connections with various stakeholders including farmers through national committees.

5. REALISING THE VISION

87. Key to realising the vision in any network organization lies in conveying the vision among all the network members, identifying the user and stakeholders' needs, identifying various tools and means to achieve the network's goals. The challenge of implementing Vision 2030 is to communicate the Vision among all the stakeholders. This will be done starting from the IEC meeting in 2015 and presentations of Vision 2030 will be scheduled at all work body meetings.

88. Implementing Vision 2030 will depend on voluntary contribution from the experts and member countries. ICID will make volunteerism attractive by offering incentives and awards for assistance to the implementation of Vision 2030.

89. In order to realize the vision the network needs to have a transparent structure of the organisation. The second challenge is therefore to stimulate the work bodies to align their mandates with the goals of Vision 2030. Once the vision and mission is adopted, the present structure and organisation will have to be re-visited. At the IEC 2016 a new structure for implementing Vision 2030 would be presented.

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COMMENTS RECEIVED FROM NCS

| Sr. No. | Comments | Response |
|---------------|--|--|
| PANCID | | |
| 1. | In the wake of emerging water stress in the coming times, water and soil Salinization is expected. It will be a major threat to agriculture production. Increasing surface salinity is especially expected and also currently being observed in areas with reduced surface water availability. Therefore, the point may be added accordingly. (Page 10: Para 27) | Incorporated. |
| 2. | Equity of canal water distribution is still an issue in developing countries. Although it seems to be already included in the 'improved governance' mentioned in the second last sentence (page 11). However, it is better to mention the equity issue specifically for its further improvement. (Page 10-11: Para 30) | Incorporated |
| 3. | Working and contribution by all the national committees (NCs) is not comparable or in other words some of the NCs are doing better than the others. Therefore, to enhance the contributions/role-playing by respective NCs at national level, some model work frame needs to be developed by the ICID central office that may need to be followed during each year. (Page 13: Para 43) | Will be factored while preparing the action plan |
| 4. | Equitable distribution of irrigation water may be included here. (Page 18: foot note 1) | Incorporated |
| 5. | Transboundary water issues may also be important, may be included or at least mentioned in ICID Vision. | For the Commission to ponder whether we should focus our activities on this topic. |
| 6. | There is relatively a big gap in research and its implementation, especially in developing countries. The NCs need to focus on these issues with the help of ICID. | Will be factored while preparing the action plan |
| JNCID | | |
| 7. | <p>The underlined words express the fact only partially, because considerable parts of East and South-East Asia also lie on Monsoon, Tropical humid and so forth. So we would like you to correct it to;</p> <p>Sustainability of irrigation and drainage services in the Asia and the Pacific region to support high density of population is essential to meet the basic need for access to food and safe water.</p> <p><u>Large parts of the region lie in arid, semi-arid, monsoon, tropical humid climatic zones and so forth, and are subjected to frequent climate extremes, droughts and flood events.</u> (Para 27)</p> | Incorporated |
| 8. | 62 In order to realize the vision ICID will set clear organisational goals for the network. <u>In addition, the organizational goals of the international network enables the national committees to reconfirm their own national goals, or to establish specific goals at the national level in order to address the specific national needs.</u> | Incorporated |

| Sr. No. | Comments | Response |
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| SLNCID | | |
| 9. | Appreciated the Document and is in agreement with the Document. | No comments. |
| IRNCID | | |
| 10. | As our final goal would be to transfer from " vision to action ", in addition to the vision, an action plan should be also prepared. This action plan should have specific indices so that the performance could be evaluated in a defined period. A similar practice has been carried out by the World Water Council in evaluating its action plan by defining indices and I would suggest this to be carried out for ICID Vision as well. My suggestion is to include a short para on this issue within the ICID 2030 vision. | Incorporated |
| 11. | A permanent Committee within ICID WGs should be established to follow up implementing the Vision and this should be clearly defined within this document. | Will be factored while preparing the action plan |
| 12. | The text should be somehow simplified making it easier for all national committees to understand and follow. | Will make efforts while editing the document. |
| 13. | Irrigation and Drainage is not solely an engineering issue. It also encompasses environmental, social, economic, livelihood and other non-structural measures. It should be mentioned that the vision is to give priority to non-structural measures in most cases to decrease the adverse environmental and socio-economic effects of the projects, unless it is absolutely necessary. | Will be factored while preparing the action plan. It is premature to set priorities or methodologies in this document. |
| 14. | The role of local communities, stakeholders and beneficiaries in agricultural development be emphasized. | Adequately covered under Chapter 3. |
| 15. | The term "Rural Agriculture" should be substituted by "Rural and Commercial Agriculture". We, as an international organization should not disregard countries and continents such as Canada, US, Europe and Australia which have more commercial agriculture compared to rural ones. | Rural agriculture is not used in the document. The term 'Agriculture' includes commercial agriculture. Rural development has been emphasized. |
| 16. | In case ICID intends to release another document under the title of "Mission", paragraphs related to mission should be left out; otherwise I suggest the title of the document be substituted by "Vision and Mission ICID 2030". | The title of the final document is open for discussions. |
| 17. | Training and extension merits to be more emphasized. ICID should outreach its findings to the farmers and beneficiaries. The ways and means should be discussed and selected. | Please see 'Goal 5'. Ways and means will be incorporated in the action plan. |
| 18. | The need for further researches and studies on rain fed agriculture in global warming and climate change era is inevitable. This could explicitly be mentioned in the document and the ways and means must be sought. | Ways and means will be incorporated in the action plan. |
| 19. | It could be anticipated that more attention should be paid to supplementary irrigation in the near future because of global warming and climate change ahead. | Ways and means will be incorporated in the action plan. |
| 20. | More attention should be paid to drainage water quantity as well as its quality for the sake of environmental crisis. It should be | Ways and means will be incorporated in the action plan. |

| Sr. No. | Comments | Response |
|--------------|---|---|
| | encouraged that countries pass required legislations and enact regulations regarding this issue. | |
| 21. | Establishment of community networks should be encouraged to guide farmers when to irrigate. No doubt that computers and mobile phones will be more spread in the next 15 years. | Ways and means will be incorporated in the action plan. |
| 22. | More emphasis should be given to transfer of operation and maintenance of the networks to the beneficiaries and end users. | Ways and means will be incorporated in the action plan. |
| 23. | Improving <u>Water Use Efficiency</u> , WUE, means lesser water to be used for one kilogram of yield. Encouraging increasing the WUE helps to bring in mind the comparative advantage of a crop to be grown, saving water and increasing the irrigation efficiency as well as the virtual water. This also helps policy makers to consider their cropping pattern in order to save more water. I suggest bringing this in our vision, though the issue is touched here and there in the document. | See Goal 1, para 64, 65 |
| 24. | Because of the climate change it would perhaps be desirable to consider Flood warning and Drought warning issues in the vision. | Will be factored while preparing the action plan |
| 25. | Enough attention is not paid to flood control in the document. I suggest that the weight of flood control in the vision more or less should be the same as it is given in ICID charter. | Will be factored while preparing the action plan |
| 26. | High energy consumptive irrigation systems might not be desirable in future as it is nowadays. The vision of ICID should perhaps be to encourage low pressure systems e.g. low pressure sprinkles. The use of green energy also should be encouraged. | Ways and means will be incorporated in the action plan. See also para 22. |
| 27. | Most data in the document refers to year 2050. It would be better to use data for the year 2030 instead when possible. | The data is taken from the available published documents. Moreover, the use of date is only indicative. |
| 28. | Not sure whether to touch the issue of water diplomacy. This, however, would be a major issue in the coming years..... Also contribution to common management of trans-boundary groundwater resources..... Adopting strategies and promoting the participation in international cooperation to solve water sector issues among neighbouring countries | For the Commission to ponder whether we should focus our activities on this topic. |
| 29. | Develop collaborative models in preserving the surface and subsurface water resources | Will be factored while preparing the action plan |
| 30. | Access to food regardless of political issues | For the Commission to ponder. |
| 31. | Active participation of all people and stakeholders in Water resources management | See Chapter 3. |
| USCID | | |
| 32. | In paragraph 12, they should reiterate that the re-organization they are talking about will be outlined in the yet-to-be-developed Action Plan. | Incorporated. |

| Sr. No. | Comments | Response |
|---------|--|--|
| 33. | The first sentence of paragraph 49 discusses the vision of ICID, but I think in this paragraph the word should be “mission” instead of “vision” (because they are discussion the mission and not the vision in this paragraph). | Not clear |
| 34. | In the last section of the document (Realising the Vision), they discuss what needs to be done in the future, but they make no mention of the action plan (discussed in paragraph 9). If paragraph 9 states that the next phase of this work would be to develop an action plan, then realizing the vision should also discuss that same action plan. | Incorporated. |
| 35. | The term “more crop per drop” is a slang term that does not belong in this document. Another apparent slang term shows up in paragraph 82 where they talk about providing services in rural areas and “covering the last mile”. I can guess what they mean by that, but they should not be using that slang in this document. | This is an accepted term in ICID parlance, though not scientifically defined. |
| 36. | There isn’t anything on the environment other than a few odd comments here and there. This should be expanded on. | Noted and duly incorporated. |
| 37. | They also throw out terms that I am not very familiar with like the ‘North-South technology divide” and the “first Green Revolution”. Another term they throw out without defining is “food-water-energy nexus” (which to me sounds more like a buzz word that something that is actually meaningful). They should not assume the reader will know what these terms are. They should define these terms. | These terms are generally understood, but efforts have been made to bring in references. |
| 38. | While some of the numbers and statements are backed up with references, there are a number that are not. For example, in paragraph 21, they say that more than half of irrigated agriculture is depended on groundwater but do not provide a reference on where that figure came from. Another example is in paragraph 30, which makes statements like “only 5% of Africa’s cultivated land is irrigated and less than 10% of hydropower potential is utilized for electricity generation” with no reference to support those numbers. | Noted |



ICID•CIID

INTERNATIONAL COMMISSION ON IRRIGATION AND DRAINAGE

Vision 2030

[WORK IN PROGRESS]

DRAFT Version 3.0 Dated 03/10/2015

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(To be completed)

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Foreword

By President

(To be inserted after the document finalized)

Preface

By Secretary General

(To be completed)

President Dr Saeed Nairizi, in his very first meeting with the Secretary General in Marseilles, decided to establish a Consultative Group (CG) to prepare an ICID Vision 2030 in view of the fast changing development scenario and the role that ICID could play as a network of agriculture water management professionals.

The CG Chaired by Dr Huseyin Gundogdu, Chairman of the PCSO with VPH Dr Wilhem Vlotman (Australia), Dr Sylvain Perret (France), Mr Ian Makin (UK), Dr Prof Charlotte de Fraiture (Netherland), as its members and Secretary General was established in 2015. CG organized two web-meetings where it was decided as a first step to get inputs from the National Committees and voluntary experts participating in the activities of the ICID network. A questionnaire was prepared and circulated among the NCs and the voluntary experts involved in ICID activities. Feedback received on behalf of 8 NCs and from 59 experts was considered by CG while formulating the strategy.

The Document, being inspired by the imperatives of post 2015 global development agenda takes into account the political process underway to arrive at the globally acceptable Sustainable Development Goals yet to be adopted by the UN General Assembly later in September 2015. The document also takes into account various reports and documents prepared in the field of agriculture, food security, climate and water by various international organizations.

The document also includes the inputs provided to the President and Secretary General during their discussions with various NC experts and policy makers in the countries that were visited by them during earlier half of this year which include among others the NCs of Korea, Russia, Turkey, Tajikistan and China. In addition President had discussions with the Ministers of Tajikistan, Russia and China wherein he gathered feedback on what is expected by the policy makers from ICID as an organization. The document also reflects the views and suggestions made by various office bearers and experts during the 21st and 22nd Congresses of ICID and the First World Irrigation Forum and other ICID events and the informal studies taken on strength and weaknesses of the organization.

The document in its present form is intended to serve as a starting point for discussions among ICID constituents and its partner and is expected to be finalized after incorporating the views of all stakeholders.

1. INTRODUCTION

1.1. Background

1. *Water is the key resource. It is fundamental to all development processes and nurtures the three pillars of sustainable development – economic, social and environmental. Water resources management, and the essential services water delivers, constitute the key ingredients essential for achieving poverty reduction; maintain inclusive growth, public health, food security; providing livelihoods for a life of dignity for all and sustaining long-lasting harmony with Earth's essential ecosystems.*

2. *International Commission on Irrigation and Drainage (ICID) established in 1950 is the only global professional irrigation and drainage network, which strives to bring together various stakeholders in the irrigation and drainage sector to promote sustainable management of water for agriculture worldwide. It provides a unique platform for the exchange of knowledge and information related to irrigation, drainage and flood management and promotes its objectives through its network of professionals that constitute National Committees in member countries, like-minded international organizations, private companies, and institutional and individual members. ICID has actively contributed to the first Green Revolution and helped make it successful by promoting research, development, and technology transfer to developing countries of Asia and Africa to a limited extent.*

3. *Given the global changes taking place within the overall development scenario through demographics, climate change and limiting natural resources, agriculture water management has to adapt to be sustainable in future in order to ensure water security, food security and sustainable rural development.*

1.2. Purpose of the document

4. *This document presents the shared vision of the ICID network and sets out the mission of the international network of irrigation and drainage professionals. The document summarizes what the network represents and whom it intends to serve through the sustainable development paradigm over the 15 years to 2030. The document presents and reviews the role that the network is playing and is intended to trigger discussions toward an agreement among the constituents on the future role of ICID and its members.*

5. *This draft vision document is intended to generate debate and discussions that ensure the end product will be owned by all the network members and they contribute their best efforts to fulfil the vision outlines. This document will be discussed in the PCSO, the OBC and the IEC meetings. The document would then be shared with ICID international partners. Based on the various inputs, it would be revised and presented to the MB.*

1.3. Scope of the document

6. *The members of ICID have given themselves a Constitution that binds them together and sets out the mandate and area of activities of the network. Having been in existence for more than 65 years, it has followed certain traditions and practices. Although the mandate of ICID has evolved over the years, starting from a purely engineering perspective of canal irrigation to now embrace the technical, agronomic, socio-economic and environmental complexities of irrigation, drainage and flood management issues within the Integrated Water Resources Management approach. To date the Commission has adapted to developing situations rather than setting forward looking goals. The Commission now presents a vision for the next 15 years that will help address the new sustainable development regime adopted by the United Nations, General Assembly by setting Sustainable Development Goals (SDGs).*

7. *As an institution that is largely dependent on the voluntary cooperative contribution of experts from around the world who are engaged in different aspects of irrigation and drainage, its activities are essentially an extension of the interests of the institutions where the experts work. It*

is the first time that an effort is being made to give forward looking direction to the activities of ICID in order to focus the voluntary efforts towards common goals.

8. The Vision is expected to support the National Committees, the building blocks of the network, and enable them to play a, much needed, wider role within the development community in their respective countries and regions and a more prominent role at international level.

9. The CG reviewed the terms of reference for the group and decided to undertake the assignment in two stages: (i) developing a consensus on the Vision for 2030 in the first stage and; (ii) taking a conscious decision not to present an action plan (or suggestions of the possible organisational and management re-orientation implied) but to leave development of an action plan to the second stage. Therefore this document does not present a new business plan for the network or recommendation for changes in the management that would need to be undertaken once the vision is adopted by ICID

10. This document sets out the framework of the vision of ICID with reference to present development scenarios and the emerging challenges for humanity. It summarizes changes taking place in the development environment and the growing concerns about water security, environment and food security that may emerge within the next 15 years. It takes cognition of the post 2015 sustainable development scenarios. In section 3, the document sets out the vision and identifies the ICID stakeholders and identifies their requirements.

11. The vision of

A water secure world free of poverty and hunger through sustainable rural development,

Along with the proposed new mission and goals through which the vision would be realized are described in chapter 4.

12. The new vision and goals is likely to have some impacts on the ICID Constitution including ICID Rules and regulations that guide its functioning. It may also require re-orientation of the way the National Committees are organized. Chapter 5 introduces how the Commission could proceed to adopt the vision and then work towards setting/ reviewing the mechanism and articulating activities under various goals *through an Action Plan*.

2. WATER MANAGEMENT IN A CHANGING DEVELOPMENT ENVIRONMENT

This chapter presents the post-2015 sustainable development agenda which needs to be factored in setting out the vision. Agriculture water management has to factor the water-food-energy-environment to achieve the objectives of sustainable development agenda, which is discussed briefly. The chapter also discusses briefly agriculture water management issues in various regions of the world. In the end the chapter reviews the approach that has been taken by the ICID network during the last 65 years and reasons out the need for setting a new vision for 2030.

2.1 Sustainable Development Agenda

13. *Member States of the United Nations launched a process to develop a set of sustainable development goals (SDGs) based on their agreed perspective on the “Future We Want” (1). Of particular importance for ICID, the SDGs as being negotiated (2) recognize water to be at the core of sustainable development. The SDGs highlight that water is closely linked to a number of key global challenges. The leaders have reaffirmed their commitment to the right of everyone to have access to safe, sufficient and nutritious food, consistent with the right to adequate food and the fundamental right of everyone to be free from hunger.*

14. *Interlinkages between water and sustainable development reach far beyond its social, economic and environmental dimensions. Human health, food and energy security, urbanization and industrial growth, as well as climate change, are critical challenges where policies and actions at the core of sustainable development can be strengthened (or weakened) through water. Seven out of seventeen SDGs directly influenced by Agriculture Water Management are:*

1. *End poverty in all its forms everywhere (Goal 1),*
2. *End hunger, achieve food security and improved nutrition and promote sustainable agriculture (Goal 2),*
3. *Ensure healthy lives and promote well-being for all at all ages (Goal 3),*
4. *Ensure availability and sustainable management of water and sanitation for all (Goal 6),*
5. *Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all (Goal 8),*
6. *Take urgent action to combat climate change and its impacts (Goal 13), and*
7. *Strengthen the means of implementation and revitalize the global partnership for sustainable development (Goal 17).*

15. *Post 2015 Sustainable Development Agenda stresses the importance of access by all countries to environmentally sound technologies, new knowledge, know-how and expertise and stresses the importance of co-operative action on technology innovation, research and development.*

16. *It is well recognized that there is a need to facilitate informed policy-making and decisions on sustainable development issues. In this regard, there is need to strengthen the science-policy interface. Particular emphasis is being given to the need for: (i) technology transfer to developing countries; (ii) sound governance practices; and (iii) enhanced capacity-building for sustainable development. This recognition has given rise to the call for the strengthening of institutional, technical and scientific cooperation, including North-South, South-South and triangular cooperation.*

2.2 Water, Energy and Food Interlinkages

17. *Freshwater is essential in the production of food and generation of energy. It also plays vital roles in achieving progress in all aspects of development. Demands for freshwater, food and energy will continue to increase over the coming decades to meet the needs of growing populations and economies, changing lifestyles and evolving consumption patterns. These trends will greatly amplify existing pressures on limited natural resources and on ecosystems and the services they provide. The resulting challenges will be most acute in countries undergoing accelerated transformation and rapid economic growth, or those in which a large segment of the population currently lacks access to modern services.*

18. *Major regional and global crises – of climate, poverty, hunger, health and finance – that threaten the livelihood of many, are interconnected through water and energy. These crisis have substantial impact for the three billion people living on less than US\$2.50 per day. As a result, worldwide, an estimated 768 million people remain without access to an improved source of water, 2.5 billion remain without access to improved sanitation, more than 1.3 billion people still lack access to electricity and more than 800 million people suffer from hunger and malnutrition (3). These headline figures hide the fact that it is often the same people that face multiple challenges due to lack of access to water. For example, there is evidence of a close association between diarrhoea and related waterborne diseases caused by a lack of safe drinking water and sanitation and that malnutrition and hunger increases their vulnerability.*

19. *Water is a renewable but finite resource. It is an essential ingredient in food production. However, global water demand (in terms of water withdrawals) is projected to increase by some 55% by 2050, mainly because of growing demands from manufacturing (40%), thermal electricity generation (140%) and domestic use (130%) (4). Current climate change projections show that critical changes in the temporal and spatial distribution of water resources, and the frequency and intensity of water-related disasters, rise significantly with rise in global temperatures. The temporal variability of precipitation, that forms the source of fresh water, makes any economic activity dependent on availability of freshwater more fragile and risky. As a result, freshwater availability will be increasingly strained. More than 40% of the global population is projected to be living in areas of severe water stress by 2050. With agriculture being the largest user of freshwater, it is recognized that an inability to use water wisely in agriculture will endanger water security. At the same time deterioration of wetlands worldwide is reducing the capacity of ecosystems to purify water. Adoption of adaptive management strategies in agriculture would help respond effectively to these changing and uncertain conditions.*

20. *Global energy demand is expected to grow by more than one-third by 2035. Electricity demand is expected to grow by approximately 70% by 2035 (4). Energy production is generally water-intensive. Meeting ever-growing demands for energy will place increasing stress on freshwater resources. Since food production and delivery of water services also require energy, there is room to create synergies.*

21. *At the same time, more than half of the area of irrigated agriculture is dependent on groundwater which requires energy for pumping. Groundwater irrigation, with energy as an essential ingredient, has many advantages for farmers. These include availability of water on demand; the absence of institutional constraints and systems; and minimal variability of supply. Groundwater has contributed substantially to total irrigated agriculture, including: about 39 million ha (63 % of irrigated area) in India, 19 million ha (32 %) in China, and 17 million ha (68 %) in the USA. However, there is clear evidence that groundwater availability is diminishing, with an estimated 20% of the world's aquifers being over-exploited, some critically so. With the lowering of the groundwater tables the irrigation systems dependent on groundwater are consuming more energy. In a number of countries energy pricing policies are considered to be a major cause of this situation. Irrigation is a primary consumer of energy on farms and, despite the water saving*

benefits due to the increased efficiency of pressurised irrigation systems, conversion from surface irrigation to pressurised systems will change the pattern of on-farm energy consumption.

22. Further, increasing energy demand presents increased stress on agriculture production for bio-energy, and in turn on the land and water resources, as countries commit themselves to reduce their carbon footprints under Climate Change regimes. The food-water-energy *nexus approach*¹ recognizes these interconnectedness and the potential consequences of one sector on another (5).

2.3 Agriculture water management

23. The challenge is clear. In order to feed 9 billion people in 2050, under current market, institutional and economic features, the world must produce 40 per cent more food by 2050 and 100% more in developing countries (6). These challenges must be met with limited land and water, using less energy, fertilizer and pesticide while coping with rapid changes in many spheres. Increasing food production through sustainable use of water will, among others, require large investments in infrastructures, research and development, that are compatible with the preservation of ecosystems and are resilient to climate change. Globally, the current growth rates of agricultural water withdrawals are unsustainable. Therefore, the sector must increase its water use efficiency by reducing non-beneficial water losses and, most importantly, increase crop productivity with respect to water. Agricultural water pollution, which can worsen with increased intensification of agriculture, will need to be managed well.

24. Climate change is expected to result in increased frequency of droughts due to decreasing trends in precipitation in some areas, while others will see an increasing incidence of floods and other extreme events due to increasing trends in precipitation intensity and variability (1). This increasing variability of climate exacerbates risk and unpredictability for farmers, especially those who depend on the rain-fed agriculture and are the most vulnerable and the least able to adapt. *Large fertile lands get flooded resulting in destruction of standing crops, although productivity of such flooded lands often improves.* In order to make agriculture sector sustainable as well as profitable, it is imperative to increase the climate resilience of agriculture *through soft measures such as floods and drought warnings judiciously supplemented by structural measures*, including increasing the irrigated area without increasing water withdrawals. The conceptual and practical framework of climate-smart agriculture (7) recognizes the need for adaptation and innovation in irrigated agriculture.

25. With water being the critical resource the area of irrigated agriculture has doubled, to 300 million ha, since 1960 and has played a major role in growth of agricultural production and building resilience against food insecurity and climate change. However, these advances have eluded large parts of Africa. Irrigation, supported by drainage, is expected to play a stronger role in future. With the potential for further expansion expected to be limited to an increase of only 20 million ha by 2050 (4) greater emphasis must be given to modernization of the existing irrigation infrastructure and improved services including optimal utilization of every drop of water made available at the farm level minimizing environmental and social negative impacts of irrigation systems, and maximizing positive amenities, goods and services to societies. *Salinization of soil due to irrigation, accentuated by waterlogging caused by excess irrigation has effected large areas and affecting land productivity is a major environmental concern.*

26. The challenges at the interface of water and sustainable development vary from one region to another. Increasing resource use efficiency, reducing waste and pollution, influencing consumption patterns and choosing appropriate technologies are the main challenges facing **Europe and North America**. Maintenance of old drainage systems in the reclaimed agriculture

¹ The Nexus approach considers the different dimensions of water, energy and food equally and recognizes the interdependencies of different resource uses to develop sustainably (5A)

lands are also presenting new challenges in some of the countries. Although the region does not suffer from large precipitation variability, incidents of droughts are on the increase. Reconciling different water uses at the basin level and improving policy coherence nationally and across borders will be priorities for many years to come. Monitoring of the climate events, particularly the extremes and adoption of high-tech precision agriculture systems are some of the issues that are required to be addressed.

27. Sustainability of irrigation and drainage services in the **Asia and the Pacific** region to support high density of population is essential to meet the basic need for access to food and safe water. The climate in Asia and the Pacific region is varied. *Large parts of the region in west and south Asia experiences arid and semi-arid climate while parts of east and south-east Asia and the Pacific islands experience tropical humid climate. Despite the fact that the region is home to the Himalayas, known as the water tower of Asia, its water resources are largely dependent on the monsoon. The region is subjected to frequent climate extremes, droughts and flood events. In many parts of the region, seasonal water scarcity is increasing and monsoon shows changing patterns. The region has seen development of large irrigation infrastructure in the last fifty years which has helped create food security and fuelled growth. However the farm sizes in the region are small and the majority of farmers engage in subsistence farming. Water managers in the region are facing the challenge of providing water and sanitation for the burgeoning population; meeting water demands across multiple uses; mitigating increasing pollution loads; poor irrigation services provided through aging irrigation and drainage infrastructure; and depleting groundwater resources. Many countries in the region are faced with an aging population of irrigation farmers; the young being more attracted by urban lifestyle and industrial or commercial work opportunities. The priorities for the region lie in improving overall water governance, including groundwater management; pollution control; modernization of existing irrigation systems; improving livelihoods and attractiveness in irrigation farming; improving efficiency in water use and increasing resilience to water-related disasters*

28. Water scarcity is at the forefront of consideration of water-related challenges impeding sustainable development in the **Arab** regions. The region is characterized by unsustainable consumption and over-abstraction of surface and groundwater resources. Water and soil salinization is a chief concern, which must be addressed through innovative and adapted water abstraction and use practices. Options being adopted to enhance water supplies include water harvesting, wastewater reuse and solar energy desalination which need to be combined with micro-irrigation technologies to make efficient use of costly water and make agriculture economically viable.

29. A major priority for the **Latin America and the Caribbean** region is to build the formal institutional capacity to manage water resources and bring sustainable integration of water resources management and use into socio-economic development and poverty reduction. Further priority is required to ensure the full realization of the human right to water and sanitation in the context of the post-2015 development agenda. Possible solutions lie in making agriculture systems resilient against droughts and modernising large irrigation systems where they exist.

30. In **Africa**, which missed the benefits of the first green revolution, the aim should be to make agriculture a sustainable and vibrant driver of national economies and create the right capacities to usher in the 2nd Green Revolution. Currently only 5% of the Africa's potential water resources are developed and average per capita storage is 200 m³ (compared to 6,000 m³ in North America). Only 5% of Africa's cultivated land is irrigated and less than 10% of hydropower potential is utilized for electricity generation. Smallholders with land holdings of less than 1 ha have no guaranteed access to water or to support services and training. In sub-Saharan Africa, the irrigation sector is largely based on, informally developed schemes, which are scattered over vast areas of land and around urban centres. There is need for both infrastructure as well as human capacity development. Modernization and improved governance in existing schemes are

also required in most countries. Especially, land and water institutions and access regulations need be reviewed, revised, strengthened, and/or clarified, depending on national context.

2.4 ICID and Agriculture Water Management

31. The **Mission** of the International Commission on Irrigation and Drainage (8) is to stimulate and promote the development of the arts, sciences and techniques of engineering, agriculture, economics, ecology and social science in managing water and land resources for irrigation, drainage, flood management and river training applications, including research and development and capacity building, adopting comprehensive approaches and up-to-date techniques for sustainable agriculture in the world.

32. This mission as outlined in ICID Constitution(8) is pursued by fulfilling the following objectives:

- (a) Planning, financing, socio-economic and environmental aspects of irrigation, drainage, and undertakings for the reclamation and improvement of lands as well as the design, construction and operation of appurtenant engineering works including dams, reservoirs, canals, drains and other related infrastructure for storage, conveyance, distribution, collection and disposal of water.
- (b) Planning, financing, socio-economic and environmental aspects of schemes for river training and behaviour, flood management and protection against sea water intrusion of agricultural lands as well as the design, construction and operation of appurtenant works, except such matters as relate to the design and construction of large dams, navigation works and basic hydrology;
- (c) Research and development, training and capacity building in areas related to basic and applied science, technology, management, design, operation and maintenance of irrigation, drainage, flood management, river training improvement and land reclamation works.
- (d) Facilitation of international inputs required by the developing countries, particularly the low income countries lagging in the development of irrigation and drainage;
- (e) Promotion of the development and systematic management of sustainable irrigation and drainage systems;
- (f) Pooling of international knowledge on topics related to irrigation, drainage and flood management and making this knowledge available worldwide;
- (g) Addressing international problems and challenges posed by irrigation, drainage and flood management works and promoting evolution of suitable remedial measures;
- (h) Promoting savings in use of water for agriculture;
- (i) Promoting equity including gender equity between users and beneficiaries of irrigation, drainage and flood management systems; and
- (j) Promotion, preservation and improvement of soil and water quality of irrigated lands.

33. ICID believes that food security at various levels: household, local, regional, national and global, requires assured and stable agriculture production. ICID is committed to enhance the world wide supply of food and fibre which can come mainly from irrigated agriculture. ICID is dedicated to enhancing the food production worldwide by improving the productivity of production factors in irrigated lands, i.e. water, labour, land, equipment, agrochemicals etc. through better water and land management. ICID believes that food production should be enhanced in ways that do not compromise the environment, now and for generations to come.

34. Irrigation water systems, at the local and national levels, are designed to fill the gap between supply and demand for water at various spatial and temporal scales. They ensure availability of water in rural areas for agriculture and other uses. These systems make agriculture more resilient to the vagaries of climate. The more assured production that results from irrigated agriculture encourages re-investment in the sector and generates surpluses.

35. *Irrigation is often a multifaceted endeavour that requires interaction among various sectors, institutions and users. Sustainable use and efficient management of irrigation systems requires understanding and cooperation among these multiple actors. ICID works towards creating a synergy between agricultural and water policies, improvement of publicly operated irrigation schemes, advocating for increased investment both from public and private sources for expansion of irrigated area, and the modernization of existing infrastructure. It supports knowledge sharing concerning all aspects of agriculture water management including collation of irrigation statistics; data and information exchange; sharing of successful management strategies, best practices and knowledge. It supports and encourages multiple-use and the promotion of amenities, good and services provided by irrigation systems.*

36. *The cooperation mechanisms used by ICID network range from simple exchange of information through its annual meetings where practitioners, researchers and planners from both developed and developing countries participate, to collating latest research and innovations through its Journal on Irrigation and Drainage, developing guidance material and their dissemination through various channels. ICID organizes triennial World Irrigation and Drainage Congresses, annual Regional Conferences, and international drainage workshop and micro irrigation conference to address and discuss issues of global or regional importance. ICID at its triennial Congress deliberates on certain specific questions relating to irrigation and drainage.*

37. *Irrigation systems and professionals play an increasingly crucial role in eradication of rural poverty by creating sustainable livelihoods for the majority of rural population, particularly in developing countries, and by supporting healthy living environments. Irrigation and drainage is an important contributor to sustainable rural development. It is therefore appropriate for ICID, to realign its vision and dedicate itself to a mission that supports **UN Sustainable Development Agenda 2030**.*

38. *The ICID vision for 2030 is of **“A water secure world free of poverty and hunger through sustainable rural development”**.*

3 STAKEHOLDERS AND USERS

For a network to be relevant and effective, it has to clearly recognize the constituency it intends to serve, their needs, strengths and weaknesses and at the same recognize the partners with whom it has to work with and develop synergy to achieve the desired objectives. This chapter briefly discusses all such stakeholders that influence agriculture water management, can be partners in achieving objectives and direct and indirect users of the services provided by ICID.

39 Irrigation water delivery is a service to users and its quality and reliability an essential input for stable production and the adoption of advanced farm practices. Expansion and modernisation of infrastructure and adoption of technological innovations have to be accompanied by informed policies, prudent financial management, appropriate institutional reorientation and transparent governance (6). ICID recognizes the close nexus of water-energy-food and that engaging the respective stakeholders and users from these sectors is a pre-requisite for understanding their needs when articulating a vision for agriculture water management.

40 A number of disparate stakeholders have an interest in the way agriculture water management (AWM) policies are formulated and implemented. They include the members of the ICID network, the users they serve, and the groups that provide variety of services to support AWM. Various development partners at the regional and international levels that have similar goals and objectives also influence the way AWM goals are set and achieved.

41 The main stakeholders of ICID may be categorised as: primary stakeholders – the national committees, irrigation and drainage professionals and farmers that constitute the core stakeholders; secondary stakeholders – policy makers and the industry who have the responsibility to facilitate and also influence the activities in agriculture water sector; and the tertiary or peripheral stakeholders - the society at large.

National Committees

42 National Committees are the core stakeholders of ICID. They represent various stakeholders, in their respective countries, engaged in different facets of agriculture water management. Ideally, they include experts from water resources, irrigation, agriculture, rural development, hydro-power, environment, and flood management sectors and theme of finance and economics. In the majority of countries the National Committees (NCs) are hosted within one of the related government departments dealing with the above subjects and include representatives from research institutions, universities, private sector companies, and in some cases farmers' groups.

43 The new vision is expected to boost the role of NCs in implementing the sustainable development agenda within their countries. Particularly with respect to meeting the goals of poverty alleviation, food security and sustainable water management and other related SDGs in the context of Climate Change. NCs need to be strengthened and supported to serve as the common platform for various AWM stakeholders. They would have to be supported through sharing of international experiences and best practices, knowledge and tool acquisition to enable them to fulfil their obligations towards the country. Particularly, they would have to be supported with tools that are the products of multi-disciplinary efforts and strengthening of their capacities to facilitate interdisciplinary collaboration. These tools would have to be adapted by the NCs to suite the given socio-economic situation and address the required inputs for formulating and implementing agriculture and water policy issues in the country. The NCs would be supported through institutional and individual capacity development and information sharing specific to their needs.

Irrigation and Drainage Professionals

44 As the only international network in irrigation and drainage sector professionals, ICID has the responsibility to satisfy the professional and intellectual needs of the members directly engaged in irrigation and drainage activities. The large public sector irrigation and drainage departments in Asian countries and also in Africa, often suffer from ill-maintained infrastructure along with demoralised irrigation and drainage cadres and outdated professional skills. The sector also suffers from the lack of penetration of latest science and technology tools due to variety of reasons. Also, in many countries, irrigation and drainage approaches are still confined to engineering and technical aspects, while existing and emerging challenges call for a more open, integrated, multidisciplinary approach. The sector as a result is lacking in new research and innovation ideas as well as resources. Given the complexity of development process, irrigation and drainage professionals need exposure to the economic, social, environmental and other disciplines that influence agricultural water management.

45 At the same time the sector is challenged by the lack of interest from the young professionals as they find the career in the sector uninteresting with little growth potential. This lack of interest in the sector among the young generation has resulted in the closure of irrigation and drainage departments in academic institutions around the world. There is need to make careers in irrigation and drainage sector interesting and challenging. Information has to reach them at their finger press, which they are used to in the era of social media.

Farmers

46 Farmers are the most important user of services that the network provides through its National Committees, and as such constitute important stakeholders. They range from a subsistence farmer typically holding 0.5 ha of land to a commercial farmer holding up to 100 of ha of farms with varying needs and requirements. Small-scale family farming remains the predominant form of farming worldwide (88% of all farms; 40% of global labour force; 80% in West Africa), and the reality is that such farming systems are currently feeding the world, and are likely to continue doing so, provided appropriate technological, policy and financial measures are taken.

47 Like any other enterprise, commercial farms are driven by financial results. The services provided by irrigation systems should reduce the financial risks and increase profitability for farmers. Driven by practices rooted in tradition, introduction of new tools and processes are likely to find resistance, if not adequately articulated and demonstrated. Introduction of new techniques, need to be governed by the perspective and interests of farmers. Larger societal and global sustainability discourse, therefore, has to pass through the prism of the economics of their enterprise.

48 Small-scale family farming are not only driven by profit, but also by food security concerns, the quality of living standards, the benefits of social capital (solidarity, trust, low transaction costs, collective action in irrigation management), the attractiveness of rural life style. They are the main suppliers of most of the world's food markets, and have many other virtues: knowledge of ecosystems, sustainable management practices, contribution to local food security and regional development, and capacity to provide local employment. They are also typically using water and irrigation infrastructure in multiple ways, for multiple purposes (sanitation, bathing, drinking and other agro-based activities). In irrigation systems, such traits are crucial and must be considered when promoting new sustainable technologies or practices. In addition to providing water for multiple uses medium to large irrigation systems also serve as the means of communication and thereby serve as vehicle for overall rural development.

Policy Makers

49 Policy makers, i.e., the political leadership, planners, and bureaucrats have the responsibility to ensure the provision of the basic necessities to its citizens within the framework of given natural, financial and human resources and institutional framework (legislation, organisations, and regulations). Despite the recognition of the close linkages between different development sectors the policy making often remains compartmentalized. Experts who understand the consequences of these linkages have the duty to create awareness among and convince policy makers of multi-disciplinary interlinkages so as to facilitate factoring of these interdependencies in the decision making process.

50 In order to support policy makers in taking right and most appropriate decisions it is essential that the professionals are able to develop and present different development scenarios, explaining the socio-economic impacts of alternate choices. At the same time the practitioners need to translate the results of such studies from the technical terminology to the language of development and human impacts which is easily understood by non-technical professionals as well as common man. As such the ICID Vision 2030 has to respond to the requirements of policy makers at the national, regional and international level which constitute an important target audience for the outputs of the ICID network.

Irrigation and drainage industry

51 The irrigation industry includes public sector agencies, private consultancy companies, individual consultants, contractors, manufacturers, and service providers. The industry in today's global marketplace plays an important role in the transfer of technology. They have to be sensitized to look beyond the short term goals of project implementation while recommending technologies, particularly when working in the developing countries. While selecting and implementing new technologies the solutions adopted need to be sustainable and will, in general, need to include capacity development component.

52 The rural development workers have to cater to a plethora of complex rural development issues that relate to different disciplines. These complexities have to be brought to the knowledge of common stakeholders in their own language. As these development workers act as true interlocutors and facilitators at the ground level it would be appropriate to target them for delivering the message effectively. Institutions engaged in agriculture as well as water related research have the onus of targeting the needs of small holders and subsistence farmers.

Research and the academia

53 Multidisciplinary research has a special role to play in understanding the complexity of issues in the agricultural water management sector. In all countries, ICID at large, and country committee members specifically must play a linking role in promoting back and forth communication between practitioners and farmers on one hand, and researchers on the other hand. Indeed, orienting national and international research efforts towards addressing immediate burning issues, understanding on-going transition processes, and solving problems must be a priority. Similarly, readily available research results and state-of-the-art diagnoses, methodologies and solutions must be made known and available to practitioners and policy-makers. ICID is committed to promote, foster and support such two-way communication.

Society at large

54 Being the ultimate consumer of agriculture produce, and as a competing water consumer in various forms, society at large is impacted by the way the network serves farmers to produce more nutritious food and fibre with minimum water and without adversely impacting the environment. Under the growing water scarcity, in many parts of the world, water saving in

agriculture sector, which withdraws 70-80 percent of water, could go a long way in meeting the growing demands in other sectors. Other stakeholders in development process such as professionals and policy makers in energy, urban development, and environmental management sectors that influence consumption patterns and the quality of water that is made available for the AWM have also to be included as ICID secondary stakeholders. ICID recognizes the growing awareness of society at large on environmental and social issues related to production worldwide, and the capacity of consumers for discerning products resulting from sustainable production practices, should proper labelling or information exist. Although a challenging task with multiple stakeholders, the promotion of sustainably-produced (in social, economic and environmental terms), cheap, accessible, healthy and nutritious goods needs to be considered. ICID commits to play its role in information sharing towards larger audiences, and the general public, whenever and wherever possible.

4. THE VISION

55 *The new challenges that the world faces today and will face in the coming years call for a renewed vision for ICID. In order to fulfil ICID's obligations towards its stakeholders and users of its outputs, described in its current mission, there is need to review the ICID vision and its mission. The current review aims to identify a set of goals that would help ICID network to fulfil its mandate. The new proposed vision, mission, the core values and the goals are described in this section.*

4.1 Vision

56 *Vision of ICID is proposed as a:*

“Water secure world free of poverty and hunger through sustainable rural development.”

57 *We believe that through prudent agriculture water management agriculture production can be made more resilient resulting in reducing the incidence of hunger, ensuring food security, improving rural livelihoods and maintaining ecosystem services. Irrigation and drainage infrastructure, while ensuring availability of water for agriculture, also serve multiple roles such as ensuring the provision of safe drinking water and sanitation thereby improving the health and productivity of the rural population. At the same time irrigation infrastructures also serve as means of communication and help farmers' in easy access to markets for inputs and selling agriculture produce. As such irrigation and drainage infrastructure serves the overall rural development directly contributing to five of the seventeen SDGs and indirectly influencing another seven SDGs (1, 2, 3, 6, 8, 13 and 17).*

4.2 Mission

58 *The proposed mission of ICID is to:*

“Facilitate prudent agriculture water management by encouraging interdisciplinary approaches to irrigation and drainage management.”

59 *The vision of ICID will be achieved by generating new knowledge, compiling and collating information, sharing experiences and good practices and disseminating the new knowledge to the relevant stakeholders. Prudent AWM is not confined to the efficient use of water in agriculture, but is concerned with making optimal use of water diverted for agriculture for the overall benefit of the rural community and preserving the quality of return flows to receiving water bodies.*

4.3 Core Values

60 *The core values of ICID are defined by the:*

- *non-profit objectives of the network;*
- *voluntary contribution of time and monetary resources by its members and experts;*
and
- *sharing of knowledge and experiences among stakeholders.*

61 *These Core values are underscored by the empathy of the networks members towards those suffering hunger and poverty.*

4.4 Goals

62 *In order to realize the vision ICID will set clear organisational goals for the network. **The organisational goals of the international network will enable the national committees to re-confirm or re-orient their national goals or will help establish specific goals at the national level, addressing the specific national needs.** ICID Central Office will continue to play a pivotal role in coordination and management of the network and will facilitate the network in realisation of organizational as well as national level goals. The organizational level goals would be*

1. *Enable more crop per drop*

2. *Be a catalyst for change in policies and practices*
3. *Facilitate technology exchange*
4. *Enable cross disciplinary dialogue*
5. *Support development of tools to convert research and innovation into field implementation*
6. *Facilitate capacity development*

Goal 1: *Enable more crop per drop*

63 *It is well recognized that agriculture is the sector where the potential for water productivity gains is highest. All sources of water (rain, surface water, groundwater and wastewater) are important to achieve food security. As regional water-supply pressures intensify, agriculture will rely increasingly on improved water management to sustain productivity and increase the economic value of irrigation water. Efficient irrigation systems and water management practices can help maintain farm profitability. Efficient water management also reduces the impact of irrigated production on offsite water quantity and quality.*

64 *The technical solutions to enable production of 'more crop per drop' exist². Measures to increase water-use efficiency may not be compatible with environmental goals such as maintaining minimum environmental flows. Meanwhile, opportunities for improved water management have expanded with advances in irrigation equipment and practices, lower technology costs, and expanded information resources. Reduction in consumptive use of water in agriculture has to be prioritized to respond to the needs in other sectors. Resource conserving technologies have demonstrated potential to increase productivity of land, labour, capital and inputs.*

65 *Additional investments are needed to increase irrigation efficiency at the field, farm and irrigation-area scales to fill the supply and demand gap and enable adaptation to increasing climate variability and change. But investments and political will are often lacking to improve rain fed production and modernize irrigation systems.*

66 *ICID network would advocate with the national governments and funding agencies to make strategic choices that favour production of more crop per drop contributing to sustainable agricultural water management.*

Goal 2: *Be a catalyst for a change in policies and practices*

67 *Water policy is inherently difficult as it involves trade-offs between the benefits and costs of: alternative uses, different sectors, equitable distribution of resources and required institutional arrangements. Governing policies need regular revision in view of changing demand patterns and technological advances, and as social experience with water management arrangements progresses. Developing policies for managing water systems for human needs in such a complex environment is difficult, slow and very costly. At the same time the correct policy, institutions and market incentives are essential to increase water-use productivity in agriculture. For example, water policy instruments such as energy pricing, water entitlements and transfer provisions, and eco-conservation programs provide incentives for improved management of water supplies at the farm level.*

68 *It must be acknowledged that the benefits of changes in water-resource management are difficult to measure because of the common property nature of water resources. These are*

² Some of the areas which need to be considered in this direction are adoption of improved agronomical, agricultural and water management practices; institutional and organisational reforms; participatory approach- PIM, IMT **for equitable and efficient distribution of water**; use of modern irrigation techniques and technology etc.

particularly important in the case of competing inter-sectoral demands, or in large river basins that cross jurisdictions.

69 *Decision-makers need planning tools to secure water allocation and distribution among various uses, users and regions. It is important that the policy makers are provided the appropriate tools that are developed on sound scientific principles which are also suitable for the given socio-economic conditions. They need the right tools to evaluate various alternative AWM strategies.*

70 *Models can now establish multiple policy scenarios with alternative assumptions about future developments based on a variety of economic, demographic, hydrological, and technological trends. This enables a broad range of "what if" questions to be carried out using modelling approaches and procedures. Mathematical models for simulation and optimization are proven examples of such tools. The outputs from such studies can be used for negotiations and as the basis for agreements among administrations and sectors for access to water resources.*

71 *The network would provide guidance to water policy analysts on experiences with the latest tools and modelling principals for simulating development scenarios to generate knowledge which can serve as catalyst for policy changes.*

Goal 3: Facilitate technology exchange

72 *Current irrigation systems and services are generally characterised by low water use efficiencies. Irrigated agriculture is under considerable pressure to adopt practices and methods to increase efficiency of water use. New irrigation technologies that are becoming popular result in either increased productivity or increased water availability for alternative uses (e.g. environmental flows to maintain ecosystem services) or both. Pressurized irrigation technologies are slowly penetrating the North-South technology divide. They have helped to increase water use efficiencies and yields and reducing labour requirements in irrigation.*

73 *Despite the fact that irrigation has served as one of the pillars of the technology oriented Green Revolution during the 70-90s, irrigated agriculture is one area where the latest developments in science and technology have not penetrated adequately, particularly in developing countries. Use of remote sensing and precision application of water and fertilizers, supervisory control and data acquisition (SCADA) system application, extended weather predictions for assessing seasonal water availability, drought monitoring and predictions and their use in water releases from reservoirs for optimum utilization have failed to find widespread application in developing countries although these are in use in more advanced economies for some time now.*

74 *One reason for the lack of technology uptake lies in the fact that most of farmland holdings especially in Asia and Africa are very small and the farmers neither have the economic incentives or capacity and motivation to use these technologies. In some situations these technologies are not available due to lack of institutional or financial capacity. Some of these new irrigation technologies will change the patterns of on-farm energy consumption and may potentially increase greenhouse gas emissions with environmental consequences. A life cycle assessment approach to the positive and negative impacts of a given approach needs to be undertaken. The initial capital costs limits the rate of adoption of new technologies, while operating costs can mean that the overall financial position of farmers is compromised.*

75 *ICID would work towards exchange of new technologies for sustainable AWM, facilitate analysis of trade-offs to maintain the economic efficiency of agricultural production and minimising the adverse environmental impacts.*

Goal 4: Enable cross disciplinary dialogue

76 Global climate change is no longer a 'what if' exercise and no investment can ignore information regarding the predicted dimensions of climate change risks and their potential societal impacts. At the same time the economic evaluation of various options for achieving sustainable agriculture water management strongly depends on how the saved water will be used. Will the water be used to: (i) increase the crop area, (ii) increase the intensity of growing high value cash crops, (iii) trade the saved water temporarily or permanently through a water market, (iv) or sold to other users. These evaluations and final decision require assessment of industry-wide trade-offs between water savings, energy consumption and economic returns associated with irrigation technology transformation.

77 At the same time, concerns regarding equity in development, demands for greater rural producer empowerment, developments in biotechnology and biosafety, the growing importance of agro-food chains, and the changes in information and communication technologies combine to make the decision making more complex and involved.

78 For sustainable development analysis of a number of options is required from various perspectives that calls for contribution of experts from different disciplines speaking different technical languages with their own terminology. Ultimately the decision making process has to be based on science based information and knowledge from different disciplines and a dialogue between various interest groups – users and uses. To be able to appreciate each-others' viewpoint, they have to be familiar with the simplified terminologies. At the same time the final decision on the trade-offs has to be taken by politicians, planners, bureaucrats and stakeholders: not only by the farmers but the society at large.

79 **ICID network would make available the required information in respect of irrigation, drainage and flood management to all the relevant stakeholders in the language suitable for their appreciation. Where required, platform for inter-disciplinary networking would be facilitated for dialogues between various groups.**

Goal 5: Support development of tools to extend research and innovation into field implementation

80 Success of application of research and innovations in agricultural and rural development depends on individual actions of millions of rural families, whose decisions are shaped by the information, knowledge and technologies available to them. An important question to ask is how do farmers get information? Surveys indicate that a key general source of information for farmers is other farmers. However for more complicated technical matters farmers have a preference for first hand, or specialised sources of information such as extension experts or farmer call centres. Agricultural and rural extension services have to support farmers through policy advice, technical support, information on projects/programmes, studies and workshops. Among the different methods of extension that have been tested, the farmers' field school model has been accepted as a good methodology due to its participatory features.

81 In many countries either extension services have been weakened, and often no longer exist or face many challenges. Several analyses and assessments have revealed serious limitations in planning and financial management of agricultural research including in the organization and management of the research institutions and in technology transfer strategies. There is wide dissatisfaction among stakeholders especially farmers with the public systems which is perceived to be too outdated to respond to contemporary changes like globalization, decentralization and revolutions in information technology. Similarly, extension systems are often under-resourced and use outdated service provision approaches and extension methods. Success is hampered by inappropriate material, declining budgets for field activities, and inadequately skilled and poorly

motivated staff. It is important that skill development of extension services workers is given a top priority if the gains of research and innovations are to reach field application.

82 ICID network would provide technical support on the latest innovations available in the agriculture water domain to the many non-governmental entities that are engaged in providing various kinds of services in the rural areas and are increasingly occupying the vacant space to provide excellent opportunities for covering the last mile and help in the outreach into rural communities.

Goal 6: Facilitate capacity development

83 *The second green revolution will likely be centered on the farmers in Africa including introduction of high yield variety seeds, expansion of irrigation systems and services, and improved access to markets. A widespread lack of capacity is identified as a common binding constraint to the development of productive and viable irrigated systems. Africa will need to create a large contingent of agricultural scientists, irrigation engineers, and extension service workers to support this effort. Capacity development must be linked to the overall goal of the sector and serve the purpose of the ultimate beneficiaries – the irrigated-agriculture community. There is need for systematic capacity development of institutions and individual in terms of developing enabling environment, and supporting policy formulation.*

84 *Finding solutions for smallholder farmers means finding solutions that engage one-third of humanity in addressing food security, climate, biodiversity conservation and rural employment challenges. These smallholder farmers in Africa and parts of Asia need training, better seeds, improved tools and access to markets and financial resources. Responding to these needs will have a measurable output in the form of increased yields.*

85 *Given the rapidly changing development scenario, climatic scenario and the exponential growth in technology, coping with these fast changes is a tough proposition. The in-service professionals have to be kept updated with the rapid technological developments. There is need for greater sharing of experiences and tools particularly related to agricultural, social, economic and environmental aspects. Since irrigation and drainage are not being favoured as academic topics in many educational organizations due to lack of interest from young generation so there is need to promote agricultural water management, irrigation and drainage, flood control, and integrated water resource management in general, as topics of interest and prospect in all academic institution. Efforts shall be to cover all dimensions of AWM, including engineering, agriculture, economic, social and environmental sciences. Indeed, a generational gap in trained experts in those disciplines would lead to major issues in managing water resources in close future, as well as in solving many current challenges. ICID will need to take this challenge of training and fostering young professionals and promoting irrigation and drainage, AWM and IWRM as relevant academic topics. Also, capacity building, academic curricula, and continuous training of professionals are essential elements of current and future sound agricultural water management.*

86 ICID would work towards training and fostering young professionals, continuous training of professionals, promoting irrigation and drainage as relevant academic topics in education and training within the context of IWRM, and will try and foster closer connections with various stakeholders including farmers through national committees.

5. REALISING THE VISION

87 *Key to realising the vision in any network organization lies in conveying the vision among all the network members, identifying the user and stakeholders' needs, identifying various tools and means to achieve the network's goals. The challenge of implementing Vision 2030 is to communicate the Vision among all the stakeholders. This will be done starting from the IEC meeting in 2015 and presentations of Vision 2030 will be scheduled at all work body meetings.*

88 *Implementing Vision 2030 will depend on voluntary contribution from the experts and member countries. ICID will make volunteerism attractive by offering incentives and awards for assistance to the implementation of Vision 2030.*

89 *In order to realize the vision the network needs to have a transparent structure of the organisation. The second challenge is therefore to stimulate the work bodies to align their mandates with the goals of Vision 2030. Once the vision and mission is adopted, the present structure and organisation will have to be re-visited. **An Action Plan should be developed and at the IEC 2016 ways and means for implementing Vision 2030 would be presented. This action plan should have specific indices so that the performance could be evaluated in a defined period.***

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Annex 5 [IEC Item 10, Para 18]

**REVISED SCHEME FOR RECOGNITION OF
'HERITAGE IRRIGATION STRUCTURES (HIS)'****1. Background**

- 1.1 At the 63rd meeting of International Executive Council (IEC) held at Adelaide, Australia on 28 June 2012, President Gao Zhanyi suggested that a process for recognition of the historical irrigation structures on the lines of World Heritage Sites as recognized by UNESCO shall be initiated. Accordingly, a Task Team comprising of the following members, was set up to work out objectives, guidelines and procedures to select the historical irrigation structures. **The Scheme was discussed during the meeting of WG-HIST at 65th IEC meeting. The members suggested changes in the scope of the Scheme, The present Scheme has been revised and updated to include both the old operational irrigation structures as well as structures that have primarily archival value.**

2. Objective

- 2.1 It is proposed that a historical irrigation and/or drainage structure fulfilling the criterion laid down in this document shall be recognized as "Heritage Irrigation Structure" (HIS). The main objectives of recognition as a "Heritage Irrigation Structures" are:
- (a) Tracing the history of and understanding the evolution of irrigation in the civilizations across the world.
 - (b) To select and collect information on historical irrigation structures from around the world, understand their significant achievements and gather knowledge about the unique features that have sustained the project for such a long period;
 - (c) To learn the philosophy and wisdom on sustainable irrigation from these structures; and
 - (d) To protect/preserve these historical irrigation structures

3. Scope

- 3.1 The type of the structures or facilities to be considered for recognition as Heritage Irrigation Structures shall fulfil following criterion:
- (a) The structure shall be more than 100 years old;
 - (b) The structures shall fall under one of the following categories:
 - (i) Dams (operational largely for irrigation purpose),
 - (ii) Water storage structures such as tanks for irrigation,
 - (iii) Barrages and other water diversion structures,
 - (iv) Canal Systems,
 - (v) Old waterwheels,
 - (vi) Old shadouf,
 - (vii) Agriculture drainage structures,**
 - (viii) Any site or structure functionally related to present or past agricultural water management activity.**

4. Criterion

- 4.1 The structure recognized as a Heritage Irrigation Structure should fulfill one or more of the following criterion.
- (a) The structure should represent a milestone / turning points in development of irrigated agriculture and should bear an exceptional testimony to development of agriculture and increase in food production along with the improvement of economic condition of farmers;
 - (b) The structure that was ahead of its times in terms of project formulation, engineering design, construction techniques, dimensions of the structure itself, quantum of water diverted, and size of the command; [any one or more of these]
 - (c) Must have made outstanding contribution to enhancing food production, livelihood opportunities, rural prosperity, and poverty alleviation in a region;

- (d) Was innovative in its ideas at the time of its construction;
- (e) Contributed to the evolution of efficient and contemporary engineering theories and practices;
- (f) Is an example of attention to environmental aspects in its design and construction;
- (g) Was an example of engineering marvel or excellence at the time of its construction;
- (h) Was unique in some positive and constructive way;
- (i) Bears the stamp of a cultural tradition or a civilization of past the past;

4.2 The structures fulfilling the above laid criterion will be classified into Lists:

- (a) **List A would include those structures which are still operational and present an outstanding example of sustainable Operation & Management over a long period of time;**
- (b) **List B would include those structures which essentially have archival value and are no more functional**

5. What does listing as an ICID Heritage Irrigation Structure mean?

5.1 The process of documentation, recognition and appropriate management of the Heritage Irrigation Structures will benefit the irrigation and drainage fraternity as well as the society in general by providing:

- (a) Understanding of the factors that make the heritage structures sustainable and learn lessons there from;
- (b) Education opportunity for professionals, students and general public; and

5.2 For UNESCO World Heritage Sites, inclusion means maintaining status quo forever. But it would be incorrect to stipulate the same for irrigation structure, as the people have the right to replace older structure with more efficient ones for better water use efficiency. Recognition as an HIS would be used to draw attention of the concerned governments to provide sufficient resources to maintain the HISs. ICID may provide small scale technical guidance to the project authority through a team of experts from ICID for its further sustainability, conservation and safe management as long as possible. ICID through various kinds of published material (Coffee table publications, web pages etc) should bring these HIS into the public knowledge and the role they have played in achieving food security.

6. Procedure

6.1 A historical irrigation and drainage structure fulfilling the criterion laid under section 4, based on the recommendation of the Jury to be constituted following the guidelines, as presented below, will be approved by the International Executive Council to be recognized as Heritage Irrigation Structure (HIS) that will be included in an “**ICID Register of Heritage Irrigation Structures**” and presenting a “**Heritage Irrigation Structure**” Plaque citing the salient features of the HIS. The Plaque will be awarded to the National Committees for onward transmission to the authorities responsible for the running and maintenance of the structure for displaying prominently on the body of the structure. The ICID Register of HIS would be publicized through ICID media channels.

6.2 The National Committee should report the current status of registered HIS site to ICID, after 5 years of registration.

6.3 Application

6.3.1 Any National Committee/Committee of ICID can nominate or send a proposal for recognizing historical irrigation structures meeting the criteria prescribed below, in the format prescribed at **Annexure**. The NC shall obtain a ‘letter of support’ from the relevant authority (ies).

6.4 Jury

6.4.1 The President shall constitute a Panel of Judges, broadly following the composition below for adjudication with the objective to provide recognition to Heritage Irrigation Structures:

| | |
|-----------------------------|--------------------|
| Chairman, PCSO | - Chairman |
| Chairman/Ex-Chair, WG-HIST | - Member |
| Nominees from 3 NCs of ICID | - as Members |
| Secretary General, ICID | - Member-Secretary |

6.5 Call for nomination

6.5.1 The nomination process for recognition of Heritage Irrigation Structures is open ended and the National Committees desirous of submitting a nomination can fill in the required information in the Nomination Form as prescribed in Annexure A. The nomination forms received by 30th June every year will be processed together and presented to the following Executive Council meeting after due processing.

6.6 Financial

6.6.1 ICID will seek to create a fund to meet the requirements of resources for:

- (a) Processing the applications,
- (b) Providing certain technical support to the HIS for maintaining the structure in good condition,
- (c) Developing material for dissemination of HIS, and
- (d) Bringing out publications based on the lessons learnt.

6.7 Contact

6.7.1 The ICID Central Office may be contacted for further information on the Recognition of HIS,

Secretary General, ICID
48 Nyaya Marg, Chanakyapuri
New Delhi 110021
Tel: +91-11-26116837, 2611 5679, 2467 9532, Fax: +91-11-26115962
E-mail: icid@icid.org, Website: www.icid.org



Annexure to para 6.3.1 of the Scheme

**NOMINATION FORM FOR INCLUDING IN THE
ICID REGISTER OF HERITAGE IRRIGATION STRUCTURE**

(Note: The information provided herein can be used by ICID to inform, market and give publicity to the HIS included in the ICID Register of World Heritage Irrigation Structures through various dissemination mechanism, giving due acknowledgement to the National Committee and the owner organization.)

1. Details of the Irrigation Structure Nominated

(Separate form should be submitted for each nominated structure)

- (a) Name:
- (b) The year of commissioning:
- (c) Area Irrigated/ drained:
- (d) Geographical Coordinates:
- (e) River basin/ sub-basin where located:
- (f) Name of the Nominating National Committee/Committee:

2. Management Details of the HIS:

- (i) Ownership:
 - (a) Name of organization
 - (b) Address:
- (ii) Name and contact details of Official(s) managing the nominated structure
- (iii) Present source of fund for Operation and Maintenance of the nominated structure **(For List A structures)**
- (iv) Present source of fund for Maintenance of the nominated structure (For List B structures)**

3. Description giving Salient Features of the nominated structure

(Provide in a separate sheet in 500 words. Also provide Maps/ Sketch /Plans, if available showing various components, boundary, jurisdiction of the project area (to be attached))

4. Justification for nomination:

- (a) Criteria which the nominated structure fulfils and how (Please provide a write up of not more than 1000 words one or more criteria that the structure fulfils)
- (b) Statement on the nominated structure’s engineering utility as on date vis a vis its designed utility. **(For including in List A)**
- (c) Statement on the nominated structure’s engineering utility at the time it was functional, and details of the overall project of which it formed an essential part. (For including in List B)**

5. Present state of Conservation

(Enumerate and describe factors that are affecting or have affected the utility of the nominated structure in the past e.g. Encroachment, Suitability in present conditions, pollution, natural disaster such as floods, earthquake, visitors/tourism pressure etc.) (Max 500 words)

6. Documents attached

- (a) Support letter (s) from the relevant local/national authorities (Essential)
- (b) Document providing project description,
- (c) Document/ Report enumerating benefits accrued from the project since its inception
- (d) Project photographs old as well as the latest
- (e) Audio visual materials and
- (f) Inventory of project property,
- (g) Bibliography etc.

(In case the documents are too bulky, please provide electronic versions) (Scanned etc.)

7. Certification by the National Committee/Committee

(i) Authentication:

- (a) It is certified that the above information is correct to the best of our knowledge and the relevant institutions/departments have been contacted or informed about this nomination. **(Concerned Archeological Department/Agency or maintaining organization in case of LIST B)**
- (b) National Committee will undertake the actions required to disseminate the information befitting the listed Heritage Irrigation Structure.

(ii) No Objection certificate:

We have no objection to ICID using the information provided with this nomination form for marketing and to give publicity to the historical irrigation structure nominated.

- (a) Signatures
Chairman / Secretary of Nominating
National Committee / Committee
- (b) Name
- (c) Address
.....
.....
- (d) Seal



DR-1/66 [IEC Item 8.4, Para 15]

INTERNATIONAL EXECUTIVE COUNCIL (IEC)
DRAFT RESOLUTION IEC-1/66: 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 Abhyankar and Company; and

Considering the recommendation of the Management Board;

Decides Unanimously

1. To approve the nominations of Mr. _____ and Ms. _____ to the membership of PFC.
2. That the persons, institutions and companies 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.
3. That the National Committees of ____ and ____ be declared as “Associate Member” from 1 January 2016 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 2014-15 as given in **Annex R1.1 (Annex 2 of PFC Agenda, page 264)**.
5. To approve the Revised Budget of ICID for the financial year 2015-16 and the Budget for the financial year 2016-17 as given in **Annex R1.2 (Annex 2 of PFC Agenda, page 264)**.
6. To approve the Registration Fee Structure for the _____ and _____ meetings as per **Annex R1.3**.
7.
8.

Appreciates

1. The NC of Korea for contributing the appropriate share of the registration fee for the 22nd ICID Congress and 65th IEC to the ICID Budget.
2. The Ministry of Water Resources, People’s Republic of China for providing a grant of US\$ 58200 for carrying out various ICID activities during the Financial Year 2014-15.

Requests

1.
2.
3.



DR-2/66 [IEC Item 8.4, Para 15]

INTERNATIONAL EXECUTIVE COUNCIL (IEC)
DRAFT RESOLUTION IEC-2/66: 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 reactivation of the National Committee of Sudan in accordance with By-law 13.5
2. To approve the membership changes of various work bodies of PCTA and PCSO as given **Annex R2.1** (*to be prepared as an outcome of PCTA and PCSO recommendations*).
3. To accept the Report of the Sub-Committee under PCTA to deliberate upon the Themes, Topics and Work plans of future ICID Congresses and World Irrigation Forums and decides to fix the broad topics and work plans for these events presented by the Task Team as given in **Annex R2.2**.
4. To approve the establishment of the workbodies on the topics under the Thematic Area Scheme
 - (i) Irrigation Development and Management,
 - (ii) Capacity Development, Training and Education, and
 - (iii) Water Saving in Irrigated Areas.
5. To approve the closure of WGs and
6.

Appreciates

1.

Requests

2.



DR-3/66 [IEC Item 9, Para 16]

INTERNATIONAL EXECUTIVE COUNCIL (IEC)
DRAFT RESOLUTION IEC-3/66: ICID VISION 2030 DOCUMENT

THE Council

Considering the Report of the Consultative Group to develop Draft ICID Vision 2030 Document set up by President ICID, in consultation with Secretary General, ICID as per Article 3.9.8 of ICID By-laws, vide Notification No.9 of 2014 dated 26 November 2014,

Noting the recommendations of PCSO and the endorsement of the Management Board,

Decides

1. To adopt the ICID Vision 2030 Document in principle as given in **Annex 4, page 13** duly modified in view of the suggestions received from the National Committees and as discussed during IEC.
- 2.
- 3.

Requests

1. The Consultative Group to duly modify / make suitable changes to the ICID Vision 2030 Document in view of the suggestions received from National Committees and discussions during the 66th IEC meeting and submit the same to Management Board for final approval by December 2015.
2. Management Board to take further action to develop strategies to implement the Vision 2030 Document in order to achieve the vision encapsulated therein.



DR-4/66 [IEC Item 10, Para 18]

**INTERNATIONAL EXECUTIVE COUNCIL (IEC)
DRAFT RESOLUTION IEC-3/66: SCHEME FOR RECOGNITION OF
HERITAGE IRRIGATION STRUCTURES (HIS)**

THE Council

Considering the Report of the Task Team to work out Objectives, Guidelines and Procedures to select Historical Irrigation Structures, set up by the MB in August 2012 and the request of 65th IEC to revisit the Scheme in view of discussions at the WG-HIST and OBC,

Noting the endorsement of the Management Board,

Decides unanimously

1. To adopt the Scheme for Recognition of Heritage Irrigation Structures (HIS) as given in **Annex 5, page 27**.
- 2.
- 3.

Requests

1. Secretary General to present a proposal at the next meeting of IEC to appropriately publicize the lessons learnt from these structures



**PERMANENT COMMITTEE ON STRATEGY AND ORGANIZATION (PCSO)
AND WORKBODIES UNDER PCSO**

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**AGENDA FOR THE 26TH MEETING OF THE
PERMANENT COMMITTEE ON STRATEGY AND ORGANIZATION (PCSO)
15 October 2015, 09.00-12.30, hours
Montpellier, France**

Mandate: The Permanent Committee on Strategy and Organization 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 in their areas.

Members: (1) Vice President Dr. Hüseyin Gündoğdu, Chairman (Turkey, 2012); (2) Vice President Hon. Prof. Tai Cheol, Kim (South Korea, 2011); (3) Vice President Hon. Mr. Adama Sangare (Mali, 2011); (4) Vice President Hon. Dr. Gerhard Backeberg (South Africa, 2011); (5) Vice President Mr. Laurie C. Tollefson (Canada, 2012); (6) Vice President Mr. François Brelle (France, 2012); (7) Vice President Dr. Ir. Basuki Hadimoeljono (Indonesia, 2013); (8) Vice President Mr. Kadhim Mohsin Ahmed (Iraq, 2013); (9) Vice President Er A.B. Pandya (India, 2013); (10) Vice President Dr. Mohamed Abd-El-Moneim Wahba (Egypt, 2014); (11) Vice President Dr. Ding Kunlun (China, 2014); (12) Vice President Bong Hoon Lee (Korea, 2014) and (13) Er. Avinash C. Tyagi, Secretary General, ICID.

Ex-Officio Members: (1) Chairman, African Regional Working Group; (2) Chairman, European Regional Working Group; (3) Chairman, Asian Regional Working Group; (4) Chairman, ICID Young Irrigation Professionals Forum; (5) Chairman, Committee on Congresses/Conferences and (6) Chairman, Working Group on Irrigation and Drainage in States under Socio-Economic Transformation.

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

PCSO Agenda Item 1: ATR on the Minutes of the 25th Meeting of PCSO

1. An Action Taken Report on the minutes of the 25th meeting of PCSO is placed at **Annex 1**.

PCSO Agenda Item 2: Membership of PCSO and its Workbodies

2. As per ICID By-laws 3.9.5 (c), the three newly elected Vice Presidents at Montpellier will become members of PCSO by virtue of the Office they are elected to and three Vice Presidents Honoraire will retire from PCSO membership on completion of their 4-year term at the end of 66th meeting of IEC.
3. PCSO will also consider the proposals from the Chairpersons of various workbodies associated with it, for any changes in their membership.

PCSO Agenda Item 3: Vice Presidents' reports: Strengthening regional cooperation and activities of National Committees

4. The updated list of ICID Network countries as on 01 August 2015 is given in **Annex 2**. The statement below summarizes the region-wise membership status:

| Region | Active | Associate Members | Total |
|------------------|-----------|-------------------|-----------|
| Africa | 15 | 1 | 16 |
| Americas | 04 | 2 | 6 |
| Asia and Oceania | 22 | 5 | 27 |
| Europe | 16 | 10 | 26 |
| Total | 57 | 18 | 75 |

5. The National Committees of Ukraine has become “Associate Member” with effect from January 2015. The National Committee of Fiji has paid their outstanding subscriptions up to 2014, thus keeping their membership active in ICID. The National Committee of Sudan has reactivated its membership by paying the membership subscription for the years 2015 and advance subscriptions for the years 2016, 2017, 2018 and 2019. At this moment, the Committee records its special appreciation to Prof. Abdin Salih, University of Khartoum, Governing Body Member of UNESCO-IHE, who has taken special interest in the reactivation of Sudan National Committee.

6. The members of erstwhile NC of Austria, Norway and Myanmar have been approached to revive their membership of ICID. Responses from Austria and Norway have been positive, however, the further actions like submission of membership application forms are yet to come from both these countries.

7. Prof. Dr.-Ing. Klaus Röttcher of German National Committee of ICID (GECID) who is also Vice Chairman of WG-CAFM in his mail to Chair, WG-CAFM has expressed Germany’s inability to reactivate its membership of ICID.

8. In light of the elections of three new Vice Presidents at the 65th IEC meeting held at Gwangju on 20 September 2014, a redistribution of the Regions / National Committees amongst the newly elected and present Vice Presidents for the year 2014-15 was effected. Vice Presidents will apprise the Committee of their efforts on strengthening the activities of ICID in the regions of their respective responsibilities.

PCSO Agenda Item 4: ICID Vision 2030

SUPP: Dr. Olcay Unver of FAO will make a presentation on “World Agriculture 2030/2050” that would form the basis for starting discussion on agenda item 4.

9. In view of the changing role of irrigation and drainage in ensuring water security, food security and sustainable development in both developed and developing economies under limited natural resource base, President Dr Saeed Nairizi feels that ICID needs to review its relevance, develop a strategy to adequately re-position itself and draw out its implementation plan in its core activities, i.e. irrigation, drainage and flood management for the next 15 years by developing a vision for ICID up to 2030.

10. Accordingly, as per Article 3.9.8 of ICID By-laws, President, in consultation with Secretary General, constituted a “Consultative Group (CG)” with PCSO Chair as Convener to undertake the vision exercise. The other members of CG are VPH Dr. Gerhard Backeberg, VPH Dr. Willem Vlotman, Mr. Ian Makin, Dr. Sylvain Perret, Prof. Dr. Ir. Charlotte de Fraiture and Secretary General.

11. The Terms of Reference (ToR) of CG are (i) Assess the present scenario of water sector and the role irrigation can play in meeting the challenges of growing water and food security, (ii) Assess the role of ICID in the Irrigation, Drainage and Flood Management global practices and developments, (iii) Assess the mandate of ICID vis-à-vis the present and future challenges in the water sector, (iv) Develop the future role of ICID in the sustainable development in the post 2015 development agenda, (v) Review ICID technical and organizational structures to meet such demands, and (vi) Develop first Draft of “ICID Vision 2030” document.

12. The CG conducted wide internal consultations with the National Committees and the various experts associated with ICID through a questionnaire. The first draft of the ICID Vision 2030 document will be presented by SG at the PCSO meeting. The draft has been circulated among the members of MB, OBC and the NCs for their feedback.

SUPP: The comments received from NCs are consolidated in Annex 4A and based on these comments, the document (Version 3.0) thus developed is attached as Annex 4B (refer supplementary notes (SUPP) to IEC Agenda Item 9).

PCSO Agenda Item 5: Membership of ICID

PCSO Agenda Item 5.1: Review and Reactivation of Associate Membership of ICID

13. The Central Office has in its record the Constitutions of 46 National Committees. Rest of the National Committees are being advised, from time-to-time to adopt (where required) and furnish a copy of their Constitution to the Central Office. They have also been requested to inform about the modifications undertaken in their constitution from time to time, if any, to the Central Office. A sample ‘Constitution of National Committee’ has been provided to those National Committees who requested for it and a copy of the same can be accessed in the ‘Members Only’ pages of the ICID Website.

14. The National Committees have been requested to continue to broadbase their membership at the national level in order to provide a platform to all the stakeholders in the agriculture water management, as a follow up of the Resolution No.IEC-1/64. This may result amendments in the constitution of NCs and they have been requested to provide a copy of the amended constitution to CO for its record.

15. Associate Members were requested to reinstate the activities within the countries and at the same time renew their membership by paying the subscription fees due. Vice Presidents of the concerned region were also requested to use their good offices for reactivation of such NCs. With the active support of Central Office, the Vice Presidents have been in correspondence with countries in their region in order to reactivate or motivate the deemed inactive NCs to again become members of ICID. VPs may like to provide a brief report on their efforts in this direction and results achieved thereon. The Committee may also suggest ways and means to reactivate the Associate Members, in view of the VPs' reports.

SUPP: VP Bong Hoon Lee met Mr. Ronald Kato, Assistant Commissioner of Ministry of Agriculture, Animal Husbandry and Fisheries and took up the issue of reactivation of NC of Uganda (UNCID). The response has been positive and VP Lee will further appraise the Committee in the matter.

PCSO Agenda Item 5.2: Recommendations of the Direct Membership Administering (DMA) – Sub Committee

16. This year, the CO has received 18 applications for Direct Membership. Out of these 18, five applications have been found to be complete in all respects. These applications were sent to respective National Committees for 'No Objection Certificate (NOC)' for granting provisional direct memberships. However, the US National Committee has objected to granting DM to Prof. David Jones, one of the DM applicants, as he would be welcome to join USCID to take part in ICID activities. NOCs have been received from the NCs of Bangladesh and Turkey with respect to applicants at Sr. Nos. 1 and 2. All these applications have been sent to Direct Membership Administering (DMA) Sub-Committee for final scrutiny before admitting them as provisional direct members, subject to receipt of NoCs from Indian NC for sr. nos. 3 and 4 which are awaited.

| SI. No. | Name of Applicants | Country | Type of Membership Applied for |
|---------|--------------------------------|------------|---------------------------------|
| 1 | Md. Samiul Ahsan Talucder | Bangladesh | Individual (Young Professional) |
| 2 | Mr. Aytakin Turgay | Turkey | Life Membership (Individual) |
| 3 | Prof. Prashanta Kumar Bordoloi | India | Life Membership (Individual) |
| 4 | Jain Irrigation System Ltd. | India | Company (C) for Three Years |

17. Out of 7 direct members who were active last year, the following five have continued their membership:

| SI. No. | Name of Direct Member | Country | Category of Membership |
|---------|------------------------|---------|------------------------|
| 1 | WAPCOS Limited | India | Company |
| 2 | India Water Foundation | India | Institution |
| 3 | Er. M. Gopalakrishnan | India | Individual (Retiree) |
| 4 | Mr. Y Abdul Basheer | India | Individual (Retiree) |
| 5 | Mr. Naty Barak | Israel | Individual (Retiree) |

PCSO Agenda Item 6: Collaboration and Cooperation between ICID and other International Organizations

18. ICID has been collaborating with various international partners like ADB, AWC, FAO, GWP, ICARDA, ICOLD, ICRISAT, IFAD, IWMI, UN-Water, WMO, World Bank, and WWC in an active manner, adding new facets to the existing collaborations. For more details about ICID's international cooperation, please refer Chapter 7 "Working Together with Partners" of Annual Report 2014-15.

19. A brief overview of the planned collaborative activities would be presented by Secretary General. It will include, among others the recent efforts to establish a World Water System Heritage (WSH) jointly with the World Water Council.

20. Members are requested to provide suggestions to make the collaborative efforts with other international organizations more meaningful.

PCSO Agenda Item 7: Review of reports of Regional Working Groups (RWGs)

21. The Chairpersons of the following WGs will make presentations on the activities of their respective workbodies and present their recommendations for review and consideration by Committee prior to making recommendations to IEC for approval. In the absence of the Chair, the member chairing the WG meeting may present the report.

PCSO Agenda Item 7.1: African Regional Working Group (AFRWG)

22. Dr. Sylvester Mpandeli, Chair of AFRWG will present the report of the meeting of RWG.

PCSO Agenda Item 7.2: European Regional Working Group (ERWG)

23. VPH Dr. Laszlo G. Hayde, Chair of ERWG will present the report of the meeting of RWG.

PCSO Agenda Item 7.3: Asian Regional Working Group (ASRWG)

24. VPH Dr. Karim Shiati, Chair of ASRWG will present the report of the meeting of RWG.

PCSO Agenda Item 8: Review of reports of Working Groups/Committees

25. The Chairpersons of the following WGs will make presentations on the activities of their respective workbodies and present their recommendations for review and consideration by Committee prior to making recommendations to IEC for approval. In the absence of the Chair, the member chairing the WG meeting may present the report.

PCSO Agenda Item 8.1: Working Group on Irrigation and Drainage in States Under Socio-Economic Transformation (WG-IDSST)

26. VPH Prof. Peter Kovalenko, Chair will present the report of the meeting of WG.

PCSO Agenda Item 8.2: Committee on Congresses/Conferences (C-CONGR)

27. Mr. Luis Rendon Pimentel, Chair will present the report of the meeting of the Committee, including his recommendations to slightly modify the mandate of the C-CONGR in view of the establishment of the new sub-committee on themes etc under PCTA.

PCSO Agenda Item 8.3: ICID Young Professionals' Forum (YPF)

28. Vide Resolution No. IEC-3/65 (Sr. No.4) the Council approved the conversion of WG-YPF into 'ICID Young Professionals' Forum' and requested SG to develop rules and assist the organization of YPF. SG will apprise the Committee about the progress.

PCSO Agenda Item 8.4: Young Professional Mentorship Programme

29. Vide Resolution No. IEC-3/65, the Council requested SG to revisit the YP mentorship scheme considering new inputs and present a revised proposal at the 66th IEC meeting at Montpellier, France. SG will present the proposal for Committee's consideration and recommendation.

PCSO Agenda Item 9: Organizational issues related to IEC, Congresses, Forums and Conferences

PCSO Agenda Item 9.1: Report of the Sub-Committee under PCTA to deliberate upon the themes, Topics and Workplans of the various future ICID Events including Congresses and World Irrigation Forums

30. The Chair of the Sub-Committee, PH Schultz will present his report at the Committee meeting for its consideration.

PCSO Agenda Item 9.2: Renaming of International Micro Irrigation Symposium as International Micro Irrigation Conference

31. At the 61st IEC meeting held in Yogyakarta, Indonesia on 15 October 2010, the Council approved the report of MB wherein it was stated that the nomenclature of 'Congress' was assigned to 'Micro Irrigation Conference' from that time while deciding not to rename the 8th Micro Irrigation Congress that was to be held alongside the 21st ICID Congress in Tehran in 2011. The Council also felt that the nomenclature 'Congress' is apt for one and only one event in ICID which is the ICID Congress that has been covered in the Constitution and By-laws. Elevating the Micro Irrigation, which is just one of the many sets of topics that ICID handles to that of a parallel Congress, had to stop.

32. In line with the above decision at 61st IEC, the WG-ON-FARM at its meeting in Adelaide, Australia on 24 June 2012 considered various options such as renaming of International Micro Irrigation Congress as International Micro Irrigation Conference or other like World Micro Irrigation Conference and finally recommending to PCTA to rename Micro Irrigation Congress as Micro Irrigation Symposium which was later accepted by IEC at its 63rd meeting on 28 June 2012, on the recommendation of PCTA. IEC also decided to continue the Symposiums in the series of MIC and suggested that these Symposiums could also be held in parallel with the World Irrigation Forum at suitable intervals.

33. While considering the international character of the event organized on the topic of Micro Irrigation, it is quite unjustifiable just limiting it to merely into the frame of a 'Symposium'. Hence it is proposed that the 'Micro Irrigation Symposium' be renamed as 'International Micro Irrigation Conference' as was recommended and approved in the report of MB presented at 61st IEC in Yogyakarta which will truly reflect the worldwide importance of this topic. The Committee may consider and appropriately recommend to IEC.

PCSO Agenda Item 10: Any other business

SUPP: Dr. M. Javad Monem, Head, Iran node of International Research Program on Irrigation and Drainage (IRPID) will present to the Committee the progress made by the node and share his views and experiences in the functioning and further development of IRPID.



ACTION TAKEN REPORT
The 25th Meeting of PCSO
18 September 2014, Gwangju, Republic of Korea

| Item | Recommendation | Decision of 65 th IEC | Action Taken |
|---|--|--|---|
| 2. Membership of PCSO and Workbodies | | | |
| | Reviewed the membership of workbodies associated with it and recommended changes in the membership of various workbodies. | Accepted the PCSO recommendations as per Resolution IEC-3/65 (Sr. No.2). | The membership changes have been communicated to the NCs. |
| 8. Young Professional Mentorship Program | | | |
| | Requested SG to revisit the mentorship scheme earlier prepared considering these new inputs and present a revised proposal at the 66 th IEC meeting in Montpellier, France. | Endorsed vide Resolution No.IEC-3/65 (Sr. No.12) | SG will present the revised YP Mentorship Program at 66 th IEC for its consideration. |
| 9. Review of Working Groups/Committees | | | |
| | Recommended that WG-YPF may be converted into an "ICID Young Professionals' Forum", with open membership and requested CO to assist in the organization of the YPF. | Endorsed vide Resolution No.IEC-3/65 (Sr. Nos. 4 and 13) | Converted WG-YPF into 'ICID Young Professionals' Forum' and the rules are being developed for the organization of the Forum which will be presented at the Committee meeting for its consideration. |



ICID Network Countries as on August 2015

| Sl. No. | National Committees | Acronym | Year of Joining |
|----------------|----------------------------|----------------|------------------------|
| 1. | Australia | IACID | 1952 |
| 2. | Bangladesh | BANCID | 1973 |
| 3. | Brazil* | ABID | 1970 |
| 4. | Burkina Faso | CNID-B | 2014 |
| 5. | Canada | CANCID | 1956 |
| 6. | Chad | ATID | 2012 |
| 7. | China | CNCID | 1983 |
| 8. | Croatia | CRCID | 1993 |
| 9. | Czech Republic | CZNC-ICID | 1997 |
| 10. | Egypt* | ENCID | 1950 |
| 11. | Estonia | ESTICID | 2001 |
| 12. | Ethiopia | ETCID | 1976 |
| 13. | Fiji | FIJICID | 2010 |
| 14. | Finland | FINCID | 2000 |
| 15. | France | AFEID | 1953 |
| 16. | Hungary | HUCID | 1955 |
| 17. | India* | INCSW | 1950 |
| 18. | Indonesia* | INACID | 1950 |
| 19. | Iran | IRNCID | 1955 |
| 20. | Iraq | IRQCID | 2006 |
| 21. | Ireland | IRCID | 1978 |
| 22. | Italy* | ITAL-ICID | 1950 |
| 23. | Japan | JNC-ICID | 1951 |
| 24. | Kazakhstan | KAZCID | 2006 |
| 25. | Korea, Rep. of | KCID | 1969 |
| 26. | Madagascar | MADCID | 2014 |
| 27. | Malawi | MALCID | 1967 |
| 28. | Malaysia | MANCID | 1958 |
| 29. | Mali | AMID | 2005 |
| 30. | Mexico | MXCID | 1951 |
| 31. | Morocco | ANAFIDE | 1959 |
| 32. | Nepal | NENCID | 1973 |
| 33. | Netherlands* | NETHCID | 1950 |
| 34. | Niger | ANID | 2007 |
| 35. | Nigeria | NINCID | 1970 |

* Founder Member

Annex 2 [Continued]

| Sl. No. | National Committees | Acronym | Year of Joining |
|--------------------------|----------------------------|----------------|------------------------|
| 36. | Pakistan | PANCID | 1953 |
| 37. | Philippines | PNC-ICID | 1956 |
| 38. | Portugal | PNCID | 1954 |
| 39. | Romania | CNRID | 1992 |
| 40. | Russia | RUCID | 1955 |
| 41. | Saudi Arabia | SACID | 1977 |
| 42. | Slovenia | SINCID | 1992 |
| 43. | South Africa | SANCID | 1993 |
| 44. | Spain | CERYD | 1955 |
| 45. | Sri Lanka* | SLNICID | 1950 |
| 46. | Switzerland* | CH-AGRAM | 1951 |
| 47. | Sudan | SUCID | 1964 |
| 48. | Tajikistan | TAJCID | 2014 |
| 49. | Tanzania | TANCID | 2011 |
| 50. | Thailand* | THAICID | 1950 |
| 51. | Turkey* | TUCID | 1954 |
| 52. | United Kingdom | IWF/ICID.UK | 1951 |
| 53. | United States of America | USCID | 1951 |
| 54. | Uzbekistan | UzNCID | 1994 |
| 55. | Zambia | ZACID | 1966 |
| 56. | Zimbabwe | ZICID | 1955 |
| Committee | | | |
| 57. | Chinese Taipei Committee | CTCID | 1969 |
| Associate Members | | | |
| 58. | Afghanistan | AFGICID | 2008 (2014)** |
| 59. | Austria | AUNCID | 1954 (2015) |
| 60. | Bulgaria | BNCID | 1960 (2006) |
| 61. | Germany | GECID | 1957 (2015) |
| 62. | Greece | GRCID | 1957 (2012) |
| 63. | Guyana | GUCID | 1957 (2012) |
| 64. | Israel | ISCID | 1950 (2012) |
| 65. | Kyrgyz Republic | KYRCID | 2004 (2010) |
| 66. | Lithuania | LNCID | 1994 (2014) |

** Year in parenthesis is of the NC becoming inactive

Annex 2 [Continued]

| Sl. No. | National Committees | Acronym | Year of Joining |
|----------------|-----------------------------------|----------------|------------------------|
| 67. | Macedonia | MAKCID | 1995 (2010) |
| 68. | Mozambique | MOCID | 1978 (2006) |
| 69. | Myanmar | MINCID | 1962 (2012) |
| 70. | Poland | POCID | 1967 (2006) |
| 71. | Serbia (erstwhile Yugoslavia*) | YUGCID | 2002 (2012) |
| 72. | Slovak Republic | SKNC-ICID | 1996 (2006) |
| 73. | Syria | SYCID | 1962 (2014) |
| 74. | Ukraine | UACID | 1996 (2014) |
| 75. | Uruguay | URUCID | 2007 (2012) |

APPENDIX II [PCSO Item 8.2]

**AGENDA FOR THE 26TH MEETING OF THE
COMMITTEE ON CONGRESSES/CONFERENCES (C-CONGR)**

13 October 2015, 09:00-10:30 hours
Montpellier, France

Presented by the Convener

Year of Establishment: 1990

Mandate: The mandate of the Committee is:

- (i) to recommend general improvement in conduct of Congresses/Conferences sessions;
- (ii) to recommend tasks and duties for General Reporters and Panel of Experts for Congress Questions, Special Session and Symposium;
- (iii) to study and establish, if needed, the basic guidelines for recommending the tasks and responsibilities of National Organizing Committees;
- (iv) to establish appropriate procedures for selection of Congress Questions, Special Sessions and Symposium; to establish procedures for scheduling of most appropriate workshops, seminars, etc. to be held at the time of Congress;
- (v) to make recommendations on the number and type of simultaneous meetings at Congresses/Conferences in order to improve effectiveness and attendance;
- (vi) to study and accord advice to the National Committees, for methods to be adopted in each case for an effective follow-up of the Conclusions and Recommendations of Congresses/Conferences; and
- (vii) to make recommendations on printing the proceedings for distribution of abstracts in advance.

Members: (1) Dr. Luis Rendón Pimentel (Mexico, 2014), Chairman; (2) Korean representative; (3) Mr. Mehrzad Ehsani, Iranian representative; (4) Mrs. Serpil Koylu, Turkish representative; (5) Ms. Caroline Coulon, French representative; (6) Dr. Somkiat Prajamwong, Thai representative; (7) Egyptian representative; (8) Ir. Brad Peters, Canadian representative; and (9) Dr. Vijay K. Labhsetwar, ICID Central Office, representing Secretary General.

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

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

1. The Chairman Dr. Luis Rendón Pimentel (Mexico) may like to present a report regarding actions taken on the decisions made during the last meeting of the Committee at Gwangju, Korea (2014).

C-CONGR Agenda Item 2: Membership of the Committee

2. The Committee is composed of a Chairman, who is a member of the Organizing Committee of the (next) Congress and six other members appointed as follows: One member of each of the Organizing Committees of the previous and next to immediate next Congresses, two members of the two previous Organizing Committees and two future IEC meetings. The basic composition might be complete by addition of one member of the Organizing Committee of each of the Regional Conferences held during the past and the future meetings, unless it coincides with an IEC meeting.

C-CONGR Agenda Item 3: Revised mandate of the Committee

3. Since a Sub-committee has been established to look into the Themes, Topics and Work Plans of future ICID events, it is proposed to revise the mandate of the C-CONGR. Please recall, the above Sub-Committee, under PCTA, was established under the Chairmanship of Prof. Bart Schultz in 2014. The mandate /ToRs of the Sub-Committee are as follows:

- (a) To deliberate and recommend the Themes, Topics and Works plans of future ICID events including Congresses and World Irrigation Forums (WIFs);
- (b) To set out format and technical contents of the Congress and WIFs;
- (c) To recommend optimal programme for the Congress to PCTA;

- (d) To recommend to PCTA the topics of the two Congress Questions, Special Sessions and Symposium;
- (e) To review procedures for scheduling of other workshops, seminars etc. at the time of Congress;
- (f) To review the technical outputs and outcomes and suggest follow up actions;
- (g) To review the Conclusions and Recommendations of Congresses/Conferences and recommend effective follow up;
- (h) To recommend on printing of the proceedings of the Congress for distribution of abstracts in advance.

4. Since the sub-committee is taking care of the much of the mandate of C-CONGR and in view of lack of continuity in the membership of C-CONGR, the new mandate for C-CONGR is proposed as below:

- (a) To recommend general improvement in conduct of Congresses/Conferences sessions;
- (b) Representatives/Organizers of the ICID event to present a summary report on preparations made for the said event;
- (c) Lessons learned / difficulties faced in organizing an ICID event;
- (d) Propose solutions for smooth conduct of the ICID event.

5. Members may deliberate and evolve a new mandate to reflect actual transactions/business of the C-CONGR and present it to PCTA. Please note, the financial aspects of organizing an ICID event are looked into by PFC.

C-CONGR Agenda Item 4: Overview of the Montpellier (France) meetings (11-16 October 2015)

6. Ms. Caroline Coulon, representative from French National Committee (AFEID) will apprise the Committee members about the overview and preparations made for the Montpellier (France) meetings scheduled to be held during 11-16 October 2015 at Montpellier, France.

C-CONGR Agenda Item 4.1: 26th ERC and 66th IEC Meetings

7. The 66th International Executive Council (IEC) meeting and 26th European Regional Conference (ERC) will be hosted by French National Committee of ICID (AFEID) in cooperation with the International Commission on Irrigation and Drainage (ICID) during 11-16 October 2015 at Montpellier, France. The main theme of the Conference is *"Innovate to improve irrigation performance"* and sub-themes are: (a) Innovations for smallholders in irrigation; (b) Wastewater use in agriculture and (c) Governance of surface water and groundwater.

8. In addition, several International Workshops (side events) such as 'Non-Structural Adaptations to Flood Management' (Organizer: WG-CAFM), 'Ecosystem Systems Services and Multi-Functionality of Irrigation and Drainage Systems (Organizer: WG-ENV)', 'Precision Irrigation for Sustainable Crop Production' (Organizer: WG-CROP), 'Future of drainage under environmental challenges and emerging technologies' (Organizer: WG-SDG) and 'History of Water Crisis: Old and Recent Issues' (Organizer: WG-HIST) will be organized during the Montpellier meetings. The information on the 26th ERC and 66th IEC meetings is available on the Conference website <http://icid2015.sciencesconf.org/?lang=en>

9. The NCs have been given the opportunity to participate in the NC display/exhibition. National Committees of THAICID and IRNCID have shown their interest in National Committee display. AFEID has been generous enough to provide free space to these NCs. The South African National Committee on Irrigation and Drainage (SANCID) has been given opportunity to present its activities during the IEC plenary session.

10. ICID has provided scholarships to deserving 12 YPs from around the world for attending the 26th ERC and 66th IEC meetings. In order to enrich their repertoire, two half-day training workshops have been organized for them besides them taking responsibilities as rapporteurs in various sessions of 26th ERC and attending WG meetings of ICID.

C-CONGR Agenda Item 5: Feedback from the organizers of the past events

C-CONGR Agenda Item 5.1: Feedback from 22nd ICID Congress and 65th IEC, Gwangju, Korea in Sept. 2014

11. The 22nd ICID Congress, together with 65th International Executive Council (IEC) meetings were successfully held from 14-20 September 2015 at Gwangju, Korea.

12. Vice President Bong Hoon Lee, representative from KCID may apprise the members on lessons learnt from organizing the 22nd ICID Congress and 65th IEC meetings.

C-CONGR Agenda Item 5.2: Feedback from 1st WIF and 64th IEC Meetings, Mardin, Turkey in October 2013

13. The ICID's First World Irrigation (WIF1), together with 64th International Executive Council (IEC) meetings were successfully held from 29th September to 05 October 2013 at Mardin, Turkey.

14. Mrs. Serpil Koylu (Turkey), representative from TUCID may apprise the members on lessons learnt from organizing the 1st WIF.

SUPP: Mrs. Serpil Koylu, representative from Turkish National Committee of ICID (TUCID) has informed that Ms. Nurgul UZUCEK (Turkey) will attend the meeting in place of her and present the feedback from WIF1.

C-CONGR Agenda Item 6: Preparations for the future events for the next 3 years

C-CONGR Agenda Item 6.1: 4th African Regional Conference, 26-28 April 2016 at Cairo, Egypt

15. The 4th African Regional Conference on Irrigation and Drainage (ARCID) will be organized by Egyptian National Committee on Irrigation and Drainage (ENCID) from 26 to 28 April 2016 at Cairo, Egypt. The main theme of the conference is '*Agricultural Land and Water Management for Sustainability under Climate Variability in Africa*' and the sub-themes are: (a) Water Use Management; (b) Food Security; and (c) Research Extension Services and Capacity Development. During the conference, three keynote speeches will also be organized on topics such as (i) Farm and science interface under climate change, (ii) Improving agricultural water management in Africa, and (iii) Water-Food-Energy nexus challenges at the farm level.

16. The announcement and call for papers of the 4th ARCID (http://www.icid.org/4th_afrc_call_papers.pdf) have been issued and widely circulated amongst the National Committees and International Organizations for contributions. Please access the Conference website <http://www.encid.org.eg> for more information.

17. ENCID representative will apprise the Committee members on the progress made on preparations for the 4th African Regional Conference.

C-CONGR Agenda Item 6.2: 2nd WIF and 67th IEC, 06-12 November 2016, Chiang Mai, Thailand

18. Dr. Somkiat Prajamwong, Secretary General of THACID, will apprise the Committee about the preparations in making and detailed planning of the 2nd World Irrigation Forum (2nd WIF) and 67th International Executive Council (IEC) meetings to be held during 06-12 November 2016 at Chiang Mai, Thailand. The main theme of the WIF2 is "*Water management in a changing world: Role of Irrigation for sustainable food production*" and the Sub-Themes are: (a) Key actors in balancing water, food, energy and ecology; (b) Managing Impacts of climate extremes with focus on floods and droughts; and (c) Key and smart actions to alleviate hunger and poverty through irrigation and drainage. Please visit to WIF2 website <http://www.worldirrigationforum.net/> for more information.

C-CONGR Agenda Item 6.3: 13th International Drainage Workshop (IDW), Ahvaz City, Khuzestan Province, Iran, March 2017

19. Mr. Mehrzad Ehsani, representative from Iranian National Committee of ICID (IRNCID) will apprise the Committee on the preparations in making and detailed planning of the 13th International Drainage Workshop (13th IDW) to be held in March 2017 at Ahvaz City, Khuzestan Province, Iran.

C-CONGR Agenda Item 6.4: 23rd Congress and 68th IEC and Congress, 08-14 October 2017, Mexico City, Mexico

20. Dr. Luis Rendón Pimentel, President of MXCID will apprise the Committee on the preparations in making and detailed planning of the 23rd ICID Congress and 68th IEC to be held from 08 to 14 October 2017 at Mexico City, Mexico.

C-CONGR Agenda Item 7: Proposals for future ICID Conferences

21. ICID Central Office has invited proposals from National Committee for the future ICID events. The responses received are:

- (a) **IRNCID's candidacy:** Central Office has received an *Expression of Interest* from Iranian National Committee on Irrigation and Drainage (IRNCID) for hosting the 8th Asian Regional Conference simultaneously with the 13th International Drainage Workshop in Ahvaz City, Khuzestan Province, Iran in March 2017.

- (b) **CANCID's candidacy:** Central Office has received an *Expression of Interest* from Canadian National Committee of ICID (CANCID) for hosting 69th International Executive Council (IEC) in September 2018 at Saskatoon, Canada.

22. Ir. Brad Peters from CANCID and Mr. Mehrzad Ehsani from IRNCID will apprise the Committee on their proposals for hosting the respective events.

C-CONGR Agenda Item 8: Any other business



NOTES FOR CHAIRPERSON:

1. Draft minutes of this meeting to be submitted to ICID Secretariat at Montpellier (France) after the meeting.
2. Chair to participate and present the WG report to PCSO meeting on 15 October 2015.

**AGENDA FOR THE 6TH MEETING OF THE
WORKING GROUP ON IRRIGATION AND DRAINAGE IN THE STATES UNDER
SOCIO-ECONOMIC TRANSFORMATION (WG-IDSST)**

13 October 2015, 09.00-10.30 hours
Montpellier, France

Presented by the Chairman

Year of Establishment: 2009

Completion of the Mandate: 2015

Mandate: (1) to develop and strengthen the network among the countries of transition; (2) to organize monitoring and evaluation of common problems in the States that belong to transition economy; (3) 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; (4) to summarize the experiences in overcoming negative tendencies in organizing public-private partnerships, implementation of IWRM and broad-basing of stakeholder; (5) to monitor the ecological situation in the transition states, including problems of closed basin (Aral Sea, Caspian Sea), salinization and water logging, etc.; (6) development of appropriate advance irrigation and drainage technology in transition states and its dissemination through capacity building; (7) to promote farmer's training to create awareness about irrigated and drainage agriculture.

WG-IDSST Agenda Item 1: Action taken report by Chair

1. The Chairman may like to present report on the actions taken on the various decisions/ proposals made during the last WG meeting held at Gwangju, Korea.

WG-IDSST Agenda Item 2: Review of the membership of the working group

2. Tajikistan National Committee (TAJCID) has proposed Mr. Baratov Rustam Okilovich for the membership of the WG. In January 2015, VPH Prof. Victor Dukhovny proposed Dr. Shukhrat Mukhamedjanov (Uzbekistan) for the position of Secretary of the WG-IDSST.

3. The existing membership of the WG is given at **Annex** (*see the electronic version for the latest list*).

WG-IDSST Agenda Item 3: Develop and strengthen the network among the countries

4. Dr. Shukhrat Mukhamedjanov provided five reports presented during the Gwangju meeting (2014) and the same have been uploaded on the ICID website. Other members are requested to present their experiences on irrigation and drainage situation in their countries including information on population, cultivable land area, irrigated/ drained area, food demand, food production and security etc. at Montpellier meeting.

5. Dr. Rajinder Kumar Gupta, Direct Member (India) was accepted as Provisional Member of the WG at Gwangju meeting in 2014. Dr. Gupta has submitted an abstract of his paper "Sharing of international river basin experiences – Mekong River in Lao PDR" for presentation during the WG meeting. Chairman/ Vice Chairman may apprise the group.

WG-IDSST Agenda Item 4: Monitoring and evaluation of common problems in states with economy in transition

6. VPH Dukhovny has summarized the reports presented by Ukraine, Russia, Kazakhstan, Tajikistan and Uzbekistan, bringing out the major problems of the states as:

- (a) Not completed restructuring of agricultural structures that effected transformation processes in IAD;
- (b) Not enough attention of governments in most of the states;
- (c) Low level of institutional organization on the former network of the state farms that are now replaced by private and rented farms with water user associations (WUAs);

- (d) Salinity and waterlogging problems; and
- (e) Weaknesses in financial mechanisms - interrelations between water management organizations and water users.

7. VPH Prof. Dukhovny requested members to reassess above and requested all members to provide their comments so that it can be uploaded on the website (both in Russian and English version) by the year 2015. Chairman/ Vice Chairman will apprise the group.

WG-IDSST Agenda Item 5: Create database on irrigation and drainage in the countries of transition

8. Chair made the format of the 'New survey' for circulation and compilation. In June 2015, VPH Peter Kovalenko informed that in spite of his repeated requests there was no response from the National Committees in updating the survey.

9. The National Committees of Russia, Ukraine, Kazakhstan, and Eastern European countries have been requested to give the analysis of the causes for reduction in the irrigated area in their countries. Members may present the situation in their countries. Chairman/ Vice Chairman may apprise the group.

WG-IDSST Agenda Item 6: Development of appropriate advanced irrigation and drainage technologies

10. A joint meeting with the representatives of irrigation and water organizations of New Independent States (NIS) countries on "*Water saving and rational use of irrigated lands – ways to survive in present condition of water crisis*" was organized during 20-21 November 2014 at Bishkek, Kyrgyzstan. VPH Prof. Dukhovny informed that all reports presented during the meeting were prepared for publication in the Scientific-Information Center of the Interstate Coordination Water Commission of the Central Asia (SIC ICWC) collection. It is proposed that the reports prepared will be published as proceedings. Central Office is ready to undertake the printing of the publications, once final version is made available in print-ready format.

Chairman/ Vice Chairman may apprise the group.

WG-IDSST Agenda Item 7: Create awareness about irrigated/ drained agriculture (capacity building)

11. The Regional Conference of CGIAR for Central Asia and Caucasia in Ferghana, Uzbekistan demonstrated methodology for field experiences in irrigated/drainage agriculture. Dr. Shukhrat Mukhamedjanov may provide further progress on the dissemination of the methodology.

Chairman/ Vice Chairman may apprise the group.

WG-IDSST Agenda Item 8: Exchange of information (video/audio conferencing)

12. As a new initiative, at the 65th IEC meeting held at Gwangju in September 2014, it was decided that the Working Groups should organize a WebEx meeting or a video-conference in between two face to face meetings during the IEC in order to enable the group to take a view of the progress made of their activities and at the same time allow contributions from those members who were unable to attend the meetings. During the last year, a number of workbodies availed of this opportunity. Chair may like to plan (date) such a meeting in consultation with Central Office. The Central Office will then take over and do the rest of the organization at no cost and efforts on part of WG members. They have to simply make themselves available on the decided date and time.

WG-IDSST Agenda Item 9: Summary of activities, Closure report and revised mandate of the WG

13. A summary report for the previous tenure (2009-2015) of the WG has been prepared and circulated to members. The Chair may highlight the achievements of the WG.

14. Since the current tenure of the WG is up to 2015, it is envisaged to prepare a closure report by the Chairman covering technical output of the WG. The Closure Report need to be presented in the meeting. The Chair and the group may like to prepare a draft as above and decide as appropriate at the meeting.

WG-IDSST Agenda Item 10: Any other business

15. In April 2015, Mr. Bakhrom Gafarov (Tajiksitan) informed that they have sent the draft decree on the establishment of the National Commission on Irrigation and Drainage to the Government for approval. Mr. Bakhrom Gafarov has been requested to provide further development on the draft decree and also about new Water Code.

16. Chairman/ representative from Tajikistan may apprise the group and initiate development of public-private partnerships.



NOTES FOR CHAIRPERSON:

1. Draft minutes of this meeting to be submitted to ICID Secretariat at Montpellier (France) after the meeting.
2. Chair to participate and present the WG report to PCSO meeting on 15 October 2015.

A. Attendance of Members at 2013 and 2014 Meetings

| Sl. No. | Members | Member from | 2013 | | 2014 | | Remarks |
|--|--|-------------|----------------|---------------------|------|---------------------|--|
| | | | Self | Contributed by mail | Self | Contributed by mail | |
| 1. | VPH Prof. Peter Kovalenko, Chairman (Ukraine) | 2009 | • | | | • | Recommended to be an Observer since Ukraine has become an Associate Member |
| 2. | VPH Prof. Victor A. Dukhovny, Vice Chairman (Uzbekistan) | 2009 | • | | • | | |
| 3. | Dr. Shukhrat Mukhamedjanov, Secretary (Uzbekistan) | 2014 | • | | | | Attended as Observer in 2013 and contributed five reports in 2015 |
| 4. | Mr. Bernard Vincent (France) | 2009 | | | | | Recommended discontinuation |
| 5. | Dr. Katsuyuki Shimizu (Japan) | 2013 | • | | • | | |
| 6. | Dr. Rajinder Kumar Gupta - Direct Member (India) | 2014 | | | | | Contributed an abstract of the paper in 2015 |
| 7. | Dr. Alexander Solovyev (Russia) | 2014 | | | • | | |
| 8. | Engr. Peter Yakube Manjuk (Nigeria) | 2014 | | | • | | |
| 9. | Secretary General, ICID | | # ¹ | | # | | |
| Permanent Observers / Observers | | | | | | | |
| (i) | Prof. Daene C. McKinney (IWRA) | | | | | | |
| (ii) | FAO Representative | | • | | | | |
| (iii) | World Bank representative | | | | | | |

B. New nomination received from the National Committee

| Sl. No. | Name | Country | Remarks |
|---------|------------------------------|------------|---------|
| (1) | Mr. Baratov Rustam Okilovich | Tajikistan | |

¹ # Through representation

**AGENDA FOR THE 22ND MEETING OF THE
ASIAN REGIONAL WORKING GROUP (ASRWG)**

13 October 2015, 11.00-12.30 hours
Montpellier, France

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.

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

ASRWG Agenda Item 1: Action taken report by Chair

1. The Chairman may like to present report on the actions taken on the various decisions/ proposals of the working group at the 21st WG meeting at Gwangju, Korea.

ASRWG Agenda Item 2: Membership of the Working Group

2. In order to increase the efficiency and functioning of the Working Group during annual face to face meeting and avoid spending a lot of time on administrative matters, MB has decided that the admission of new members or discontinuation of the membership of the group will be dealt by Chairman in consultation with Vice Chair, Secretary and ICID Central Office prior to the meeting itself through emails/ web conference.

3. New nominations received are: Dr. Mochammad Amron in place of Mr. Siswoko (Indonesia); Prof. (Ms.) Kyung Sook Choi in place of VPH Prof. Tai Cheol Kim (Korea); Dr. Gwo-Hsing Yu in place of Dr. Sheng-Feng Kuo (Chinese Taipei), Mr. Stephen Mills in place of Dr. W.F. Vlotman (Australia) for the membership of the group. Accordingly, Chairman in consultation with Vice Chair, Secretary of the WG and the Central Office have accepted and updated the membership of the WG as given at **Annex 1** (see the electronic version for the latest list). Any new nominations for the membership received during the meeting will be dealt suitably after the meeting.

SUPP.: The Uzbekistan National Committee on Irrigation and Drainage (UzNCID) has nominated Mr. Jo'rayev Ilhom Usmanovich for the membership of the Working Group.

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

ASRWG Agenda Item 3.1: 7th World Water Forum (WWF7)

4. The 7th World Water Forum (WWF7) was held in Daegu and Geyongbuk, South Korea from 13-18 April 2015. ICID worked together with FAO and other partners to develop sessions as part of Theme 2.1, "Water for Food", and the Thematic Process to discuss current and potential progress in six key focus areas. These six key focus areas considered central for improved water use for the sustainable production of crops, livestock, and fish are: (a) Best available technology to make efficient use of water in agriculture; (b) Water quality management for agriculture and environment; (c) Modernization of irrigation schemes; (d) Adaptation to changing environmental circumstances to increase sustainability; (e) Increasing farmers' capacities in water use for agriculture; and (f) Governance and policies to manage transitions in water use for agriculture. VPH Dr Shinsuke Ota (Japan), as convener of the ICID Task force on WWF7, assisted by JNCID, coordinated these activities successfully.

5. ICID together with KCID organized thematic session 2.1.3 on "Modernization of irrigation / drainage schemes for food security, rural prosperity and poverty alleviation". This key focus area relates to the importance of irrigated agriculture for current and future food production. Modernization of irrigation schemes is essential to sustain and enhance productivity of irrigated agriculture under the limited water resource availability. On behalf of ASRWG, VPH Dr. Shinsuke Ota also contributed to the Thematic Session on "Water-Food-Energy Nexus". ICID/ASRWG thus made great contribution to the 7th World Water Forum (WWF7).

6. VPH Dr. Ota / Mr. Naoki Hayashida has been requested to further appraise the working group on the contributions of ASRWG to the WWF7.

ASRWG Agenda Item 3.2: Regional cooperation between TUCID-IRNCID

7. A MoU on bilateral collaboration between Iranian National Committee on Irrigation and Drainage (IRNCID) and Turkish National Committees on Irrigation and Drainage (TUCID) was signed in October 2013 with the main objectives of exchanging technical and scientific experiences made based on the progress and achievements within the Irrigation and Drainage sector. A delegation from IRNCID visited various water resources structures and Water Users Association in Turkey from 16-22 May 2015. The expert delegation visited different parts of the GAP Projects. The mutual technical exchange and discussion sessions were held between the IRNCID delegation and the DSI Regional Management teams.

8. Similarly, four-day technical tour (22-25 December 2014) by a Turkish Team from General Directorate of State Hydraulic Works (DSI), Turkey was organized to observe and learn from the irrigation projects in Khuzestan Province, Iran.

The Chairman/representatives from Iran and Turkey may further apprise the members.

ASRWG Agenda Item 3.3: Report on PAWEES International Conference 2014

9. An International Conference on the theme 'Sustainable Water and Environmental Management in Monsoon Asia' was held during 30-31 October 2014 at Kaohsiung, Taiwan, organized by the International Society of Paddy and Water Environment Engineers (PAWEES).

10. Vice Chairman Prof. Tai-Cheol Kim (Korea), Prof. Yohei Sato (Japan), and Prof. Tsugihiko Wantanabe (Japan), President of Japanese Society of Irrigation, Drainage and Rural Engineering presented keynote speeches during the Opening Ceremony.

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

11. ICID Central Office prepared the draft Terms of Reference (ToRs, Annex 2) for PAWEES-ASRWG collaboration and shared with VPH Karim Shiati (Chairman), VPH Prof. Kim (Vice Chairman), Prof. (Ms.) K.S. Choi (Korea) and Prof. Tsugihiko Wantanabe (Japan), the President of PAWEES for their perusal and further improvement.

12. The WG may discuss these ToRs and bring out a clear and exact proposal of ICID to PAWEES, including objectives and expected outcomes.

The Chairman / Prof. (Ms.) Choi may further apprise the WG members on the subject.

ASRWG Agenda Item 5: Work Team on "Contribution of Agricultural Water to the Rural Development in Asia" – Internal workshop

13. At Gwangju, Korea, VPH Prof. Kim made a presentation on the activities of ASRWG-Work Team on "*Contribution of agricultural water to the rural development in Asia*". The mandate, scope, duration, method, timeframe and finalization of the report by ASRWG-WT is given at **Annex 3**. Five papers were received in the 1st internal workshop held at Mardin in 2013, while 3 papers were presented during the 2nd Internal Workshop of WT at Gwangju in 2014.

14. As per the mandate of the ASRWG-WT, a draft call-for-papers for organization of the 3rd internal workshop was circulated to all National Committees and members of the ASRWG. In response, Dr. Rajinder Kumar Gupta – Direct Member (India) has informed that he will present a paper on "*Utilization of water resources of Mekong River in Lao PDR for agriculture and socio-economic development*" at Montpellier. VPH Prof. Kim has informed that he has received one abstract from Sri Lanka.

The Chairman/Prof. (Ms.) Choi may apprise the WG members.

ASRWG Agenda Item 6: 8th Asian Regional Conference

15. In August 2015, the Iranian National Committee (IRNCID) has shown its interest in hosting the 8th Asian Regional Conference simultaneously with the 13th International Drainage Workshop in Ahvaz City, Khuzestan Province, Iran in March 2017. ICID Central Office has requested IRNCID to send the proposal covering objective, period of conference etc. Response is awaited.

16. Chairman/ IRNCID representative may apprise further status of the proposal so that it can tabled at PCSO meeting for their concurrence/ recommendation to IEC.

ASRWG Agenda Item 7: Publications of the Working Group

17. The final Technical Report of ASRWG-WT entitled “ *Contribution of Agricultural Water to the Rural Development in Asia*” will be published in 2017 (Mexico) and will contribute to WWF8 in 2018. The existing work plan of the group is given in **Annex 4** and Chair may like to update the work plan at Montpellier.

ASRWG Agenda Item 8: Any other business

18. The WG members express their thanks and gratitude to VPH Prof. Kim for his devoted contributions to the activities of the WG since 2006. Prof Kim desires to step down due to his retirement in Korea.



NOTES FOR CHAIRPERSON:

1. Draft minutes of this meeting to be submitted to ICID Secretariat at Montpellier (France) after the meeting.
2. Chair to participate and present the WG report to PCSO meeting on 15 October 2015.

(A) Membership of Asian Regional Working Group (ASRWG)

| Sl. No. | Countries (Year of joining) | Present representatives (Year of Joining) | Remarks |
|---------|-----------------------------|---|---|
| 1. | Iran (1955) | VPH Karim Shiati, Chairman, 2006 (1997) | Attended meetings in 2013 & 2014 and contributed |
| 2. | Korea, Republic of (1970) | VPH Prof. Tai-Cheol Kim, Vice Chairman, 2007 (2006) | Attended meetings in 2013 & 2014 and contributed |
| 3. | Bangladesh (1973) | Representative from BANCID | BANCID requested to send nomination for the Group |
| 4. | China (1963) | Mr. Wang Xiodong (2008) | Attended meeting in 2013 and represented in 2014 |
| 5. | Chinese Taipei (1969) | Mr. Sheng-Feng, Kuo (2001) | Represented in 2013 & 2014 |
| 6. | India (1950) | Dr. Kota Tirupataiah (2012) | No contribution during last 2 years |
| 7. | India (1950) | Dr. Rajinder Kumar Gupta -Direct Member (WAPCOS) (2014) | Contributed an abstract for internal workshop in 2015 |
| 8. | Indonesia (1950) | Mr. S. Siswoko (2002) | Represented in 2013 & 2014 |
| 9. | Iraq (2006) | Representative from IRQCID | IRQCID requested to send nomination for the Group |
| 10. | Japan (1951) | Mr. Naoki Hayashida (2014) | Attended meeting in 2014 |
| 11. | Kazakhstan (2006) | Representative from KAZCID | KAZCID requested to send nomination for the Group |
| 12. | Malaysia (1958) | Ir. Syed Abdul Hamid bin Syed Shuib (2013) | Attended meetings in 2013 & 2014 |
| 13. | Nepal (1973) | Mr. Uttam Raj Timilsina (2011) | Attended meeting in 2013 and contributed in 2014 |
| 14. | Pakistan (1953) | Representative from PANCID | PANCID requested to send nomination for the Group |
| 15. | Philippines (1956) | Representative from PNC-ICID | PNC-ICID requested to send nomination for the Group |
| 16. | Saudi Arabia (1977) | Representative from SACID | SACID requested to send nomination for the Group |
| 17. | Sri Lanka (1950) | Representative from SLNICID | SLNICID requested to send nomination for the Group |
| 18. | Tajikistan (1997) | Representative from TAJCID | TAJCID requested to send nomination for the Group |
| 19. | Thailand (1950) | Mr. Arthon Suttigarn (2012) | Attended meetings in 2013 & 2014 |
| 20. | Turkey (1954) | Dr. Aynur Fayrap (2012) | Attended meetings in 2013 & 2014 |
| 21. | Uzbekistan (1994) | Representative from UzNCID | UzNCID requested to send nomination for the Group |

B. New nominations received from the National Committees

| SI. No. | Name | Country | Remarks |
|---------|---|--------------------|---|
| (1) | Dr. Mochammad Amron in place of Mr. Siswoko | Indonesia | Recommended, subject to his presence or else Provisional Member |
| (2) | Prof. (Ms.) Kyung Sook Choi in place of VPH Prof. Tai Cheol Kim | Korea, Republic of | Recommended, subject to her presence or else Provisional Member |
| (3) | Dr. Gwo-Hsing Yu in place of Dr. Sheng-Feng Kuo | Chinse Taipei | Recommended, subject to his presence or else Provisional Member |
| (4) | Mr. Stephen Mills in place of Dr. W.F. Vlotman | Australia | Recommended, subject to his presence or else Provisional Member |
| (5) | Mr. Jo'rayev Ilhom Usmanovich | Uzbekistan | Recommended, subject to his presence or else Provisional Member |



COLLABORATION BETWEEN PAWEES-ICID

Party A: International Commission on Irrigation and Drainage (ICID)

Party B: International Society of Paddy and Water Environment Engineering (PAWEES)

Terms of Reference (ToR)

1. Promote better understanding and strengthen relationship between PAWEES and ICID
2. Exchange technical and scientific knowledge and achievements on paddy irrigation and drainage
3. Organizing joint meetings and participate in the conferences/ seminars/ workshops organized by either party.
4. Contribute to the activities of the ICID Work Team on '*Contribution of Agricultural Water to the Rural Development in Asia*'
5. Focus areas for collaboration
 - A. Water saving techniques in paddy cultivation
 - i. Current water saving practices
 - ii. Irrigation methods (surface irrigation and drip/ sprinkler irrigation)
 - B. Reducing GHG emissions
 - i. Carbon sequestering capacities



WORK TEAM ON THE "CONTRIBUTION OF AGRICULTURAL WATER TO THE RURAL DEVELOPMENT IN ASIA"

1. **Name of WT:** "Contribution of Agricultural Water to the Rural Development in Asia"
2. **Mandate:** How to contribute the development of rural society in Asia with water
 - (a) Suggest the technical and policy directions and prospects.
 - (b) Suggest the sustainable water management and development and the improvement of the livelihood of rural community
3. **Scope:** Case study on irrigation project including template (Domestic fund project, foreign grant/loan project, Comprehensive rural development, Small & large-scale irrigation project, and ODA project from both from a receiving and donating side, etc.)
4. **Duration:** 2013 – 2018 (5 years)
5. **Method:**
 - (a) Present case studies from WT members at the ASRWG meeting (2013-2015 or 2017)
 - (b) Submit manuscripts on irrigation project from WT members to Chairman
 - (c) Collaboration with PAWEES and INWEPF for the paper collection
 - (d) Organize the int'l workshop by WT and/or FAO-RAP during ICID events. Presentation from invited non-WT members and other contributions from the leading country and organization, if budget is retained from KCID
 - (e) Participate at SS on New partnership for rural development.
 - (f) Participate at WWF-7 in 2015 to disseminate the Interim report.
6. **Final report (in 2017 and contribute to WWF-8 in 2018) edited by WT members**
 - (a) Survey the case study and reference on the topic from domestic and int'l report
 - (b) Select papers/reports from ASRWG, FAO-RAP, PAWEES/INWEPF, JICA, KOICA etc.
 - (c) WT member's role:
 1. Each member presents case studies of irrigation project with template reply during ASRWG and/or submits them to the Chairman
 2. Collect papers and edit a final report
7. **WT draft time schedule**

| Time | Activity | Members involved | Remark |
|------|---|---|---|
| 2013 | 1 st WT workshop at Mardin IEC (internal WS in ASRWG) | Taiwan, Turkey, Iran, Japan, Korea, Thailand | Mardin, Turkey |
| 2014 | 2 nd WT Workshop at Gwangju, Korea Leading Int'l agencies, Policy on ODA project for rural development | WT- Malaysia, Taiwan, Thailand, Japan, Iran, India, Korea, Turkey (8), Indonesia, Philippines, Laos, India, Iraq, Nepal, Pakistan, Myanmar, Uzbekistan, Cambodia, China (11) etc. FAO, ADB, JICA, IWMI, KOICA.(5) | Seoul, Korea During the Congress |
| 2015 | 3 rd WT workshop at Montpellier IEC (internal WS in ASRWG) Contribute to WWF-7 in Daegu, Korea | WT members and Chairman | Montpellier, France, |
| 2016 | 4th WT workshop (internal WS in ASRWG) | WT member and Chairman | Chiang Mai, Thailand 2 nd WIF |
| 2017 | Collect and select papers Publish Final report | WT members and Chairman | Mexico |
| 2018 | Contribute to WWF-8 | WT members and Chairman | |

WORK PLAN OF THE GROUP

| Activity | 2014 | 2015 | 2016 |
|---|---|---|---|
| Linkages for International Cooperation WT-PAWEES-ICID Collaboration | Establishment of ASRWG-WT to develop action plan for collaboration Research projects with PAWEES at PAWEES Conference, Taiwan, 2014 President, PAWEES at ASRWG meeting | | |
| ASRWG-WT on "Contribution of Agricultural Water to the Rural Development in Asia" | Organized 2 nd internal Workshop, Gwangju, Korea | Contributed to WWF7 in Daegu, Korea 3 rd WT workshop at Montpellier, France | 4 th WT workshop at Chiang Mai, Thailand |
| Technical Report by WT on "Contribution of Agricultural Water to the Rural Development in Asia" | Present manuscript of the first internal workshop, Gwangju, Korea | Present manuscript of the second workshop / WT | Present manuscript of the third workshop/ WT |
| MoU – TUCID and IRNCID | TUCID delegates visited Irrigation Schemes in Iran | IRNCID delegates visited Irrigation Schemes in Turkey | |



APPENDIX V [PCSO Item 7.1]

**AGENDA FOR THE 26TH MEETING OF THE
AFRICAN REGIONAL WORKING GROUP (AFRWG)**

13 October 2015, 11.00-12.30 hours
Montpellier, France

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.

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

AFRWG Agenda Item 1: Action taken report by Chair

1. The Chair may like to present a report on the actions taken on the decisions and proposals made in the last WG meeting held at Gwangju, Korea.

AFRWG Agenda Item 2: Review of membership of the group and countries

2. In order to increase the efficiency and functioning of the Working Group during annual face to face meeting and avoid spending a lot of time on administrative matters, MB has decided that the admission of new members or discontinuation of the membership of the group will be dealt by Chairman in consultation with Vice Chair, Secretary and ICID Central Office prior to the meeting itself through emails/ web conference.

AFRWG Agenda Item 2.1: Membership of the group

3. During Gwangju meeting, VPH Dr Backeberg recommended to elect a new Vice Chairman and a Secretary of the group. Interested members may step forward to take up the responsibility as Vice Chair and Secretary of the WG. Chairman may like to apprise WG status in this regard.

4. As per decision in the 2014 Gwangju meeting, the National Committees of Tanzania, Burkina Faso, Chad, Madagascar, Malawi, Morocco, Niger, Tanzania, Zambia, and Zimbabwe were requested to nominate a representative to the group. In response, National Committee of Burkina Faso (CNID-B) has nominated Mrs. Salamata Karambiri MIWENDE for the membership of the WG. National Committees of Chad and Malawi have also responded however, nomination is yet to be received.

SUPP.: Chad National Committee (TChad) has nominated Mr. Tchouadang Kadjonga for the membership of the group. Zambian National Committee (ZACID) has nominated Mr. Mulako Cornelius Sitali for the membership of the group.

5. Accordingly, the updated membership of the WG based on the nominations received as of now can be seen in **Annex 1** (see the electronic version for the latest list). Any new nominations for the membership received during the meeting will be dealt suitably after the meeting.

AFRWG Agenda Item 2.2: Membership of African countries

6. VPH Dr. Gerhard Backeberg informed in May 2015 that there is some progress in establishment of National Committee in DRC and Swaziland but it may not be formalized before the Montpellier IEC meeting. Chairman and VPH Dr. Backeberg may like to apprise WG on the efforts made and present status of membership of African countries who are yet to become member of ICID.

7. The National Committee of Sudan has reactivated its membership by paying the membership subscription for the years 2015 and advance subscriptions for the years 2016 to 2019. AFRWG heartily welcomes Sudan for joining the ICID.

AFRWG Agenda Item 2.3: Regional Irrigation Association : ARID, SARIA, NARAID

8. During the workshop on 'Role of Micro-Irrigation in Ensuring Water and Food Security in the Arab World' as a side event of 3rd Arab Water Forum (AWF3) on 11 December 2014 for the North African countries, Vice President Dr. Wahba made a presentation on 'About the ICID and how it works & how it serves its members?' and towards establishing Northern African Regional Association for Irrigation and Drainage (NARAID) with its background, mission and objectives. At the end of the workshop, the role of NARAID and future actions required for establishment were discussed in detail. VP Dr Wahba has been requested to apprise members on latest status of establishment of NARAID.

AFRWG Agenda Item 3: Progress on implementation of the action program for Africa

AFRWG Agenda Item 3.1: Developments in irrigation and allied issues

9. During the last meeting, Secretary General, ICID encouraged Members to share policy documents (being developed in member countries) with the Central Office. The Chair Dr. Sylvester Mpandeli also indicated that regional information sharing was also essential and encouraged members to circulate such information. All National Committees / representatives in Africa region are requested to share such information so that it can be disseminated amongst all and also post it on ICID website. Members are once again requested to provide suggested information for wider dissemination. Chairman and members may like to discuss and provide further updates at the meeting.

AFRWG Agenda Item 3.2: Strategy for capacity building in Africa

10. At Gwangju meeting, it was agreed that regional associations would provide their input by the 1st of December 2014 and African Regional Capacity Building Strategy including work plans would be ready as a first draft by the 1st of April 2015. Accordingly, in October 2014, Chair Dr. Sylvester Mpandeli circulated a draft workplan framework for the capacity building strategy for Africa and requested all members and observers (who attended the Korea meeting in 2014) to send the information for work plan. VPH Dr. Samia El-Guindy in October 2014 shared a brief note on 'Focus areas for North Africa Region' (**Annex 2**) and a note on training facility for African Regions in Egypt¹ (**Annex 3**).

11. Based on input received from the members, Chair Dr. Sylvester Mpandeli finalised the AFRWG Capacity Building Strategy 2015² and shared it with ICID Central Office in May 2015 which is available on ICID web site at <http://afrwg.icidonline.org/>. Capacity Building Strategy 2015 identified reduction in the scourge of poverty, food insecurity and malnutrition as important priorities for Africa and suggested to intensify research, development and technology transfer efforts in ICID member countries in order to meet the growing demand for food, and to reduce the impact of food insecurity. For eastern and southern Africa, four priority focus areas identified are (i) homestead food garden water use; (ii) rainfed crop water use; (iii) irrigation crop water use; and (iv) aquaculture while for western and central Africa focus areas identified are (i) information on techniques and technologies, (ii) small scale irrigation, (iii) agro economical aspects of farms, (iv) database of professionals, tools, equipments, (v) certification of professional and equipments, (vi) regional program and projects, (vii) innovation and technology transfer, (viii) policies and strategies (ix) observatory of irrigation systems etc.

12. ICID is proposing to organize a short training course in February 2016 in India or any other country for participants from Africa covering some of the critical issues and priority areas identified in AFRWG Capacity Building Strategy 2015. Dr. Mpandeli has suggested to include following themes for training course (i) revitalisation of irrigation schemes, and (ii) training for extension advisors in irrigation water management.

The group may like to deliberate on the AFRWG Capacity Building Strategy 2015 and finalise the draft submitted by the Chair at the meeting.

AFRWG Agenda Item 4: Publicizing working group's activities through a Newsletter and other International publications

13. During the last meeting, members of the group agreed to submit reports on any events or activities which could be circulated through the Chairman. It was also agreed that Engr. Sangare would prepare and submit a report on the 3rd African Regional Irrigation Conference held in Mali in 2011 which is still awaited.

¹ Regional Center for Training and Water Studies in Arid and Semi-Arid Zones (RCTWS), a large-scale institution with international recognition, established in partnerships with IHE (The Netherlands) and the UNESCO.

² Draft AFRWG Capacity Building Strategy 2015 was circulated to all members in March 2015 with request to provide their inputs by end of April 2015.

Since information is not forthcoming, Chairman and members may like to deliberate on this issue so that information is made available for its wider dissemination.

AFRWG Agenda Item 5: Exchange of information (video/audio conferencing)

14. As a new initiative, at the 65th IEC meeting held at Gwangju in September 2014, it was decided that the Working Groups should organize a WebEx meeting or a video-conference in between two face to face meetings during the IEC in order to enable the group to take a view of the progress made of their activities and at the same time allow contributions from those members who were unable to attend the meetings. No WebEx meeting or a video-conference could take place due to hectic schedule of the Chairman and members in organizing the SARIA Workshop in March 2015 and other activities. WG may consider organizing such a meeting in future in consultation with the Central Office.

AFRWG Agenda Item 6: Outcome of SARIA Workshop, March 2015, Pretoria

15. The Southern African Regional Irrigation Association (SARIA) organized a workshop with the theme "Rainwater harvesting and conservation on crops lands" and a Steering Committee meeting from 17-19 March 2015 at Pretoria, South Africa. A brief report of the SARIA workshop held in March 2015 is given as **Annex 4**.

16. On 19 March 2015, a Steering Committee meeting was organized in which representatives of South Africa, Malawi, Mozambique, Zimbabwe, Botswana, Democratic Republic of Congo, Republic of Tanzania, Namibia, Swaziland and Lesotho presented the activities of the National Committees on irrigation issues. The steering committee meeting discussed following issues (i) strategic roles and actions for a viable SARIA in the next few years, (ii) including aquaculture and fisheries as part of the SARIA capacity building and knowledge exchange for the year 2016 in Lilongwe, Malawi, and (iii) organisation of SARIA Symposium/ Workshop in 2017 as part of the review process of all the thematic areas identified since 2012.

17. Further Steering Committee agreed on following as way forward: (i) SARIA plan to organise a training workshop and Steering Committee Meeting in Malawi in 2016. The theme for the 2016 SARIA workshop will be on "Rural Freshwater Aquaculture", and (ii) SARIA to organise a symposium/ workshop in 2017 to review all the thematic areas identified by SARIA member states based on the capacity building strategy. It is proposed that the event will be open to community of practice and also other relevant stakeholders. During this event, SARIA members will also have opportunities to identify new thematic areas based on the needs and priorities from its members.

AFRWG Agenda Item 7: 4th African Regional Conference, 26-28 April 2016, Cairo, Egypt

18. The Management Board (MB) at its 1st Virtual Meeting (1/15) held on 28 February 2015, accepted in principle the proposal of the Egyptian National Committee for Irrigation and Drainage (ENCID) for hosting the 4th African Regional Conference on Irrigation and Drainage (ARCID) at Cairo, Egypt, from 26-28 April 2016. The theme of the conference is "Agricultural Land and Water Management for Sustainability under Climate Variability" with three topics viz. (a) Water Use Management; (b) Food Security; and (c) Research Extension Services and Capacity Development. The draft themes and sub-themes submitted by ENCID in March 2015 were finalized in consultation with Chair and members of AFRWG, PCTA Chair and VPH Gerhard Backeberg. The Group may like to endorse these themes and sub-themes.

19. During the Conference, three keynote speeches will also be organized on topics (a) Farm and science interface under climate change, (b) Improving agricultural water management in Africa, and (c) Water-Food-Energy nexus challenges at the farm level. The announcement and Call for Papers of the 4th ARCID have been circulated amongst ICID National Committees and International Organizations for dissemination. For more information, please access the Conference website (<http://www.encid.org.eg>). All members are requested to participate in the Conference and contribute through papers/ presentations.

AFRWG Agenda Item 8: Website of the working group

20. In order to enrich the website of WG (<http://afrwg.icidonline.org/>), members are requested to provide additional material/ documents/ reports/ articles to ICID Central Office for its posting on the group's website.

AFRWG Agenda Item 9: Any other business

AFRWG Agenda Item 9.1: Workshop on 'Role of Micro Irrigation in ensuring water and food security in the Arab world' during 3rd Arab Water Forum, December 2014, Cairo, Egypt

21. The 3rd Arab Water Forum (AWF3) was organized by the Arab Water Council (AWC) from 9 to 11 December 2014 at Cairo, Egypt. The Forum was organized with main theme as 'Together Towards a Secure Arab Water Future' and three sub-themes: (a) Integrated Water Resources Management: Achievements and Constraints; (b) Arab Countries Actions for Sustainable Development of Water Resources and Water Services; and (c) Arab Integration for Food Security under Water Scarcity.

22. The Egyptian National Committee on Irrigation and Drainage (ENCID) in cooperation with ICID organized a workshop on 'Role of Micro-Irrigation in Ensuring Water and Food Security in the Arab World' as a side event on 11 December 2014 for the North African countries. The workshop was led by VPH Dr. Mohamed Hassan Amer, Chairman of the ENCID and Dr. Mohamed Wahba, Vice President, ICID and Secretary General of ENCID. About 15 participants attended the workshop. The papers titled 'Comparison of Micro Irrigation Systems for Olive Trees' and 'Micro-Irrigation Systems for Vegetable Production under Green Houses' were presented by Dr. Atef Nassar and Dr. Abdrabo Shehatta from Water Management and Irrigation Systems Research Institute, National Water Research Center (NWRC), Egypt, respectively.

Chairman/ representative of ENCID may apprise the group.



NOTES FOR CHAIRPERSON:

1. Draft minutes of this meeting to be submitted to ICID Secretariat at Montpellier (France) after the meeting.
2. Chair to participate and present the WG report to PCSO meeting on 15 October 2015.

Annex 1 [Appendix V, Item 2.1]

(A) Membership of African Regional Working Group (AFRWG)

| Sl. No. | Countries (Year of joining) | Present representatives (Year of Joining) | Remarks |
|--------------------------------------|-----------------------------|--|--|
| 1. | South Africa | Dr. Sylvester Mpandeli, Chairman (2013) | Attended meetings in 2013 & 2014 and contributed |
| 2. | Mali | Engr Aliou Bamba, Vice Chairman (2011) | No contribution during last 2 years. Discontinuation recommended. New Vice Chair to be elected |
| 3. | Ethiopia | Mr. Fethi Lebdi, Interim Secretary – AgWA (2013) | May like to elect a new Secretary |
| 4. | Egypt | VPH Dr. Samia El-Guindy (2010) | Attended in 2014 |
| 5. | Nigeria | Engr. Joe Kwanashie (2014) | |
| 6. | Chad (2012) | Representative from ATID | ATID requested to send nomination for the Group |
| 7. | Madagascar (2014) | Representative from MADCID | MADCID requested to send nomination for the Group |
| 8. | Malawi (1967) | Representative from MALCID | MALCID requested to send nomination for the Group |
| 9. | Morocco (1959) | Representative from ANAFIDE | ANAFIDE requested to send nomination for the Group |
| 10. | Niger (2007) | Representative from ANID | ANID requested to send nomination for the Group |
| 11. | Sudan (2015) | Representative from SNCID | SNCID requested to send nomination for the Group |
| 12. | Tanzania (2011) | Representative from TANCID | TANCID requested to send nomination for the Group |
| 13. | Zambia (1966) | Representative from ZACID | ZACID requested to send nomination for the Group |
| 14. | Zimbabwe (1955) | Representative from ZICID | ZICID requested to send nomination for the Group |
| Observers/Permanent observers | | | |
| 1. | | FAO Representative | |
| 2. | | World Bank Representative | |
| 3. | Italy | Mr. Jean Syroganis Camara | |
| 4. | Italy | Mr. A. de Vito | |
| 5. | | ARID Representative | |
| 6. | | SARIA Representative | |
| 7. | | AgWA Representative | |

B. New nomination received from the National Committees

| Sl. No. | Name | Country | Remarks |
|---------|---------------------------------|--------------|--|
| (1) | Mrs. Salamata Karambiri MIWENDE | Burkina Faso | Recommended for membership, subject to her presence or else Provisional Member |
| (2) | Mr. Tchouadang Kadjonga | TChad | Recommended for membership, subject to his presence or else Provisional Member |
| (3) | Mr. Mulako Cornelius Sitali | Zambia | Recommended for membership, subject to his presence or else Provisional Member |

Annex 2 [Appendix V, Item 3.2]

FOCUS AREAS FOR NORTH AFRICA REGION

Follow the regional needs and Challenges, the following examples of the proposed capacity building modules could be considered³:

1. Integrated water resources management (IWRM)

Integrated water resources management (IWRM) addresses, economic efficiency, environmental sustainability and equity of water resources. It addresses the management of water as resources and the frame work for provision of water services to all categories of users. It covers both water quantity and quality.

The program should focuses on the integration of discipline for the comprehension management of water resources and to stimulate professionals to work in a multidisciplinary environment.

The main three pillars in IWRM are: Enabling environment of appropriate policies and laws, Institutional roles and framework, Management instruments for institutions to apply on daily basin.

2. Water Resources and Hydro informatics

Water resources data, in particular hydrological and hydro geological data, are essential for planning, designing and operating water projects. Modernization of hydrological work is essential. Automatic measuring devices can provide more reliable and continuous recording of data, transmission by radio or satellite allows the immediate access to data and a remote control of the operation of the stations and the use of computers together with specialized software facilities, data processing including the quality control of data. So the program will cover the means and technology for adequate planning and projects preparations.

There are good tools for water resources assessment and data acquisition and analysis. These are remote sensing, geographical information system (GIS), and the use of models to predict quantity and quality of water resources.

3. Shared water resources development and management

Water management can be considered at the National, regional, basin and local levels. At each level, the logical management of water as a unitary source requires. Functional linkages in agency responsibilities for water surface and subsurface, water quantity and water quality. This program will address water issues such as: Design management interactions, Managing water quantity and quality, Supply management both of conventional and nonconventional water resources, Demand management: which can take many forms, from direct measures to control water use, to indirect courses that affect (market mechanisms, financial incentives, and public awareness programs)

4. On-Farm Water Management {Irrigation / Drainage}

During the last decades, new irrigation and drainage systems have been constructed and old systems have been modernized or rehabilitated. Systems manageability and sustainability under present and future conditions are the main pillars to gain the optimum benefit from a farm. Integrated management requires a flexible and positive response to social, traditional and institutional settings together with the technical aspects.

5. Groundwater management in the frame work of IWRM

One of the important water resources is the ground water and its availability both in quantity and quality. Groundwater resources are essential to satisfy the over growing needs of population in Africa. The module course could cover the essential knowledge of how to manage ground water in the frame work of integrated water resources management.

³ **References:** (1) World Bank 1994. A Strategy for Managing Water in Middle East and North Africa. Directions in Development, Washington, D.C World Bank; (2) World Bank 2002. Making the Most of Scarcity, MENA Development Report.

The program exposes the professionals to new ideas, new concepts and new approaches in groundwater development utilization and management.

6. Non-conventional water resources

Due to the shortage of freshwater resources in the region supply of good quality water is expected to decrease. Many countries are facing water scarcity as a problem that can be partially alleviated through the use of non-conventional water resources. The increasing water demand and the environmental impact of the disposal of drainage water and treated wastewater suggest that technological innovations are necessary for sustainable reuse for agriculture developments.

Experience suggests that there is usually no signal way or practical approach to manage poor quality water to be used successfully without long term impact on crops, soil and environments. The training programs could cover a wide review concerning recent technologic development focusing on the proper management and practical approaches on the use of nonconventional water resources for irrigation highlighting the management approaches to maximize the benefits and minimize the adverse impact on soil properties, crop production, and other outputs.

7. Water Valuation and Economics

The economic system is concerned with productivity and allocation of resources. It impacts on all other systems as well as the ultimate decision-making process productive resources, usually are grouped into four main categories: Natural resources, Labor, Capital and Management

The contribution of economics lies in estimation of cost and returns of unit of water to productivity. The objective of this program is to highlight the linkage between economics and water resources.

8. Environmental Management of Water Resources

The environmental problems are caused by the interaction of a large number of factors such as disposal of untreated wastewater in water ways, groundwater recharge, drainage surface irrigation, soil characteristics, and seepage from canals, cropping patterns and agrochemicals, and groundwater pumping for irrigation. The problems in these zones are water logging, salinity, alkalinity, water borne diseases like malaria, changes in microclimate and other socio-economic conditions leading to the emergence of new cultural trends.

The objective of the program is to provide exposure to the development issues, institutional and legal arrangements in the different areas. Provide professionals with up to date knowledge on environmental aspects and related issues.



PROPOSED TRAINING FACILITY FOR AFRICAN REGIONS

Regional Training and Education Center RCTWS, Egypt

The MENA Region is characterized by the arid climate. This climatic zone frames the water sector in a particularly challenging picture.

Ministry of Water Resources and Irrigation (MWRI) of Egypt is a gigantic institution with around 70,000 employees. Since 1982, its internal capacity building needs have been mandated to the Regional Center for Training and Water Studies in Arid and Semi-Arid Zones (RCTWS) and its predecessors.

Now the RCTWS is a large-scale institution with international recognition and established partnerships with organizations such as IHE (The Netherlands) and the UNESCO. The mission of the center is to contribute to capacity management in the field of IWRM, water engineering and water-related sciences. The activities are directed to managers, professionals, engineers, technicians and administrative staff in Egypt as well as Arab, African and other Arid and Semi-arid Countries of the Region. The main function is to create, design, prepare and to carry out regional training and education programs in all relevant aspects of IWRM for various level of expertise, which meets the demands of the 21st century.

The training and capacity building activities have been organized under three portfolios or plans which are the Nile Basin and African Plan, the Regional Plan for Arid and Semi-Arid Region, and the National Plan.

The key activities include:

1. Developing the skills of the Ministry's staff members in accordance with Egypt's national policies.
2. Providing specialized training to help professional and non-professional staff members working in different water sectors public work activities to upgrade their skills and knowledge.

The activities are voluminous with around 165 training programs offered yearly.

An example of a relevant training program in this context is the Applied Training Program for Nile Basin Countries which contributes to strengthening the capacity of water professionals in the Basin, including gender, to adopt the IWRM practices.

The Center includes:

1. Training facilities (conferences halls, training facilities, analytical laboratories, computer labs, language facilities)
2. Logistics (Health, restaurants, sports area and swimming pools).

Central features include the facilitation of interchange of expertise and experience among basin institutions and professionals to strengthen the Nile water fraternity. This includes the stimulation of a dialogue among riparian countries, in order to allow the undertaking collaborative enterprises for mutually beneficial purposes.



**BRIEF REPORT OF SOUTHERN AFRICAN REGIONAL IRRIGATION ASSOCIATION (SARIA) 2015
WORKSHOP AND STEERING COMMITTEE MEETING**

1. The Southern African Regional Irrigation Association (SARIA) organized a workshop with the theme “Rainwater harvesting and conservation on crops lands” and a Steering Committee meeting from 17-19 March 2015 at Pretoria, South Africa. Dr. Sylvester Mpandeli, Vice Chairman, South African National Committee on Irrigation and Drainage (SANCID) from Water Research Commission (WRC) was the coordinator on behalf of SARIA. Participants included SARIA representatives from 13 countries out of the 15 Southern Africa countries. The workshop was jointly funded and supported by the ICID from the grant received from Chinese National Committee on Irrigation and Drainage (CNCID) and the Department of Agriculture Forestry and Fisheries (DAFF), Directorate, Water Use and Irrigation Development as part of the MOU between the WRC and DAFF. On 17 March 2015, a training workshop was organized for SARIA participants. Vice President Hon. Dr. Gerhard Backeberg made a presentation on setting the tone for the 2015 SARIA capacity building workshop and described how the SARIA capacity building workshops have been conducted since 2013. As rainwater harvesting is the major challenge for all SARIA members, it was agreed that the training resource material will be used as a basis for organizing further courses in the respective member countries.
2. On 18 March 2015, SARIA members visited Loskop Irrigation Scheme in Limpopo Province which is managed by a Water User Association (WUA) and is responsible for water distribution to the whole scheme that was originally designed as a sprinkler irrigation scheme. Mr. Nico Jurdo, Operation Manager from the Loskop Irrigation explained to SARIA members how the Loskop Irrigation Scheme is being managed and how water is distributed to different farmers on a daily basis. It was also highlighted that wheat, vegetables, tobacco, peanuts, cotton, and citrus are cultivated.
3. On 19 March 2015, a Steering Committee meeting was organized in which representatives of South Africa, Malawi, Mozambique, Zimbabwe, Botswana, Democratic Republic of Congo, Republic of Tanzania, Namibia, Swaziland and Lesotho presented their reports on the activities on irrigation issues. Vice President Hon. Felix Reinders made a presentation on the activities of SARIA and gave an overview of the 15 years since the founding of SARIA. The steering committee meeting also mapped the way forward for SARIA over the next three years.



**AGENDA FOR THE 21ST MEETING OF THE
WORKING GROUP ON YOUNG IRRIGATION PROFESSIONALS FORUM (WG-YPF)**

14 October 2015, 14.00-15.30 hours
Montpellier, France

Presented by the Chairman

Year of Establishment: 1993

Mandate : (1) To provide an international platform for young irrigation and drainage professionals and to encourage and promote a high standard of professional development in the subjects of irrigation, drainage and environment, (2) To facilitate the development, acquisition and wider dissemination of knowledge and information about irrigation, drainage, flood management and environment amongst the young professionals, (3) To maintain and enhance links with national and international youth having interests in the related subjects or the activities relevant to ICID objectives, and (4) To educate young professionals about ICID's role, objectives, activities, structure, constitution and By-laws.

WG-YPF Agenda Item 1: Action taken report by Chair

1. The Chairman may like to present report on the actions taken on the various decisions /proposals of the working group at its last meeting held at Gwangju, Korea.

WG-YPF Agenda Item 2: Review of the membership of the working group

2. In view of the new ICID-Young Professional's Forum (ICID-YPF) being established with open membership (Agenda item no.7), it is proposed to transfer the membership of WG-YPF to the new ICID-YPF including that of Dr. Mortaza Yadkhasti (Iran). Accordingly, the updated membership can be seen in the **Annex 1** (see the electronic version for the latest list).

SUPP.: Jain Irrigation Systems Limited (JISL) has recently joined ICID as Direct Member and has nominated Dr. S.K. Deshmukh (India) for the membership of the group. CV is yet to be received. Mr. Krishna Prasad Rijal from Nepal has shown interest in joining the YPF and has forwarded his brief CV.

WG-YPF Agenda Item 3: Review of the progress made by the National Committees in establishing Young Professionals Forum (YPF)

3. During Gwangju meeting (2014), it was noted that the National Committees of Iran, China, Japan, Korea, Malaysia, Indonesia and Egypt have their YPF directories at national level. These directories are useful for instant dissemination of relevant information to YPs. Other NCs are requested to establish the YPFs and connect them with the network. It is proposed to invite all these members to join the new ICID-YPF.

WG-YPF Agenda Item 4: Scholarship to young professionals for attending ICID events – 26th European Regional Conference, October 2015, Montpellier

4. Recognizing that young professionals face genuine financial difficulties in participating in ICID events, ICID initiated providing scholarships to YPs since 2014. In 2015, twelve young professionals from National Committees (NCs) and partner International Organizations (IOs) have been awarded full scholarship for attending the 26th European Regional Conference (ERC) and 66th International Executive Council (IEC) meetings at Montpellier, France.

5. In order to enrich the repertoire of YPs, two half-day training workshops have been organized for them besides taking responsibilities as rapporteurs in various sessions of the 26th European Regional Conference and attending ICID Working Group meetings of their choice. The two half-day training workshops to be organized are:

- **Training Workshop – 1:** "Coupling innovative methods for participatory water management" by Nils Ferrand, IRSTEA on 15 October 2015; 09:00 – 12:30 hours
- **Training Workshop – 2:** "Integrated Flood Management: from theory to practice" by Dr. Giacomo Teruggi, WMO on 15 October 2015; 14:00 - 17:30 hours

6. A note outlining the scope and programme of the proposed training workshops has been circulated among the scholarship recipients so that they come prepared for the workshop. All young professionals, regardless of receiving scholarship or not, are encouraged to participate in the above training workshops.

7. In June 2015, Ms. Hayati, Secretary of the YPF suggested to organize training workshops in future on topics such as: climate smart agriculture, water footprints or issues related to sustainable irrigated agriculture. These suggestions would be kept in view while deciding the topics of YP training in future. Similar suggestions are welcome.

WG-YPF Agenda Item 5: Young Professionals photo exhibition at Montpellier in 2015

8. Chair Yaser Barghi in cooperation with Ms. Caroline Coulon (France) would be organizing a photo exhibition (in line with the theme of the event) as a side event during Montpellier meetings. The photos will be exhibited in the lobbies of the venue. An award for the best photo is being considered. The Chair may apprise the members on photo exhibition.

WG-YPF Agenda Item 6: Closure report of the WG-YPF

9. The summary report of the activities of the WG for the previous tenure (1993-2015) has been prepared and circulated to members. The Chair may highlight the achievements of the WG. The Chair may bring out a 'Closure Report' of the WG highlighting the technical output of the WG.

WG-YPF Agenda Item 7: Guidelines/format for the new ICID-YPF

10. At the 65th International Executive Council (IEC) held at Gwangju in September 2014, the Council approved establishing an ICID-Young Professional's Forum (ICID-YPF) with open membership. The Council suggested to develop rules and assist the organization of Young Professionals Forum.

11. In the past, it was envisaged to establish a network of young professionals through the development of a web-based platforms such as Facebook and LinkedIn. But in view of weak response to these platforms, Ms Hayati (Malaysia) appreciated (June 2015) the ICID initiative to revamp the existing YPF and introduce new mandate and rules. She recognized that the interactions via Facebook are not taking place and something out of the box has to be done to take off.

12. Keeping the above in view, ICID-YPF would be a platform for all young professionals to come together and share knowledge and experiences. It is recognized that under the increasing complexities of supply, demand and uncertainties, a breed of professionals who approach the irrigation and drainage issues with a more open mind and accepts the multi-dimensional aspects of the water sector is required. They should be willing to undertake their activities in an inter-disciplinary manner. Keeping the long-term objectives of ensuring water and food security in view, ICID has established **ICID Young Professional's Forum (ICID-YPF)** that provides an international platform to young engineers/scientists for their professional development in the areas of irrigation, drainage, flood management and environment. The Forum provides an opportunity to young professionals to engage, network and share their experiences and also learn from the experiences of senior engineers (Mentors) in the field. A concept note on ICID-YPF enumerating benefits to YPs, role of YPs and the mechanism for the management of the Forum is available at **Annex 2**.

WG-YPF Agenda Item 8: Any other business



NOTES FOR CHAIRPERSON:

1. Draft minutes of this meeting to be submitted to ICID Secretariat at Montpellier (France) after the meeting.
2. Chair to participate and present the WG report to PCSO meeting on 15 October 2015.

Annex 1 [Appendix VI, Item 2]

A. Members and their attendance at 2013 and 2014 Meetings

| Sl. No. | Members | Member from | 2013 | | 2014 | | Remarks |
|---------|---|-------------|----------------|---------------------|------|---------------------|---------|
| | | | Self | Contributed by mail | Self | Contributed by mail | |
| 1. | Mr. Yaser Barghi, Chairman (Iran) | 2010 | # ¹ | • | • | | |
| 2. | Ir. Fabian Priandani, Vice Chairman (Indonesia) | 2010 | • | | # | | |
| 3. | Ms Hayati binti Zainal, Secretary (Malaysia) | 2010 | | | # | | |
| 4. | Mr. Piyush Ranjan (India) | 2009 | | | | | |
| 5. | Mr. Gao Lihui (China) | 2011 | • | | • | | |
| 6. | Ms. Ezee G.C. (Nepal) | 2012 | • | | • | | |
| 7. | Dr. Atsushi Marui (Japan) | 2013 | • | • | • | | |
| 8. | Ms. Pooja Kapoor - Direct Member – (WAPCOS India Limited - India) | 2013 | • | | # | | |
| 9. | Mr. Nam Joo Heo (Korea, Republic of) | 2014 | | | • | | |
| 10. | Engr. Muhammad Ejaz Tanveer (Pakistan) | 2014 | | | | | |

B. New nominations received from the National Committee/ Direct Member

| Sl. No. | Name | Country | Remarks |
|---------|---|---------|---------|
| (1) | Dr. Mortaza Yazdkhasti in place of Mr. H. Khaledi | Iran | |
| (2) | Dr. S.K. Deshmukh – Direct Member, JISL | India | |
| (3) | Mr. Krishna Prasad Rijal | Nepal | |

¹ # Through representation

ICID – YOUNG PROFESSIONAL'S FORUM CONCEPT NOTE

Background

At the 65th International Executive Council (IEC) held at Gwangju in September 2014, the Council approved establishing an ICID-Young Professional's Forum (ICID-YPF) with open membership. The Council suggested that ICID Central Office develop rules and assist the organization of Young Professionals Forum.

This note is prepared to lay down the concept and working rules for this Forum. It is expected that the establishment of this Forum may, in the course of its development require adjustment of some of the by-laws, which will be presented separately after the conceptual and administrative framework is agreed to.

The Context

Increasing food production through sustainable use of water will, among others, require large investments in infrastructures, research and development, that are compatible with the preservation of ecosystems and can adapt to climate change. The sector will need to increase its water use efficiency by reducing water losses and, most importantly, increase crop productivity with respect to water.

The Asia and Pacific region has seen development of large irrigation infrastructure in the last fifty years which has helped in creating food security and fueled growth. However, these systems are beset with the low efficiencies. The old public irrigation department in these countries are saddled with old and ill-maintained large irrigation systems and aging staff. The in-service professionals need to be brought to pace with the rapid technological developments. Given the complexity of development process, irrigation and drainage professionals need exposure to the social, environmental and other disciplines that influence the agriculture water management. There is need for greater sharing of experiences and tools particularly related to social, economic and environmental aspects.

Given the fast changing development scenario and the exponential growth in technology, coping with these fast changes is a tough proposition. In addition to learning from past experiences, what definitely is required under the increasing complexities of supply, demand and uncertainties, is a breed of professionals that approach the irrigation and drainage issues with a more open mind and accepts the multi-dimensional aspects of the water sector and are willing to undertake their activities with an inter-disciplinary approach? However, the number of young professionals joining the water sector is dwindling by the year.

Objective of ICID-YPF

Despite the challenging development scenarios the sector is suffering from a lack of interest from the young professionals as they find the career in the sector uninteresting with little growth potential. This lack of interest in the sector among the new generation has resulted in the closure of irrigation and drainage departments in academic institutions around the world. The generation X has to be attracted to the sector by making the careers in irrigation and drainage sector more interesting and challenging. Information has to reach them at their finger press, which they are used to in the era of social media.

With these long-term objectives in view, ICID has established **ICID Young Professional's Forum (ICID-YPF)** that provides an international platform to young engineers/scientists for their professional development in the areas of irrigation, drainage, flood management and environment. The Forum provides an opportunity to young professionals to engage, network and share their experiences and also learn from the experiences of senior engineers (Mentors) in the field. The main objectives of establishing the Forum are to:

- (a) Encourage and promote a high standard of professional development amongst the young professionals in the field of irrigation, drainage, and flood management,
- (b) Provide an international platform for young irrigation and drainage professionals,
- (c) Expose young professional to ICID's purpose, objectives, role and activities,
- (d) Facilitate the wider dissemination of knowledge and information amongst the young professionals,
- (e) Maintain and enhance links with national and international youth having interests in water related subjects or the activities, relevant to ICID objectives.

Membership

Person desirous of becoming member of ICID-YPF will have to fulfill following eligibility criteria:

- (a) Person should be any professional below the age of 40 years,
- (b) working or pursuing studies in the areas of agriculture water management and/or flood management disciplines,

- (c) The membership will have to be endorsed by their organization where working/ academic institute where pursuing higher studies/an ICID National Committee/ an International ICID Partner Institution/ a direct institutional members of ICID/.

The Forum will essentially be an e-forum with most of its activities being met through remote. Members would have the opportunity to interact with each other through a Linked-in platform moderated by experts. The network will be different from other such platforms as the active members of the Forum would have the opportunity to interact face to face with each other at the time of the ICID events.

The activities of the Forum will be monitored and overseen by a group of volunteer young professionals – one coordinator and five joint coordinators - that will link the Forum with ICID network.

Professional Advantages

The members of the Forum will be able to:

- (a) **Interact** with likeminded young professionals, researchers, and practitioners involved at international level and share resources;
- (b) **Develop relations** for peer to peer learning from around the world and enhance self-potential;
- (c) **Bridge the knowledge gap** between theory and practice by attending the global meetings of ICID and listening to senior professionals;
- (d) **Stay informed** on the latest knowledge in the area of irrigation and drainage through ICID publications: ICID News, News Update and e-bulletin, all available on-line;
- (e) **Benefit** from the latest scientific knowledge available through ICID Journal on Irrigation and Drainage.
- (f) **Access** the resources available in the Integrated Library Management System (ILMS)
- (g) Keep up-to-date on best practices and trends in the field;
- (h) **Advance** professional skills by way of participating in ICID training workshops;
- (i) **Better appreciate** different viewpoints, approaches and cultures from around the world; and
- (j) **Enhance** ability to plan careers in the irrigation sector.

Benefits for Young Professionals

- (a) Membership of two WGs of choice subject to their active participation;
- (b) Liberal concession in registration fee (about 50%) in World Irrigation Forum and ICID's Congress, conferences and events;
- (c) Eligible for WatSave Awards: one category (out of four categories) of awards, exclusively dedicated to Young Professionals (YPs);
- (d) Free on-line subscription of the ICID Journal on Irrigation and Drainage to fifty YPs subject to their active participation;
- (e) Eligible for ICID scholarship for participation in ICID events;
- (f) Participate in Sessions/ Roundtable discussions especially organized for young professionals;
- (g) Discounted pricing on educational programs - online learning, webinars, and conferences.

Broad Rules and Regulation

Broad conditions/rules and regulation for ICID-YPF will be as follows:

- (a) Professional willing to become member of ICID-YPF will have to apply in the prescribed form with ID and age proof.
- (b) Professional will undertake to follow the core values of ICID and work towards fulfilling its vision.
- (c) ICID Central Office staff will review application and approve membership and support the experts in moderating the forum and various other activities
- (d) The Forum members will chose a coordinator and five joint-coordinators to manage affair of YPF.
- (e) ICID CO will facilitate election of coordinator and joint coordinators. ICID will identify three most active members, out of which one will be elected as coordinator by YPF members through online poll organized by ICID. For joint coordinators 10 active members will be identified out of which 5 will be elected as joint coordinators. YPF members may review this process and may evolve better process of electing coordinator and joint coordinators.
- (f) Terms of coordinator and joint coordinators will be maximum for a period of 3 years. After three years one of the joint coordinators can be elected as coordinator to ensure continuity.
- (g) ICID will support participation of coordinator under YP scholarship to ICID annual event to brief about activities of the YPF to permanent committees etc.
- (h) Member of forum will be allowed to get online certificate as YPF member after 5 years of active participation in the Forum (or on attaining age of 40).

**AGENDA FOR THE 21ST MEETING OF THE
EUROPEAN REGIONAL WORKING GROUP (ERWG)**

14 October 2015: 17:30-19:00 hours
Montpellier, France

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.

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

ERWG Agenda Item 1: Action Taken Report by Chair

1. The Chairman may like to present a report regarding actions taken on the decisions taken during the last meeting of the WG at Gwangju (2014).

ERWG Agenda Item 2: Review of the membership of the Working Group

2. In order to increase the efficiency and functioning of the Working Group during annual face to face meeting and avoid spending a lot of time on administrative matters, MB has decided that the admission of new members or discontinuation of the membership of the group will be dealt by Chairman in consultation with Vice Chair, Secretary and ICID Central Office prior to the meeting itself through emails/ web conferencing. Accordingly, the updated membership of the WG can be seen in **Annex 1** (see *the electronic version for the latest list*). Any new nominations for the membership received during the meeting will be dealt suitably after the meeting.

3. The current membership of the ERWG and their attendance at last two meetings i.e. 2013 and 2014 is given in the **Annex 1**.

4. A note giving details of the country representatives, observers, composition of various Work Teams, together with associations with European Professional organizations also is at **Annex 2**.

5. During the Gwangju meeting, Austrian National Committee of ICID (AUNCID) informed ICID and the meeting about their decision of withdrawing membership by the end of 2014. ERWG and Secretary General, ICID requested AUNCID to review their decision of withdrawing from ICID membership. AUNCID informed that they are very much interested in ICID activities and would like to retain membership of ICID. However, AUNCID Board is of the view that their membership subscription is relatively high in comparison to other European members and indicated that they would be able to pay an annual fee of about \$1000 as financial support from responsible ministry has stopped. ICID shared calculation of annual subscription¹ with AUNCID in March 2015. Response from AUNCID is awaited. Central Office representative, present in the meeting may provide more details about the calculation, etc.

6. The German National Committee of ICID (GECID) under the Federal Ministry of Food and Agriculture informed in September 2014 that the GECID has decided to withdraw their membership from ICID with effect from 31st December 2014. ERWG Chairman and Secretary General requested them to reconsider their decision of withdrawing from ICID membership. Prof. Dr.-Ing. Klaus Röttcher of German National Committee of ICID (GECID), also Vice Chairman of WG-CAFM in his mail to WG-CAFM Chair, has expressed Germany's inability to reactivate its membership of ICID. Dr. Sabine Seidel (Germany), member of ERWG, has also confirmed this in her October 2014 mail to ICID CO and showed her interest to continue and contribute in the ICID activities.

7. Ukraine National Committee of ICID (UACID) has become "Associate Member" with effect from January 2015. In view of this development, the Group may like to elect its new Vice-Chairman in place of VPH Prof. Peter Kovalenko (Ukraine), who is Vice-Chairman of the ERWG since 2005, in the next meeting of ERWG in October 2015 at Montpellier, France.

¹ Based on total benefited area (irrigated, drained and flood protected) of 0.25 Mha and capacity to pay as 0,851% contribution to UN, annual subscription for 2014 come to \$3575 and for 2015 as \$3685 with 3% increase. In Nov 2014 ICID CO suggested two options for reactivation of membership to AUNCID - one option of joining as 'Direct ICID Membership' and second option of paying annual membership subscription.

8. Mr. Johannes Deelstra (Norway) attended the ERWG meeting at Gwangju (Korea) in 2014 as an Observer and informed that he would make efforts towards Norway becoming ICID member. ICID Central Office followed up the matter with Mr. Deelstra who informed that efforts are still underway². Latest status awaited from Norway.

9. During the 19th meeting of the European Regional Working Group (ERWG) held on 17 September 2014 at Gwangju, Korea, VPH Dr. Laszlo Hayde (Hungary), the Chairman of the ERWG since 2010, has desired to step down from the chairmanship of the group. During the WebEx meeting held in January 2015, Dr. Hayde proposed Mr. Ian Makin (UK) as new Chairman of the group and requested his willingness to take up this responsibility in the next meeting of Montpellier, France in October 2015. Mr. Ian Makin agreed, in principle, to be the Chairman subject to approval from IWMI. Subsequently Mr. Ian Makin in August 2015 confirmed his acceptance to take the responsibility of Chairman of ERWG during the Montpellier meeting.

10. The Group may like to further discuss the latest status on membership of ERWG and election/confirmation of new Chairman and Vice Chairman in the meeting of group at Montpellier, France.

SUPP: Dr. Marco Arcieri, Secretary General of Italian National Committee of ICID (ITAL-ICID) has confirmed that her nomination for the membership of ERWG has already been approved by their Committee. However, official communication of her nomination is awaited.

ERWG Agenda Item 3: WebEx meeting of the group

11. As a new initiative, at the 65th IEC meeting held at Gwangju, Korea in September 2014, it was decided that the Working Groups should organize a WebEx meeting or a video-conference in between two face to face meetings of the IEC in order to enable the group to take a view of the progress made on their activities and at the same time allow contributions from those members who are unable to attend the face to face meetings.

12. Accordingly, the group successfully organized its first video-conference (Online/WebEx) meeting of the members on 30 January 2015. Five members and one observer participated and discussed following agenda: country membership, new Chairman of ERWG, focus groups of the WG including revival of European Work Team on Drainage (EWTDR) with its membership, publication of ERWG, 26th European Regional Conference (ERC) and celebrating ERWG's 20th Anniversary at Montpellier (France). The minutes of the meeting (**Annex 3**) of the ERWG were circulated to the WG members in March 2015 for follow-up actions. Chairman may like to apprise the members.

ERWG Agenda Item 4: Links with regional and trans-national organizations for co-operation

13. The ERWG Water Network includes 7 National Water Management Associations, 5 European professional organizations, and 5 European Water Management Institute (**Annex 2**). During last meeting in Gwangju (2014), the Chairman invited the members for more frequent interactions with these associations and strengthen the linkages further. The members may provide feedback on the interaction or cooperation with these regional and trans-national organisations.

ERWG Agenda Item 5: Dialogue on Water for Food and Environment

14. At Gwangju meeting, it was agreed that the ICID-ERWG, Central and Eastern Europe Global Water Partnership (CEE-GWP) and World Wide Fund of Nature (WWF) would continue to co-operate with each other and share invitations for conferences organized by ICID like European Regional Conferences and International Drainage Workshops. Chairman and members of the group may like to provide latest status and discuss issue for further strengthening cooperation among these organisations.

ERWG Agenda Item 6: Activities of Focus Groups of ERWG

15. ERWG has following six (6) focus groups to raise the issues related to European viewpoint in the respective workbodies of ICID and revert back to ERWG on the relevant issues within the scope of focus groups:

- (a) Focus Group on History (VPH Laszlo Hayde)
- (b) Focus Group on Poverty Alleviation (PH Peter S. Lee)
- (c) Focus Group on Environment (Mr. Osmo Purhonen)
- (d) Focus Group on Drainage (renamed as Working Group on Sustainable Drainage, WG-SDG) (Dr. Irina Bondarik)

² Information on annual membership subscription calculation, details of options to join as Direct Member and other supporting documents were shared by ICID Central Office with Mr. Deelstra in April 2015.

- (e) Focus Group on Water Related Risks (Prof. Klaus Roettcher & Mr. Olli-Matti Verta)
- (f) Focus Group on Project Partnership and Financing (Ir. Leon Winjker)

16. The ICID Central Office requested the contact point of the Focus Group to actively participate in the relevant WG/TF meetings at Montpellier, France in October 2015 and provide appropriate feedback in the ERWG meeting

17. During the ERWG meeting held in Gwangju, the Finnish National Committee of ICID (FINCID), Estonian National Committee of ICID (ESTICID) and Netherlands National Committee of ICID (NETHCID) could not make their presentations as the concerned speakers were not present so it was agreed that presentation would be made at meeting of the group at Montpellier, France in October 2015. National Committees of Finland and Estonia have confirmed that Ms. Helena Aijo (Finland) and Mr. Mati Tonismae (Estonia) would participate and make their presentations on the recent works and achievements of working group on drainage and the regional co-operation and workshops by Baltic countries, Russia and Finland, respectively. Mrs. Anneke van der Kraan and Mr. Leon Wijnker from Netherlands are also expected to make presentation on 'Dutch water safety strategy' however confirmation is still awaited from them.

SUPP: Mrs. Anneke van der Kraan & Mr. Leon Wijnker from The Netherlands have confirmed that they would be unable to attend the meeting of ERWG at Montpellier, France due to various reasons.

18. During Gwangju meeting of the WG (2014), Dr. Irene Bondarik (Russia) agreed to discuss the issue of revival of the European Work Team on Drainage (EWTDR) and develop its scope, Terms of References (ToRs) etc. in consultation with Mr. Petro Alexey Yurievich, new Chairman of the EWTDR. Dr. Bondarik/Chair, EWTDR may apprise the members of the WG on the status of revival of EWTDR.

ERWG Agenda Item 7: 20 Years of ERWG - 26th European Regional Conference (ERC)

19. The 26th European Regional Conference (ERC) of ICID is being organized by host French National Committee of ICID (AFEID) during 11-16 October 2015 at Montpellier, France. The theme of the Conference is "*Innovate to Improve Irrigation Performance*" and three sub-themes are: (a) Innovations for smallholders in irrigation; (b) Wastewater use in agriculture; and (c) Governance of surface water and groundwater. The 'Call for Papers' of the 26th ERC have been issued and widely circulated amongst ICID National Committees, Chairs and members of the Workbodies, Officer-Bearers (*past and present*) and International Organizations. Please access <http://icid2015.sciencesconf.org/?lang=en> for more information.

20. European Regional Working Group (ERWG) will be celebrating its 20th Anniversary during the meeting at Montpellier, France. During the online (WebEX) meeting of the WG in January 2015 various options³ for celebrating 20th anniversary were discussed, it was agreed to held celebrations also within the time frame of the WG meeting.

21. The Chairman may apprise the members of the group

ERWG Agenda Item 8: ERWG website to showcase activities of the group

22. In order to update website of ERWG <http://www.icid.org/erwg.html> by ICID Central Office, members are requested to provide additional material/publications/papers/links for its posting on the group's website. Three presentations⁴ made at WG meeting at Gwangju have been uploaded on ERWG web site (<http://erwg.icidonline.org/>).

ERWG Agenda Item 9: Publications of the ERWG

23. During the WG meeting at Gwangju (2014), it was noted by the group that open source publications, relevant to the WG activities, could be collected and shared through the website. The links of these publications and for that matter workshops could be very useful for the ERWG members. Members of the group were requested to share related publications/papers/links on the WG website for enriching it further. WG Chair and members may like to provide feedback and discuss issue further.

³ Various options considered included organising special sessions, bringing out booklet/CD on activities of ERWG during last 20 years, inviting past members etc.

⁴ These presentations are 12th International Drainage workshop (IDW) by Irene Bondarik (Russia), Water management in the Germany by Klaus Rottcher (Germany) and German irrigation project SAPHIR by Sabine Seidel (Germany).

ERWG Agenda Item 10: Three-Year Rolling Work Plan

24. In order to complete the mandate and focus on specific activity, a rolling work plan is necessary. The members may evolve a 3-year rolling work plan which should include activities such as workshops, publications etc., with time frame; and responsibility allocation, as per the format in **Annex 4**. ERWG may discuss and finalise 3-year rolling work plan for presenting to PCSO by the WG Chair.

ERWG Agenda Item 11: Any other business

25. ICID News Update⁵ covered following activities of the members countries in Europe which is shared with WG members for information and further discussion in the matter:

- (a) **Russia:** ICID President Dr. Saeed Nairizi was invited by Ministry of Agriculture of the Russian Federation on 23-25 June of 2015. Dr. Nairizi visited the Agrarian University of Russia - State Agrarian University – Moscow Agricultural Academy (RSAU – MAA) where he emphasized the value of scientific and educational potentials. He met Prof. Vasilii Nechaev, Head of State Agrarian University and delivered a lecture titled 'The role of land reclamation in guaranteeing the global food security' for the students, and professionals of Kazan State Agricultural University. During the meeting it was proposed to organize an international conference of educational institutes in the field of land reclamation from the member countries of ICID at the Russian State Agrarian University.
- (b) **Spain:** The Spanish Association on Irrigation and Drainage (AERYD) with the support of the ICID Spanish National Committee on Irrigation and Drainage (CERYD) organized the 33rd Spanish National Congress on Irrigation and Drainage from 16-18 June 2015. The congress was attended by about 180 participants and around 70 technical papers were presented in four thematic categories, namely: (i) Irrigation hydrology, crops water requirements; (ii) Drainage, salinity, impacts; (iii) Irrigation engineering and modernization, water and energy saving; and (iv) Irrigation farming management, economy, sustainability, water rights and laws were presented.
- (c) **Estonia:** A three day Conference on 'Agricultural drainage systems, their maintenance and cross border cooperation' was held from 20-22 May 2015 in Estonia. During the conference, land improvement system with efficient co-operation between neighbouring countries and issues related to cross-border cooperation were discussed in detail. It was highlighted that Estonia has planned to invest 49 million Euros in the Rural Life Development Plan during 2014-2020. In addition, a traditional Baltic Drainage Conference was also held during the above period.

26. The members of the Group may like to discuss the activities of the member countries of ICID in Europe during the meeting.



NOTES FOR CHAIRPERSON:

1. Draft minutes of this meeting to be submitted to ICID Secretariat at Montpellier (France) after the meeting.
2. Chair to participate and present the WG report to PCSO meeting on 15 October 2015.

⁵ For more information, please access ICID News Update of July 2015 available at http://www.icid.org/nup2015_7.pdf

MEMBERSHIP OF EUROPEAN REGIONAL WORKING GROUP (ERWG)

| Sl. No. | Countries (Year of joining) | Present representatives (Year of Joining) | Remarks |
|--------------------------|-----------------------------------|--|---|
| 1. | Hungary (1955) | VPH Dr. Laszlo Hayde, Chairman, 2010 (2005) | Attended the WebEx meeting in 2015 |
| 2. | Ukraine (1996) 2014 | VPH Prof. Dr. Peter Kovalenko, Vice Chairman, 2005 (1999) | UACID became associate member w.e.f. Jan 2015 ERWG may elect new Vice Chairman |
| 3. | Finland (2000) | Mr. Olli-Matti Verta, Secretary, 2011 | Attended the WebEx meeting in 2015 |
| 4. | Austria (1954) 2014* | Dipl. Ing. Frederick M. Cate (1998) | Attended the WebEx meeting in 2015 |
| 5. | Croatia (1993) | Dr. Davor Romic (2002) | No contribution during 2013 and 2014 |
| 6. | Czech Republic (1997) | Prof. Dr. Svatopluk Matula (1997) | No contribution during 2013 and 2014 |
| 7. | France (1953) | Dr. Sami Bouarfa (2013) | Represented in the meeting in 2014 |
| 8. | Estonia (2001) | Mr. Mati Tonismae (2002) | Contributed in News Update in 2015 (July issue) |
| 9. | Germany (1957) 2015* ⁶ | Mrs. Sabine Seidel, as Young Professional (2011) | Attended the WebEx meeting in 2015 |
| | | Dr. Klaus-Dieter Vorlop (2012) | Through representation in 2013 & 2014 |
| 10. | Italy (1950) | Italy representative | ITAL-ICID was requested to send fresh nomination for the Group |
| 11. | Ireland (1978) | Dr. John Martin (2003) | No contribution during 2013 and 2014 |
| 12. | Netherlands (1950) | Mr. Pol Hakstege (2007) | Retired in last year as informed in 2015 |
| 13. | Portugal (1954) | Mr. Pedro Eduardo da Cunha Serra (1996) | No contribution during 2013 and 2014 |
| 14. | Romania (1992) | Prof. Dr. Ion Nicolaesco (1996) | No contribution during 2013 and 2014 |
| 15. | Slovenia (1992) | VPH Prof. Dr. Brane Maticic (1996) | Continues up to 2015 and contributed by email in 26 th ERC Program in 2015 |
| 16. | Spain (1955) | Spanish representative | No representative and contribution during last 2 years |
| 17. | Switzerland (1951) | Switzerland Representative | No contribution in 2013. Requested for new nomination in place of Mr. Claude-Alain Vuillerat who expired in 2014. |
| 18. | Russia (1955) | Dr. Irina G. Pankova, as Young Professional (2007) | No contribution in 2014 |
| | | Dr. Irina Bondarik (2012) | Attended the meeting in 2013 & 2014 |
| 19. | United Kingdom (1951) | Mr. Ian Makin (2014) | Attended the WebEx meeting in 2015 |
| Ex-Officio Member | | | |
| 1. | Russia | Mr. Peter Alexey Yurievich (2014), Chairman, erstwhile European Work Team on Drainage, EWTDR | |

⁶ * Year in which withdrawn.

EUROPEAN REGIONAL WORKING GROUP (ERWG)

1. Profile

The European Regional Working Group (ERWG) of ICID was founded at the 46th IEC Meeting in Rome in September 1995, and is acting under the motto “Comprehensive land and water management in European river basins for the sustainable development of the rural landscape”. The tasks of ERWG can be summarized as follows:

- (a) Knowledge transfer and exchange of experience in matters of border crossing water and land management in European countries
- (b) Co-operation of experts and organisations engaged in national, supranational and international objectives of water management and irrigated agriculture
- (c) Development and promotion of border crossing projects and conferences
- (d) Members are the ICID National Committees of 16 European countries, as below:

| Country Representatives | | | |
|-------------------------|------------------------|------------------------|----------------------------------|
| Croatia | Prof. Davor Romic | Portugal | Mr. Pedro Eduardo da Cunha Serra |
| Czech Republic | Prof. Svatopluk Matula | Romania | Prof. Ion M. Nicolaescu |
| Estonia | Mr. Mati Tonismae | Russia | Dr. (Mrs.) Irena G. Bondarik |
| Finland | Mr. Olli-Matti Verta | Slovenia | Prof. Brane Maticic |
| France | Dr. Sami Bouarfa | Spain | Representative |
| Hungary | Dr. Laszlo Hayde | Switzerland | Mr. Claude Alain Vullier |
| Ireland | Dr. John Martin | The Netherlands | Mr. Pol Hakstege |
| Italy | Representative | United Kingdom | Mr. Ian Makin |

| | | |
|----------------------|---|---|
| Chairman | : | Dr. Laszlo Hayde (Hungary) |
| Vice-Chairman | : | VPH Prof. Dr. Peter Kovalenko (<i>New Vice Chairman to be elected</i>) |
| Secretary (1) | : | Mr. Olli-Matti Verta (Finland) |
| Secretary (2) | : | Dr. (Mrs.) Irena G. Bondarik (Russia) <i>for Russian speaking countries</i> |
| Observer | : | Mr. Mohammed Benblidia (IME) |

2. Countries with observer status

| | | |
|---------------------------------|---|----------------------------|
| <i>Bosnia & Herzegovina</i> | : | Prof. Dr. Mihovil Vlahinic |
| <i>Moldova</i> : | | Mr. Valeriu Catrinescu |

3. Water Network

In addition to the European National Committees of ICID, the following organizations/association/institution has been incorporated in the ERWG Water Network:

4. Five European professional organizations

- (a) CIPR - Commission Internationale pour la Protection du Rhin
- (b) EurAgEng - Special Interest Group on Soil and Water, European Society of Agricultural Engineers
- (c) EWA - European Water Association
- (d) EWRA - European Water Resources Association
- (e) TECHWARE - Technology for Water Resources

5. Seven National Water Management Associations

- (a) BSHE - Bulgarian Society of Hydraulic Engineers
- (b) DWA - German Association for Water Management, Waste Water and Waste (Chair: Prof. Klaus Roettcher)
- (c) DONBH - Society for Irrigation and Drainage of Bosnia & Herzegovina
- (d) LZHIS - Lithuanian Association of Land and Water Management Engineers
- (e) MHT - Hungarian Hydrological Society
- (f) RSRE - Russian Society of Reclamation Engineers
- (g) SITWM - Polish Association for Water Plant Construction and Land Improvement Engineers and Technicians

6. Five European Water Management Institutes

- (a) ACVAPROJECT - Water Management Design Institute (Moldova Republic)
- (b) DHI - Danish Hydraulic Institute
- (c) IIDS - Institute of Irrigation and Development Studies, University of Southampton (United Kingdom)
- (d) RIIDHE - Research Institute for Irrigation, Drainage and Hydraulic Engineering (Bulgaria)
- (e) IME - Institut Méditerranéen de l'Eau (France)

7. Work Results

- (a) ERWG Letter No. 1 to 20 (newsletters)
- (b) Irrigation Sector Reform in Central and Eastern European Countries (project report book/CD)
- (c) European Sector Vision on Water for Food and Rural Development (report)
- (d) ICID Guide "How to work out a drought mitigation strategy" (guideline)
- (e) Water Resources Management in the Czech Republic, Hungary, Lithuania, Slovenia (book)
- (f) Diffuse Entries in Rivers of the Odra Basin (research report)
- (g) Proceedings of several European conferences
- (h) First and Second CEE WFE Dialogue Reports (Dialogue on Water, Food and Environment – Dialogue on the implementation of the EU Water Framework Directive in Agriculture in the Central and East European Countries) (reports)
- (i) Danube Valley : History of Irrigation, Drainage and Flood Control (book)

8. Projects

- (a) Flood risk mitigation by agricultural non-structural measures
- (b) Drought mitigation strategies
- (c) Implementation of the European Water Framework Directive
- (d) Flood plain management on Odra, Nemunas and Vistula
- (e) Flood prevention strategies
- (f) Point and diffused pollutants in the Odra basin
- (g) Sustainable irrigation and drainage management under the conditions of transitional economy
- (h) Dialogue on water for food and environmental security in Central and Eastern Europe



**MINUTES OF ONLINE MEETING OF
EUROPEAN REGIONAL WORKING GROUP (ERWG)
(WebEx / Video Conferencing)**

Date: 30 January 2015 Time: 14:30 IST [(10.00 Central EU time (GMT+1))]

Members participated: (1) VPH Dr. Laszlo Hayde (Hungary), Chairman of ERWG; (2) Mr. Olli-Matti Verta (Finland), Secretary; (3) Mr. Ian Makin (UK), Member; (4) Dr. Sabine Seidel (Germany); (5) Prof. Klaus Roettcher (Germany); (6) Ms. Carolin Coulon (France); (7) Dr. Vijay K. Labhsetwar, Director and Mr. Madhu Mohanan, Program Officer from ICID Central Office, New Delhi.

Note: *The text in italics is the minutes of the meeting.*

Item A: Country Membership

(a) Austria, Germany have withdrawn (2014) on their own. Now, Netherlands is having difficulty paying subscription for 2015.

Austria: *Mr. Frederick Cate (Austria) unfortunately did not participate in the WebEx conference in spite of affirmative consent in the Doodle Poll.*

Germany: *Prof. Klaus Roettcher and Dr. Sabine Seidel from Germany informed that the missing communication between the Government / Ministry with National Committee perhaps resulted into non-payment of ICID annual subscription in 2015. Germany has otherwise paid up to 2014. Earlier, other institutions hosted to German National Committee and subscription came from their budget which is not the case anymore.*

Netherlands: *Dr. Laszlo Hayde, Chairman of ERWG informed that NETHCID has undergone restructuring and is looking for support from outside. The Committee is getting weaker due to retirement of many members and young members not joining the ICID activities. Earlier, the Ministry was paying the ICID subscription which is not the case anymore. Chairman will take up the issue with NETHCID (The NETHCID has since paid their subscription for 2015).*

Spain: *Dr. Vijay Labhsetwar, Director, ICID explained the similar situation of Spanish National Committee. In Spain, Spanish National Committee has been transferred from one Directorate to the other Directorate in the same ministry and the issue of paying subscription to ICID is pending with the new Director-General of the organization. Prof Ortiz is waiting for an appointment with the new Director General.*

Mr. Ian Makin (UK) informed that the IWF/ICID.UK collects a membership fee from its members and in turn pays ICID subscription from this collection. Government of UK is not involved in paying the ICID subscription. He was wondering if these National Committees could look into the ICID.UK model for collecting the membership fee.

(b) Getting Norway on board - Johannes Deelstra (Norway) attended Korea meeting.

Norway: *Dr. Johannes Deelstra could not participate due to his other engagement. However, he informed by his e-mail that he is working on the issue of Norway joining ICID.*

Item B: New Chairman of ERWG (Item 2 of Korea minutes)

(a) Dr. Laszlo Hayde desired to step down by next meeting.

Chairman asked Mr. Ian Makin for his willingness to be the new Chairman of ERWG during Montpellier meeting in October 2015. Mr. Ian agreed, in principle, to be the Chairman subject to approval from IWMI as he will be now working for IWMI in Sri Lanka on contractual basis for three years. Mr. Ian Makin expressed his desire to join ICID new Working Group on M&R as an IWMI Observer which will facilitate his participation in ICID activities, in general.

Item C: Focus Groups of ERWG (Item 5)

(a) Define role of each group (yet to kick start).

The focal person of the Focus Group is expected to liaise between the concerned working groups and the ERWG.

(b) Revive European Work Team on Drainage (EWTDR) with its membership in the next Meeting – Dr. Irene Bondarik

Dr. Irene Bondarik (Russia) informed that she could not participate due to net-working problems. However, Chairman proposed to wait till Montpellier meeting to get the feedback on the activities of European Work Team on Drainage (EWTDR).

Item D: Publication of ERWG (Item 8)

(a) Collect open source publications.

(b) Short description of own work, links to activities.

(c) PowerPoint Presentations (PPTs) and other documents.

The members agreed to provide the material to enrich ERWG website. However, the Chairman informed that it is not happening and members should be more active.

Item E: 26th European Regional Conference (ERC) (Item 6.2)

(a) Call for papers - circulated, may review.

(b) Program at a Glance - ready; six days instead of seven, tight schedule.

(c) How to involve CEE-GWP and WWF in 26th ERC (Item 4).

Ms. Carolin Coulon (France) shared the 66th IEC Programme and informed the basic structure of the programme. Dr. Vijay Labhsetwar from Central Office informed that all working group meetings will be getting 90 minutes (1 ½ hour) each instead of 180 minutes (3 hours) earlier. Similarly, international workshops will get 3 hours (180 minutes) only in place of 6 hours. This has resulted into saving of one full day and therefore the duration of the Montpellier meetings will be 6-day instead of 7 days resulting into tight schedule.

Mr. Ian Makin appreciated this gesture from AFEID which is likely to result in time and money savings for all the members.

Mr. Ian Makin has agreed to provide contact details for CEE-GWP and WWF in Europe for their involvement in the 26th European Regional Conference (ERC).

Item F: ERWG will celebrate its 20th Anniversary at Montpellier (Item 10)

(a) How to celebrate?

The celebration will be held within the time frame of WG meeting i.e. within 90 minutes allocated for ERWG meeting.

(b) What (items) activities can be planned at Montpellier?

Germany initiated the formation of ERWG in 1995 with Chairman Dr. W. Dirksen (1995 - 2002). Ir Eikko Luebbe, the next Chairman, was again from Germany. Therefore, lot of historical information has to come from Germany. Dr. Sabine Seidel will attempt to contact these people and other past office bearers to collect the information and material.

(c) Can a booklet / CD be published covering highlights of ERWG activities over last 20 years?

Publishing a booklet / CD-ROM will depend on volume and type of material collected. However, Mr. Ian expressed that no hard copies of any kind should be printed as they are left behind after the conference.

- (d) **Organize a Special session, invite ex-members and felicitate their contributions?**
- (e) **Responsibility allocation.**
- (f) **Central Office to assist in all correspondence / e-mailing etc.**

Chairman expressed that inviting past members is a good idea. Dr. Labhsetwar offered full assistance to all members in correspondence and collecting material from the concerned members.



Annex 4 [Appendix VII, Item 10]

THREE-YEAR WORK PLAN
(Draft only – PI add/delete/improve as appropriate)

| Activity ^{*7} | 2015 | 2016 | 2017 |
|------------------------|---|------|------|
| Publications | | | |
| | | | |
| | | | |
| Workshops | | | |
| | | | |
| Others | 26 th ERC, Montpellier, France | | |

⁷ *Action plan need to be described for each activity with timeline and responsibility allocation.

**AGENDA FOR THE 35TH MEETING OF THE
PERMANENT COMMITTEE FOR TECHNICAL ACTIVITIES (PCTA)
15 October 2015, 14.00-19.00 hours
Montpellier, France**

Mandate: The Permanent Committee for Technical Activities 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: (1) Vice President Hon. Dr. Felix B. Reinders, Chairman (South Africa, 2010); (2) Vice President Hon. Engr. Husnain Ahmad (Pakistan, 2009); (3) Prof. Graziano Ghinassi (Italy, 2012); (4) Prof. Masayoshi Satoh (Japan, 2012); (5) President Hon. Mr. Peter S. Lee (UK, 2013); (6) Ms. Aysen Pervin Güngör (Turkey, 2014); (7) Mr. Chaiwat Prechawit (Thailand, 2014); (8) Mr. Mehrzad Ehsani (Iran, 2014) and (9) Secretary General, ICID

Permanent Observers: (i) World Bank Representative; (ii) FAO Representative; (iii) IWMI Representative; (iv) ISO Representative; (v) WWC Representative; (vi) CPWF Representative; and (vii) AgWA Representative.

Ex-Officio Members: All Strategy Theme Leaders and Chairpersons of all workbodies under PCTA. Ex-Officio Member Vice President Hon. Larry D. Stephens (USA), Chairman, C-PR&P as Secretary (PCTA).

PCTA Agenda Item 1: ATR on the minutes of the 34th Meeting of PCTA

1. An Action Taken Report (ATR) on the last minutes of the PCTA meeting at Gwangju is given at **Annex 1**.

PCTA Agenda Item 2: Membership of the PCTA and Workbodies

2. The PCTA will review its membership and also consider the proposals from the Chairpersons of various workbodies associated with it for making recommendations to IEC on the changes in the membership of various working groups in accordance with the relevant ICID By-laws governing the membership of ICID workbodies/permanent committees.

3. VPH Engr. Husnain Ahmad (Pakistan, 2009) shall be completing his tenure of six years as member of PCTA at Montpellier meeting (ICID By-laws 3.8.1(c)). Pakistan National Committee has been requested to send a suitable replacement in his place on completion of his term. In pursuance of ICID By-laws 3.8.1 (d), the President in consultation with the Secretary-General, has nominated Vice President Dr. Mohamed Wahba of ENCID and VP Dr. Ding Kunlun of CNCID as members of PCTA, taking into account the specific expertise required and ability to serve the Committee. The respective National Committees have communicated the consents of the nominees to serve PCTA as its members. The Committee may consider their membership and recommend appropriately.

SUPP: IRNCID has nominated Mr. Ali Reza Salamat in place of Mr. Mehrzad Ehsani for membership of PCTA which has been communicated to Chair, PCTA for his information.

PCTA Agenda Item 3: Functioning of Workbodies

4. The web-conferencing/tele-conferencing/video-conferencing services have now been made available to the workbodies to enable them to interact with the members between two IEC meetings. The web conferencing of 2 workbodies, viz. WG-DROUGHT and WG-ENV were held in the intervening period, besides one Regional Working Group, ERWG. The web conferencing has been aimed in helping the provisional members of various workbodies, who were unable to present physically during the meeting at Gwangju, to attend the meetings and contribute to the activities of the working groups and thereby become active members of WGs that shall not be hindered just by financial constraints to be personally present at the meetings. The web conferencing facility has also been availed in organizing the meetings of Sub-Committee on Themes, MB meetings, besides meetings of ITAC of WIF2, CG on Vision 2030, etc.

5. Members are requested to suggest further improvements in the working of its workbodies so as to be able to fulfil the mandates expected from them, including bringing out useful publications, which forms part of their important mandate. PCTA may also like to deliberate upon the means such as ICID News that forms an important tool in exchanging experiences on the new developments with the non-technical stakeholders. It is suggested that the WGs that organize an international workshop should contribute an article in ICID News communicating the brief on the topic of the workshop and its outcome for the non-specialists as well as policy makers.

6. Members may also like to discuss organizational issues during the physical meetings as well as through web-conferencing.

PCTA Agenda Item 4: Revision / Updation of Multilingual Technical Dictionary (MTD)

7. It has been proposed to review/update the MTD of ICID that has been brought out in CD form in 2010. The MTD is currently available in English and French which also includes the translations in Chinese, Japanese and Russian and is available on a CD. In addition, many countries have their own irrigation and drainage technical dictionaries in their national languages. Central Office has started efforts to bring the CD version as well as the national irrigation and drainage dictionaries in an on-line version to make them available to various stakeholders that need to be participating in the sustainable development through agriculture water management.

8. The Committee may like to consider setting up a mechanism to review/update the existing MTD in the background of note given in **Annex 2**.

PCTA Agenda Item 5: Review of reports of the activities of Workbodies under the Strategy Theme – Basin (ST.B)

9. The Chairpersons of the WGs, TFs and Co-Theme Leaders of Strategy Themes will brief on the activities of their respective workbodies and present their recommendations for review and consideration by Committee prior to making recommendations to IEC for approval. In the absence of the Chair, the member chairing the WG meeting may present the report.

PCTA Agenda Item 5.1: Working Group on Water Management in Water Stressed Regions (WG-DROUGHT)

10. The tenure of the WG has been extended for one year during the 65th IEC Meeting (*Resolution IEC-3/65, Sr. No.9*). VPH Mr. Franklin E. Dimick, Chair of the WG will present the report of the meeting of WG.

PCTA Agenda Item 5.2: Working Group on Sustainable Development of Tidal Areas (WG-SDTA)

11. Dr. Ruey-Chy Kao, Chair of the WG will present the report of the meeting of WG.

PCTA Agenda Item 5.3: Working Group on Environment (WG-ENV)

12. The tenure of the WG has been extended for one year during the 65th IEC Meeting (*Resolution IEC-3/65, Sr. No.9*). Dr. Sylvain Roger Perret, Chair of the WG will present the report of the meeting of WG.

PCTA Agenda Item 5.4: Working Group on Comprehensive Approaches to Flood Management (WG-CAFM)

13. Dr. Kamran Emami, Chair of the WG will present the report of the meeting of WG.

PCTA Agenda Item 5.5: Working Group on Global Climate Change and Agricultural Water Management (WG-CLIMATE)

14. The tenure of the WG has been extended for one year during the 65th IEC Meeting (*Resolution IEC-3/65, Sr. No.9*). Dr. Tsugihiko Watanabe, Chair will present the report of the meeting of WG.

PCTA Agenda Item 5.6: Working Group on Water for Bio-Energy and Food (WG-BIO-ENERGY)

15. The tenure of the WG has been extended for one year during the 65th IEC Meeting (*Resolution IEC-3/65, Sr. No.9*). VP Mr. Laurie C. Tollefson, Chair of the WG will present the report of the meeting of WG.

PCTA Agenda Item 5.7: Synthesis Report by Co-Theme Leaders of ST Basin [VP Laurie C. Tollefson (Canada) & VP Dr. Mohamed Wahba (Egypt)]

PCTA Agenda Item 6: Review reports of the activities of Workbodies under the Strategy Theme – On-Farm (ST.OF)

PCTA Agenda Item 6.1: Working Group on Water and Crops (WG-CROP)

16. VPH Dr. Ragab Ragab, Chair of the WG will present the report of the meeting of WG.

Working Group on Use of Poor Quality Water for Irrigation (WG-PQW)

17. Dr. (Mrs.) Samia El-Guindy, Chair of the WG will present the report of the meeting of WG.

PCTA Agenda Item 6.2: Working Group on On-Farm Irrigation Systems (WG-ON-FARM)

18. The tenure of the WG has been extended for one year during the 65th IEC Meeting (*Resolution IEC-3/65, Sr. No.9*). VPH Mr. Felix B. Reinders, Chair of the WG will present the report of the meeting of WG.

PCTA Agenda Item 6.3: Synthesis report of Co-Theme Leaders of ST On-Farm [VP Kadhim Mohsin Ahmed (Iraq) & VP Bong Hoon Lee (Korea)]

PCTA Agenda Item 7: Review of reports of the activities of Workbodies under the Strategy Theme – Knowledge (ST.K)

PCTA Agenda Item 7.1: Working Group on History of Irrigation, Drainage and Flood Control (WG-HIST)

19. The tenure of the WG has been extended for two years during the 65th IEC Meeting (*Resolution IEC-3/65, Sr. No.9*). Dr. Kamran Emami, Chair of the WG will present the report of the meeting of WG.

PCTA Agenda Item 7.2: Task Force to Guide ICID Inputs to World Water Forum 7 (TF-WWF7)

20. VPH Mr. Shinsuke Ota, Chair of the TF will present the report of the meeting of TF.

PCTA Agenda Item 7.3: Task Force on Value Engineering (TF-VE)

21. Dr. Kamran Emami, Chair of the TF will present the report of the meeting of TF.

PCTA Agenda Item 7.4: Committee on Public Relations and Publications (C-PR&P)

22. VPH Mr. Larry D. Stephens, Chair of the Committee will present the report of the meeting of the Committee.

PCTA Agenda Item 7.5: ICID Journal Editorial Board (EB-JOUR)

23. PH Prof. Dr. Bart Schultz, Chair of the EB will present the report of the meeting of the Editorial Board.

PCTA Agenda Item 7.6: Synthesis report of Co-Theme Leaders of ST Knowledge [VP Basuki Hadimoeljono (Indonesia) & VP A.B. Pandya (India)]

PCTA Agenda Item 8: Presentation on improvement in irrigation service provisions

24. Irrigation development, water saving, modernization of irrigation systems, organizational aspects of irrigation services are the subject of the four new working groups which have been/are being established to address related issues under Theme- Scheme. International organisations such as World Bank and Asian Development Bank (ADB) are very active in supporting developing countries in addressing these issues. Recently ADB has completed two studies¹ covering developing member countries in South Asia (India, Nepal and Bangladesh) in which technical, institutional and organisational issues related to agricultural water management, improvement of water use efficiency and modernisation of large and small scale irrigation system were reviewed and recommendations made for implementation of pilot projects to improve performance of irrigation systems. ADB representative will make a presentation to share their experiences in the field of modernisation and water use efficiency improvement of irrigation systems based on the outcomes of these studies. It is hoped that this will help these WGs in developing their Work Plans.

PCTA Agenda Item 9: Review of reports of the activities of Workbodies under the Strategy Theme – Schemes (ST.S)

PCTA Agenda Item 9.1: Working Group on Sustainable Drainage Management (WG-SDG)

25. Chair of the WG will present the report of the meeting of WG.

¹ These studies are National water use efficiency improvement support program for India and Innovations for more food with less water covering India, Bangladesh and Nepal

PCTA Agenda Item 9.2: Working Group on Institutional Aspects of Irrigation / Drainage System (WG-IOA)

26. Chair of the WG will present the report of the meeting of WG.

PCTA Agenda Item 9.3: Working Group on Modernization & Revitalization of Irrigation Schemes (WG-M&R)

27. Chair of the WG will present the report of the meeting of WG.

PCTA Agenda Item 9.4: Synthesis Report by Co-Theme Leaders on ST Schemes [VP Hüseyin Gündoğdu (Turkey), VP François Brelle (France) & VP Dr. Ding Kunlun (China)]

PCTA Agenda Item 10: Newly Proposed Workbodies

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

28. At the 65th IEC meeting, while considering the report of the Chairman, PCTA, the Council agreed with the recommendation of PCTA that scoping document for the Working Group on Irrigation Development and Management be further developed and the proposal for its establishment be presented at the 66th Council meeting at Montpellier.

29. The scoping document thus developed is placed before the Committee for its consideration at **Annex 3**.

PCTA Agenda Item 10.2: Working Group on Capacity Development, Training and Education (WG-CDTE)

30. The 65th International Executive Council (IEC) held at Gwangju in September 2014 endorsed the report of Vice President Er A.B. Pandya on Strategy Theme 'Knowledge' presented during the Council meeting and approved in principle the proposal for re-establishing a new Working Group on Capacity Building, Training and Education.

31. VP Er A.B. Pandya has developed a scoping document on "Capacity Development, Training and Education" which was also circulated among the NCs (**Annex 4**). VP Er Pandya will present his report and the scope of the activities of the proposed new WG.

PCTA Agenda Item 10.3: Working Group on Water Saving in Irrigated Areas (WG-WATS)

32. Based on the SD circulated among the NCs (**Annex 5**) and the informal discussions of the extended core group on "Water Saving in Irrigated Areas" lead of the Core Group will present the report and the scope of the activities of the new WG.

PCTA Agenda Item 11: Report on the outcome of 26th ERC

33. Chair, ERWG will present a report on the outcome of 26th ERC held in Montpellier, France.

PCTA Agenda Item 12: Report of the Sub-Committee on Themes, Topics and Work Plans of future ICID Events

34. A Sub-Committee constituted (*Resolution IEC-2/64*) under PCTA to deliberate upon the Themes, Topics and Work plans of the various future ICID events including Congresses and World Irrigation Forums under the Chairmanship of PH Prof Bart Schultz, shall report to PCTA every year. Chair of the Sub-Committee, PH Schultz will present the report of the sub-committee to PCTA for its consideration and recommendation, if any

35. In view of setting up of the sub-committee on themes etc. it is proposed to revisit the mandate of the C-CONGR as presented under the report of the Chair of the C-CONGR.

SUPP:

PCTA Agenda Item 13: Setting up of Technical Support Unit (TSU) in ICID

36. During the visit of the President, ICID to a number of countries, the NCs have expressed the need for professional guidance and support from ICID in initiating certain studies and activities. Accordingly, President during his visit to the CO his ideas with the Secretary General on the subject and proposed to set up a Technical Support

Unit (TSU) with participation from the experts from various other NCs. Accordingly, a proposal has been made after discussions with some of the NCs who have expressed their willingness to support such an initiative. The purpose of the TSU would be to support the member countries in general assessment of gaps in AWM capacities within the countries and suggest possible solutions; developing feasibility reports for small and medium irrigation, drainage and flood management proposal and undertaking assessment of training requirements.

37. The concept note on setting up a Technical Support Unit (TSU) giving its objective, funding, mechanism, etc. is attached as **Annex 6**. The Committee may consider the proposal and provide its recommendations to the Council.

PCTA Agenda Item 14: Any other business



**ACTION TAKEN REPORT ON THE 34th MEETING OF PCTA
19 September 2014, Gwangju, Republic of Korea**

| Item | Recommendation | Decision of 65 th IEC | Action Taken |
|--|---|---|---|
| 3. Improvement in the functioning of Workbodies | | | |
| | Recommended that the candidate members who are unable to attend the meeting may be admitted provisionally and their membership confirmed on the basis of their participation and contribution in the virtual mid-session meeting or through e-mail exchange. | Accepted vide Resolution IEC-3/65 (Sr. No.3). | The list of provisional members to be confirmed on the basis of their participation in the virtual and mid-session meeting will be presented as part of recommendations from the Chairs of the WGs for PCTA's consideration and recommendation. |
| 4. Review of the activities of Workbodies | | | |
| | Recommended that the term of WG-DROUGHT may be extended for a period of one year up to 2015; and a new WG with a new mandate may be established based on a Scoping Document, that should be prepared for consideration at the 66 th IEC Meeting in Montpellier. | Accepted vide Resolution IEC-3/65 (Sr. No.9). | WG Chair desired to step down. Efforts were made to identify another person to lead the WG and taking up responsibility of developing the 'Scoping Document' (SD) for new WG. So far nobody has shown interest in taking lead of the WG. |
| | Recommended that the tenure of the WG-ENV be extended for one year and a new WG be established after 2015, based on a Scoping Document. | Accepted vide Resolution IEC-3/65 (Sr. No.9). | Scoping Document will be presented by the chair of the WG. |
| | Recommended that the mandate of the WG-CLIMATE be extended for one year up to 2015 and urged the WG Chair to develop a new Scoping Document to extend the tenure of WG for three more years, subsequently. | Accepted vide Resolution IEC-3/65 (Sr. No.9). | Scoping Document will be presented by the chair of the WG. |
| | Recommended not to close the WG-BIO-ENERGY and recommended that a new Scoping Document be developed to reorient its objectives and the scope of its activities. Further recommended that future course of action on the WG may be decided during the 66 th IEC Meeting in 2015. | Accepted vide Resolution IEC-3/65 (Sr. No.9). | There could be no progress in developing the Scoping Document. |
| | Recommended that the Central Office should develop a standard format for proposing workshops during various ICID events and suggested that the Sub-Committee on Themes, Topics and Work Plans of Future ICID Events should take a decision on whether a proposed international workshop should fit into the programs of the events in future. | Endorsed the recommendation. | Chair of the Sub-Committee will present his report. |

Annex 1 [Continued]

| Item | Recommendation | Decision of 65th IEC | Action Taken |
|---|--|---|--|
| | Recommended that the WG-ON-FARM may be extended for one year up to 2015 and that a new Scoping Document may be developed for the new WG and presented at the 66 th IEC Meeting | Accepted vide Resolution IEC-3/65 (Sr. No.9). | Scoping Document will be presented by the chair of the WG. |
| | Recommended that the WG-HIST mandate be continued for two years | Accepted vide Resolution IEC-3/65 (Sr. No.9). | Scoping Document is being prepared for the establishment of new WG. |
| | Recommended to provide free on-line access to ICID Journal to 13 young professionals who received ICID scholarships to attend the 22 nd Congress in Gwangju. | Endorsed the recommendation. | Provided free on-line access to YPs. |
| 8. Newly proposed Working Groups | | | |
| | Recommended that the Scoping Document of new Working Group on Irrigation Development and Management (WG-IDM) be developed further and the proposal for establishing the new WG be presented at the 66 th IEC Meeting in 2015 in Montpellier. | Endorsed the recommendation. | The lead of the Core Team will present the SD at Montpellier. |
| 9. Report of the Sub-Committee to deliberate upon the themes, topics and work plan of future ICID Events | | | |
| | Recommended that the organizational structure for the Congresses shall continue to be guided by the procedure as laid down in the Handbook of Procedures. The Work Plans shall be developed by PH Bart Schultz and presented to the sub-Committee for its consideration and brought forward at the next meeting of PCTA in Montpellier | Approved the Guiding Principles for choosing the Themes for future ICID events vide Resolution IEC-3/65 (Sr. No.5). | The Guiding principles have been included in the Handbook of Procedures. |



REVISION OF MULTILINGUAL TECHNICAL DICTIONARY (MTD)

I. Background

The MTD consists of all technical terms related to irrigation, drainage, flood management, environment, river training and allied disciplines is a flagship publication of ICID widely consulted by irrigation community. The first volume was published in English and French languages in 1967. In 1996, MTD was thoroughly revised and a new hardcopy version of this second edition was published. With the change of time and technology the 3rd edition of the MTD (English-French) was brought out on CD-ROM in the year 2000 which was slightly modified as to 4th edition in 2002.

Soon after the release of first edition in 1967, NCs felt the need to translate this useful dictionary into their own local languages also for the benefit of their national professionals working in that language. This was primarily the objective of naming the dictionary as 'multilingual'. Thus, with the commendable efforts of the NCs, MTD has been translated so far in 14 languages in the past, besides English and French. These national versions of the MTD were initially translated based on the first edition published in 1967. Some of the National Committees later also brought out their next translated editions in local languages based on the revisions.

II. Latest Edition (5th) of MTD

For the latest 5th edition efforts were made in 2010 to really make the dictionary multilingual and NCs were requested to send their available translations in local languages in digital format. This edition consists of 9370 technical terms and 25 chapters. In this edition, in addition to English-French, the technical terms related to ICID activities made available by respective NCs in three more languages i.e. Chinese, Japanese and Russian were also included. As such, for these three additional languages term-to-term translation was not available due to various reasons. The 5th edition of the MTD includes the following Chapters:

| Chapters | |
|--|--|
| (1) General (statistics, units etc.); | (14) Construction materials; |
| (2) Hydrology; | (15) Construction techniques and equipment; |
| (3) River hydraulics; | (16) Automation in irrigation, drainage and flood control systems; |
| (4) Reclamation; | (17) Operation, maintenance and management; |
| (5) Head works; | (18) Soil and water conservation; |
| (6) Design of irrigation canals; | (19) Environmental impacts; |
| (7) Canal structures; | (20) Flood control; |
| (8) Project water management; | (21) Computer technology; |
| (9) Wells and drilling; | (22) Systems analysis; |
| (10) Pumping stations (lifting devices); | (23) Hydraulic research; |
| (11) Irrigation systems and distribution of irrigation waters; | (24) Project planning; and |
| (12) On-farm water management; | (25) Climate change. |
| (13) Design and construction of drainage systems; | |

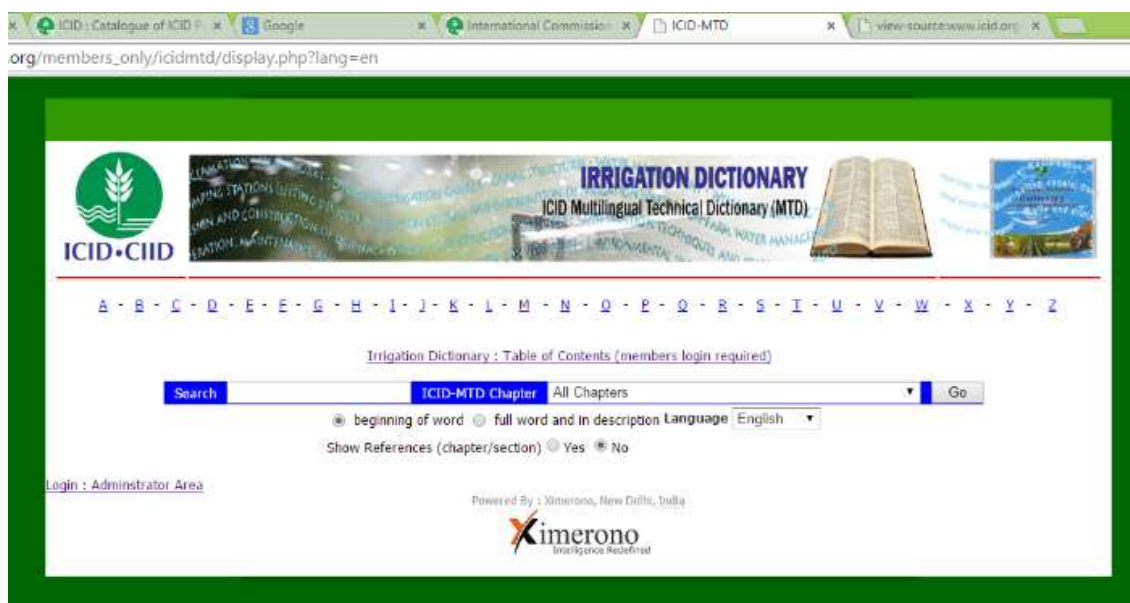
III. Proposal for Revision of MTD

The proposal is for the revision of the MTD and to make it available on the ICID website in the open domain as part of knowledge dissemination was made by VP Er. A. B. Pandya in his presentation on thematic area "Knowledge" during the 65th IEC meeting held at Gwangju, September 2014. This revision of MTD and bringing out an online version and subsequent periodical review is proposed to be carried out in following phases:

- Phase I: Exporting available terms to online version
- Phase II: Revising the structure of the MTD
- Phase III: Bringing compatibility between terms in different languages
- Phase IV: Regular updating the terms/ pictures/ and links

Phase I: Exporting available information to online version

The online MTD will serve the ICID community and all irrigation stakeholders by providing this rich open resources knowledge base. A web version of the MTD was developed with all the required language capabilities and a trial version of the prototype <http://www.icid.org/members_only/icidmtd> was made available online through ICID website.



Phase II: Revising the structure of the MTD

The latest edition of the MTD consists of more than 9000 terms and undertaking this revision/translation is a big task. With the developments in web technologies, many specialized international organizations have brought out their own terminologies and some of the chapters/terms are not relevant to the present situation. Considering these changes and to keep the focus on irrigation and drainage terms, the Existing 25 chapters have been categorized to deal with the concerned terms after prioritization with changing time. Accordingly, chapters are divided in three categories areas as shown in the table:

Priority wise listing of MTD Chapters

| Category 1 | Category 2 | Category 3 |
|--|--|---|
| (5) Head works; | (3) River hydraulics; | (1) General (statistics, units etc.); |
| (6) Design of irrigation canals; | (4) Reclamation; | (2) Hydrology; |
| (7) Canal structures; | (10) Pumping stations (lifting devices); | (14) Construction materials; |
| (8) Project water management; | (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; | (24) Project planning; | (21) Computer technology; |
| (12) On-farm water management; | | (23) Hydraulic research; |
| (13) Design and construction of drainage systems; | | (25) Climate change |
| (16) Automation in irrigation, drainage and flood control systems; | | |
| (17) Operation, maintenance and management; | | |
| (20) Flood control; | | |

Annex 2 [Continued]

All chapters listed in 'Category 1' are of top importance and comes directly in ICID domain. The chapters in 'Category 2' and 'Category 3', belong essentially to the terms that fall in the domain of expertise of other professional organizations. These specialized organizations are perhaps in better position to provide authentic definitions to these terms. It is therefore suggested that all the activities described in Phase I to Phase IV be carried out in respect of these terms.

Phase III: Bringing compatibility between terms in different languages


After exporting the terms belonging to chapters in category 1, the respective National Committees from China, Korea, Egypt, Indonesia, India, Japan, and Russia would be requested to help in bringing compatibility in the terms in each of the language with that of the base languages (English-French) wherever feasible. This will make the product serve as multilingual dictionary.

Phase IV: Regular updating the terms/ pictures/ and links

ICID workbodies are the knowledge base of ICID consisting of experts nominated by various National Committees. Keeping in view the vast knowledge and experience of the participating experts, WGs would be requested to undertake the responsibility to review the MTD to enrich the knowledge base as per their areas of specialization. The WGs will be required to:

- Identify new terms required to be included
- Review the existing chapters/ terms/ definitions
- Updating the existing terms
- Sharing right picture/ drawing to enhance the visual impact
- Sharing related video links
- Adding interesting links related to the subject (term)

All contributors will be acknowledged in the respective sections.

| Sample MTD Term | |
|---|--|
| <p>2327. Dam: A barrier usually on an important scale across a watercourse, for the purpose of impounding water or creating a reservoir (i) to raise water level, (ii) to divert water therefrom into a conduit or channel, (iii) to create a hydraulic head that can be used to generate power, (iv) to improve river navigability by means of regulated releases of stored water, and (v) to retain debris.</p> <p>Additional links: Biggest Dams in The World; The Three Gorges Dam is the largest hydro-electric dam in the world; and List of tallest dams in the world.</p> |  |



**WORKING GROUP ON
IRRIGATION DEVELOPMENT AND MANAGEMENT (WG-IDM)**

DRAFT SCOPING DOCUMENT

1. Introduction

- 1.1 Developing irrigation is undoubtedly essential for meeting the challenge of properly feeding the planet for the next decades. But it will not be achieved without managing water in irrigation, aiming ultimately at producing more food with less water. Water management in irrigation must deal with quantities withdrawn from natural environment or made available at the end of another usage, and returning to environment or to another usage, but also with the quality of abstracted and returned water. It requires therefore a clear distinction, understanding and application of 'consumptive' and 'non-consumptive' water use, with beneficial and non-beneficial irrigation on the one side, and recoverable and non-recoverable drainage on the other (Perry, 2007)². It is commonly understood that 'non-consumptive' water use does not substantially change the withdrawn water. But one must keep in mind that a 'substantial change' may be defined differently in different countries (FAO, 2010)³.
- 1.2 Water from various origins is used to supply irrigation: Surface water from close resource or transported on long distance, groundwater from shallow water tables or from deep aquifers as well. Multiple resources may be available at the same place, differing in operation cost, in quantity and in quality. Other usages may compete with irrigation. Therefore, an assessment of the total amount of water available during an irrigation season is essential for determining the optimal consumptive as well as non-consumptive use, the latter remaining available for a second usage. Dependent on the local conditions, groundwater irrigation may be more efficient than surface water schemes. Both may be used together on the same spot. However, especially in arid and semi-arid conditions, there is often a need to stop over-exploitation and ensure sustainable use by technological and institutional interventions so that, where possible, storages could be used during the drought periods.
- 1.3 There are many successful practices, and research findings potent works and non-conventional pathways of achieving irrigation development and management in a way which will allow increasing food production while decreasing pressure on water resources. A few of them are rated as outstanding contributions in water conservation across the world. Many go unrecognized, as well. There is urgent need to explore all those innovations and share with stake holders i.e. irrigation managers and policy makers. There is also need to strengthen the process of transfer and dissemination of water management skills to the farmers and their organizations, from professional experts, consulting firms, international organizations, through feedback on success stories as well as lessons learnt from failures.
- 1.4 In this Scoping Document the relevant aspects of each of these items will be reviewed and the objectives, state of knowledge on the topic and the Workplan will be presented.

2. Objectives

- 2.1 Relevance of the Working Group: The relevance of the WG can be specified as follows:
 - (i) the topic of water management in irrigation is relevant to the vision and mission of ICID and of interest for its members, in all countries with a high, medium and low Human Development Index⁴;
 - (ii) the WG is expected to contribute to effective implementation of the Strategy Theme Schemes and to other strategy themes for that matter;

² Perry, C., 2007. Efficient irrigation; inefficient communication; flawed recommendations. *Irrigation and Drainage*, v. 56, no. 4, p. 367-378.

³ Amit Kohli, Karen Frenken, Cecilia Spottorno - AQUASTAT Programme – FAO, 23 September 2010, revision 23 May 2012

⁴ Low Human Development Index. Most of the countries in Africa, several countries in Asia, one country in Central America and most of the smaller countries in Oceania;

Medium and High Human Development Index. Most of the Eastern European countries (including Russia), most of the countries in Central and South America and in Asia (including China, India, Indonesia and Pakistan) and several countries in Africa;

Very High Human Development Index. Most of the countries in Western and Central Europe, North America and some countries in Central and South America and in Asia, the larger countries in Oceania and one country in Africa.

Annex 3 [Continued]

- (iii) sustainable water management in irrigation is of crucial in many regions of the World, especially in the arid and semi-arid zones where water scarcity and mining of groundwater resources is a well-recognised problem;
- (iv) worldwide, there is still confusion on the issue of thrifty use of water. ICID has taken a clear position with respect to this item, based on the paper by Chris Perry (2007). Water saving can only successfully be evaluated by comparing the disposition of water before an intervention and the disposition afterwards. In its activities, especially with respect to water management of irrigation in arid and semi-arid areas, the WG can prepare clear messages with respect to this important issue;
- (v) development and sustainable management of irrigation is part of integrated water resource management, a key issue for achieving human development goals as regards access to quality food, drinking water and sanitation.

2.2 Relevance of the Working Group to the scope of the Thematic Area

2.2.1 Sustainable water management at both resource and system level is not only an important requirement in support of global food production, but also for the livelihood of the rural population and for environment. In addition there is the important aspect of integrated river basin management where irrigation is generally the major water user. In quite numerous systems there is 'over' irrigation, which may result in waterlogging, salinization and wasting of water. On the other hand 'deficit' irrigation may result in yield reductions and salinization of the root zone. Therefore a crucial question is what would be optimal water development strategy and management approach in irrigation under the local conditions. The WG will be exploring the subjects under its scope from perspective of "schemes" and thus is relevant to the Thematic Area.

2.3 Existing gap that the Working Group is expected to fill

2.3.1 WG-IDM will address several issues not fully included in past WGs' scope of works, for instance Groundwater management and more globally IWRM. Working on both irrigation development and its management, it will allow bridging possible divides through integrated approaches. Taking into consideration the actual multiple use of water in irrigation schemes should allow better assessing the global water needs, quantity wise as well as quality wise.

2.3.2 Other ICID WGs or Task Forces (TF) that have a related scope of work are: WG-ON-FARM, WG-DROUGHT and WG-CROP. The scope of new WG-WSI, WG-R&M, WG-IMT and WG-DRG is also more or less related to the issues to be addressed by WG-IDM.

2.3.3 The new WG has taken good note of the mandate and activities of these Workbodies when preparing this Scoping Document. It will keep paying attention that neither redundancy nor gap will exist between his work and other WG's one.

3. State of knowledge on the topic

3.1 Other International Organisations that are working on the subject

3.1.1 There are several other International Organisations that have programs and activities on this topic. This especially concerns the:

- (i) Food and Agriculture Organisation of the United Nations (FAO);
- (i) most of the 15 research institutes that are organised within the CGIAR Consortium, especially IWMI, ICARDA, IFPRI, ICRISAT;
- (ii) International Fund for Agricultural Development (IFAD);
- (iii) other research institutes and Universities;
- (iv) professional international water associations, like: IAH, IAHR, ICOLD, IHA, IWA, IWRA, as well as national ones not incorporated within ICID;
- (v) multilateral development banks: ADB, AFDB, IADB, WB;
- (vi) international partnerships: GWP, OECD, WWC;
- (vii) institutes for international education: UNESCO-IHE...

Annex 3 [Continued]

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

3.2.1 The specific niche that this WG can fill on the issue bulleted under “Scope” can be formulated as follows:

- (i) to exchange information and network on the issues in order to be up to date with new developments, methods and approaches;
- (ii) to review and prepare a condensed overview of existing key books, manuals, guidelines and other relevant publications on the issues;
- (iii) to prepare and present reports and/or case studies on recent development in the countries that are represented in the WG;
- (iv) to collect and review manuals, guidelines and standards on sustainable water management in irrigation in the countries that are represented in the WG;
- (v) to consult with ICID Central Office on the continuation of data collection with respect to developments in irrigation methods in the Member Countries (MC);
- (vi) to organise international workshops, seminars or symposia on the issue;

3.2.2 This can be the basis to present recommendations and if mature a position paper on key issues on developing irrigation and sustainable water management, and in fine to prepare an overview paper on the state of the art on the topic for publication in *Irrigation and Drainage (IRD)*.

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

3.3.1 International Organisations can contribute to the activities of the WG by nominating Permanent Observers (PO). On the other hand presentations of the work and achievements of the WG can be presented at the occasion of events organized by International Organisations.

4. Work Plan

4.1 Hereafter is proposed a tentative Work Plan, which of course has to be enriched by the WG itself during the first step of its work.

4.1.1 Scope

The WG is expected to investigate, analyse, and disseminate information on new developments and to formulate recommendations with respect to:

- (i) water resource governance;
- (ii) integrated water resource management;
- (iii) water balance approach in irrigation (and other ancillary uses);
- (iv) assessment of evaporation and evapotranspiration;
- (v) groundwater management;
- (vi) conjunctive use of surface and groundwater in irrigation;
- (vii) artificial recharge of aquifers;
- (viii) management of multi-use hydraulic systems;
- (ix) performance evaluation of irrigation schemes;
- (x) re-use of treated waste water;

4.1.2 Target audience

The target audience for this working group will be managers of irrigation systems, consultants, researchers, government agents, farmers' organizations, manufacturers and staff of International Organisations working on the topic.

Annex 3 [Continued]

4.1.3 Outputs

The following outputs can be expected from this WG:

- (i) although it is an indirect output sharing of knowledge and experience by representatives of NCs will also enable them to disseminate this knowledge within their country;
- (ii) guidelines on sustainable water management in irrigation;
- (iii) condensed overview of existing key books, manuals, guidelines and other relevant publications on the topic;
- (iv) the WG is expected to organise at least one workshop, seminar or symposium in three years at occasion of an international ICID meeting;
- (v) overview paper on the state of the art on the topic for publication in *Irrigation and Drainage (IRD)*

4.1.4 Timelines

While irrigation development and water management in irrigation are very important issues in light of its role in support of global food production it is recommended that the initial term of this WG will be set at six years. The timeline would have to be based on the scope of work and the expected output. Details of the timeline would have to be formulated and refined during the inaugural meeting of the WG.

4.1.5 Collaborators and dissemination strategy

The WG would have to base its activities on an open attitude with a clear scope for invitation of outsiders that are interested in the topic on a PO, or ad hoc basis.

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



**WORKING GROUP ON
CAPACITY DEVELOPMENT, TRAINING AND EDUCATION (WG-CDTE)**

DRAFT SCOPING DOCUMENT

Prepared by VP Er A. B. Pandya, Chairman, INCSW

1. Introduction and rationale

- 1.1 The great challenge for the coming decades will be to increase food production with less water, particularly in countries with limited water and land resources. The effective and sustainable use of water for agriculture has become a global priority of vital importance, requiring urgent and immediate solutions in view of intensifying competition. The importance of Capacity Development for attaining sustainable developments in irrigation, drainage and flood management sectors is fully realized.
- 1.2 The consensus among policy-makers in the developing world is that a lack of capacity is constraining the development of irrigated agriculture. Although this concern is not new, it is now receiving much attention in the irrigation and drainage world, where it is becoming an issue in its own right due to the increasing complexities of development, multi-disciplinary nature of solution for sustainable solutions, the close linkages between water-food-energy, impacts of climate change, rapid changes in the irrigation and drainage sector, the need to bring together various stakeholders who might not necessarily be experts.

2. Objectives

2.1 Relevance of the Working Group (WG)

- 2.1.1 It is evident that in order to meet growing food demand for rapidly growing world population the second green revolution has to be centered on the smallholder farmers in Africa and improved water use efficiency and production in large irrigation systems in Asia. A lack of capacity is identified as a constraint to the development of productive and viable irrigated systems. Both Asia and Africa will need a well-informed, skilled and technology savvy contingent of agriculture scientists, irrigation engineers, and extension service workers to support this effort. Capacity development has to be linked to the overall goal of the sector and serve the purpose of the ultimate beneficiaries – the irrigation community. There is need for systematic capacity development of both institutions and individual in terms of developing enabling environment for institutional reforms and good governance, supporting institutional capacity, and supporting policy development.
- 2.1.2 The capacity development activities are presently being undertaken by the WGs and CO in an unorganized and ad-hoc basis. There is need to fill this gap that has been existence since 2007 when the WG-CBTE was closed. At that time also the WG had recommended that there is need to keep this WG going-on, but it was not possible at that time. It is high time that a new WG for capacity development is established when at present we are in the process of developing a new vision, and capacity development is recognized as one of the six goals to realize its vision.

2.2 Relevance of the Working Group to the scope of the Thematic Area

- 2.2.1 Knowledge and its management is key to the capability of an institution, sector or nation to implement its policies for AWM including success of any professional network in fulfilling its vision and same is true for ICID also. It is crucial that generation, extraction consolidation/compilation, synthesis, packaging and dissemination of information and knowledge in the field of irrigation, drainage and flood management is given the right priority it deserves in order to fulfill the mission of ICID. Fast changing technologies influence the knowledge process and present a challenge on one hand and an opportunity on the other. As such the capacity development is a continuous process, therefore, the proposed Working Group on Capacity Development will be one of the WGs under the theme Knowledge.

2.3 Existing gap that the Working Group is expected to fill

- 2.3.1 That there exist gaps in global efforts in dissemination of knowledge is borne out by the existence of instances where highly useful and practical innovations did not succeed due to lack of dissemination of knowledge about appropriate techniques. Presently a lot of innovations and knowledge is available in the sector which does not reach the stakeholders concerned. It is necessary to ensure that this knowledge is tailored to the needs of irrigation professionals and other intermediaries such as extension service personnel and NGO volunteers, who can help the farmers in their efforts to generate more income per unit of water and land. It is

therefore essential that the available knowledge is widely shared and transferred, particularly on the outcomes of the latest researches being made in the fields of irrigation and drainage, to the end users at the field level.

- 2.3.2 The various Working Groups of ICID, through their activities help generate, extract, compile, and synthesize the available knowledge. At the same time ICID technical Working Groups compile some of the knowledge in the form of reports, manuals and guidelines. These outputs are publicized on their respective web pages so as to make the information available to all interested. Some of the chairs and members of the workbodies use their website as an effective way for dissemination of this knowledge.
- 2.3.3 Central Office is facilitating the sharing of this knowledge across a wide spectrum of stakeholders by making use of ICID Web pages. Initiatives have been taken to help members to get the latest information and to meet the growing requirements of the professionals. Some of the efforts that are being made by the Central Office in this direction are described in pamphlet “New Services from ICID Central Office”.

3. State of knowledge on the topic

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

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

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

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

3.2.1 WG-CBTE (1995-2007) had been reasonably successful in accomplishing its mandated tasks. However, like many other Working Groups in ICID, it also suffered from a lack of continuity from year to year. The Group had organized four workshops wherein it was agreed that the workshops conducted by the Group were productive in disseminating the importance of Capacity Building for attaining sustainable developments in irrigation, drainage and flood management sectors.

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

3.3.1 Like in the past FAO will be the major partner in this WG. In addition, other International Organizations such as IFAD, IWMI, UN-Water, WWC, GWP, WMO partners would be invited to participate as observers. They will have the possibilities to share the initiatives and achievements of the WG. The adoption of a policy to make all knowledge products of the WG available on an open source basis in line with the Creative Commons will facilitate this collaboration.

4. Work Plan

4.1 *Capacity development constitutes the capacity of the individual, institution, legal framework and stakeholders.*

4.1.1 *Scope*

- (a) Coordinate and guide the knowledge management activities of the Commission and the capacity development activities by various WGs.
- (b) Compile the status of training and educational programmes offered in different regions,
- (c) Compile the Educational Programs being offered in Irrigation and Drainage in different regions;
- (d) 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;

- (e) Explore the scope of use of IT in capacity development including distant learning, and implement where feasible;
- (f) Make available various tools required for sustainable development;
- (g) Oversee the establishment and functioning of a Technical Support Unit for supporting NCs; and
- (h) Facilitate the process of balancing education and training requirements, and provision and training services.

4.2 Target audience

4.2.1 The main target audience of the activities of the WG will be the in-service irrigation and drainage professionals, professionals from the other sector associated with AWM related activities, intermediary or extension-service providers and professionals from the NGOs working at the Farm level.

4.3 Outputs

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

- (a) Possible establishment of a distance learning mechanism;
- (b) Identification of the required guidelines, manuals and position papers etc required and assessment of their availability;
- (c) Monitoring of the guidelines preparations by WGs etc;
- (d) An online directory of institutes providing formal degree in Irrigation and Drainage;
- (e) A well established and functional TSU;
- (f) Various tools made available in public domain; and
- (g) Training workshops successfully organized.

4.4 Collaborators and dissemination strategy

4.4.1 The WG would have to base its activities on an open attitude with a clear scope for invitation of outsiders that are interested in the topic on a Permanent Observers (PO) or adhoc basis. The capacity development strategy would have to be based on reaching those who can apply the findings and recommendations of the WG in their research and especially in policy development, decision making and implementation in practice.





ICID•CIID

INTERNATIONAL COMMISSION ON IRRIGATION & DRAINAGE

Technical Support Unit

CONCEPT NOTE

1. The great challenge for the coming decades will be to increase food production with less water, particularly in countries with limited water and land resources. The effective and sustainable use of water for agriculture has become a global priority of vital importance, requiring urgent and immediate solutions in view of intensifying competition. The importance of Capacity Development for attaining sustainable developments in irrigation, drainage and flood management sectors is fully realized.
2. The consensus among policy-makers in the developing world is that a lack of capacity is constraining the development of irrigated agriculture. Although this concern is not new, it is now receiving much attention in the irrigation and drainage world, where it is becoming an issue in its own right due to the increasing complexities of development, multi-disciplinary nature of solution for sustainable solutions, the close linkages between water-food-energy, rapid changes in the irrigation and drainage sector, the need to bring together various stakeholders who might not necessarily be experts. Moreover many countries are facing shortage of qualified technical persons.
3. Keeping in view the need of capacity building, education and awareness of technical staff working in the field of agriculture water management there is proposal to set up a working group catering to these needs (WG-CDTE).
4. As part of this WG-CDTE, it is proposed to set up a Technical Support Unit (TSU) with the overall objective to
“Undertake capacity development activities in the field of agriculture water management (AWM) in support of rural development”.
5. The broad scope of TSU would be to
 1. Coordinate capacity development programs of ICID;
 2. To liaise in developing a knowledge base in AWM with the help of ICID working groups, partner institutions and member countries;
 3. To support the member countries in
 - a general assessment of gaps in AWM capacities within the countries and suggest possible solutions
 - b developing feasibility reports for small and medium irrigation, drainage and flood management proposal,
 - c training assessment needs; and
 - d undertaking capacity development programmes
6. **Funding:** In order to ensure smooth functioning of TSU it is suggested to establish a **Capacity Development Fund** that would be supported by member countries on a voluntary basis.
7. **Mechanism:** Technical support unit, which is proposed to be sub-set of WG-CDTE, will consist of distributed network of expert volunteers who commit to dedicate a maximum of ten man days to the TSU activities with a coordination unit within the Central Office that would help locate these experts. In addition,

Members or partner institutions would be requested to depute personnel to the coordination unit of TSU located in Central Office from time to time, as required.

8. A **Core Group** will have to set up to finalize the work program of TSU and review and monitor progress of activities of TSU. Core group may consist of President ICID, Chair of PCTA and PCSO, Chair of AFRWG and ASRWG, Chair of WG-CDTE (when established), nominees of the contributing Members and partners and Secretary General, ICID as Convener.

APPENDIX IX [PCTA Item 7.5]

**AGENDA FOR THE 22ND MEETING OF THE
ICID JOURNAL EDITORIAL BOARD (EB-JOUR)**

13 October 2015, 09.30-10.30 hours
Montpellier, France

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.

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

EB-JOUR Agenda Item 1: Action Taken Report by Chair (from Editor, Chairman)

1. The report of the Chairman for 2014 has been disseminated to the members of EB-JOUR before the meeting. Various points emerging from the report will be presented at the beginning of the meeting and will be discussed during the meeting.

EB-JOUR Agenda Item 1.1: Special Issues

2. At present four new Special Issues may be expected in the coming period. These concern:

- (a) Special Issue in the regular series with selected papers of the Gwangju (Korea) Congress (2014);
- (b) Sponsored Special Issue with selected papers, in principle based on Gwangju Congress papers by authors from Asia;
- (c) Sponsored Special Issue with selected papers in principle based on Gwangju Congress papers by Korean Specialists;
- (d) Sponsored Special Issue on New Developments on Irrigation in Africa.

This is for information of the members.

3. In addition, two other sponsored Special Issue may be expected, they being:

- (a) Sponsored Special Issue by the Working Group on Sustainable Development of Tidal Areas (WG-SDTA) based on selected papers from the workshops of the Working Group in 2014 and 2015. The Special Issue is expected to be published in 2016.
- (b) Sponsored Special Issue by the Iranian National Committee (IRNCID) will be based on selected papers of the 13th International Drainage Workshop, Iran in 2017.

This is for information for information of the members.

EB-JOUR Agenda Item 1.2: French resumés

4. For all submitted papers, Bernard Vincent (France) has checked the French Titles and Resumes.

EB-JOUR Agenda Item 1.3: Recognition to the reviewers

5. The Guest Editors and Reviewers of papers in 2014 have been listed and recognized in the first issue of the Journal in 2015.

6. If reviewers would wish so, a certificate stating their work for *Irrigation and Drainage* can be issued.

EB-JOUR Agenda Item 1.4: Best Paper Award 2015

7. In 2014, sixty nine papers were published. The best paper has been selected by the Chairman in cooperation with the Joint and the Associate Editors from these papers. The Best Paper Award in the form of a citation plaque along with a cash prize of either £ 250 [or £ 400 – in the form of Gift Books (Wiley Publications) which the awardees will have an option to choose]. The winner of the 'Best Paper Award 2015' will be announced during the IEC meeting on 12 October 2015.

EB-JOUR Agenda Item 2: Review of the membership of the Working Group

EB-JOUR Agenda Item 2.1: New membership

8. In order to increase the efficiency and functioning of the Working Group during annual face to face meeting and avoid spending a lot of time on administrative matters, MB has decided that the admission of new members or discontinuation of the membership of the group will be dealt by Chairman in consultation with Vice Chair, secretary and ICID Central Office prior to the meeting itself through emails/ web conference. Accordingly, the updated membership of the WG based on the nominations received as of now can be seen in **Annex** (see *the electronic version for the latest list*). Any new nominations for the membership received during the meeting will be dealt suitably after the meeting.

9. New nomination of Prof. Graziano Ghinassi (Italy) has been received from the Italian National Committee of ICID (ITALCID). The EB recommends that his membership for the EB-JOUR as Associate Editor may be accepted.

SUPP.: The Hungarian National Committee of ICID has nominated VPH Dr. Laszlo Hayde (Hungary) as Associate Editor for the membership of EB-JOUR. CV of VPH Hayde is attached for consideration.

EB-JOUR Agenda Item 2.2: Joint Editors

10. Prof. Hector Malano desires to step down as Joint Editor from the EB-JOUR. After consultation with the Joint Editors and M/s. Wiley, the Chairman has contacted the Associate Editor Prof. Jiusheng Li (China), if he would be willing to become the Joint Editor. Prof. Jiusheng Li has since confirmed his willingness to become the Joint Editor. The Chairman thus proposes to accept Prof. Jiusheng Li as the Joint Editor effective from January 2016.

EB-JOUR Agenda Item 2.3: Editor Emeritus

11. At present, the former Joint Editor Paul van Hofwegen (The Netherlands) is the Editor Emeritus. The Chairman has contacted him with the request to conclude his tenure (2008-2015). Paul van Hofwegen has since agreed with the proposal. EB may accept his resignation as Editor Emeritus.

12. While Prof. Hector Malano will step down as Joint Editor, the Chairman proposes Prof. Malano to be the new Editor Emeritus. The EB may accept this proposal.

EB-JOUR Agenda Item 3: Experiences with reviewers

13. The Chairman and members may share their experiences in reviewing the papers of I&D Journal.

EB-JOUR Agenda Item 4: Distribution of the Journal among the ICID membership

14. This year is the second year under the fourth Agreement (2014-2018) with M/s Wiley-Blackwell, UK. Under this Agreement, National Committees are entitled to receive five copies of the Journal online + print and five copies as online only. After consultation with the National Committees, the list of members for distribution of IRD in 2015 to the National Committees and work body members and office bearers has been timely sent by Central Office to M/s. Wiley, with an update in June 2015. It is important that all National Committees timely submit their revised contact details, if any, to get the copies properly and timely disseminated.

15. The ICID subscription list includes the new category of Direct Members and the recipients of ICID YP scholarship. The number of subscriptions for the year 2015 are **415** online only, **157** online + print and **125** 'print' only, which makes the overall total as **697**.

16. Due to the fact that still some National Committees have not provided ICID Central Office the required information on the dissemination of the 5+5 free copies, not all the 800 copies under the Agreement could be subscribed in 2015. Members may also like to discuss the repercussion of moving on to 100 per cent on-line access of I&D Journal in view of the recent experiences/complaints from some NCs.

EB-JOUR Agenda Item 5: **Issus related to M/s Wiley-Blackwell**

17. The regular contacts with M/s Wiley-Blackwell are very effective and the publisher is very well catching up with new developments in the publishing world. Details are given in the Chairman's report of 2014 and will be communicated to members during the meeting.

EB-JOUR Agenda Item 6: **Any other business**



NOTES FOR CHAIRPERSON:

1. Draft minutes of this meeting to be submitted to ICID Secretariat at Montpellier (France) after the meeting.
2. Chair to participate and present the WG report to PCTA meeting on 15 October 2015.

A. Members and their attendance at 2013 and 2014 Meetings

| Sl. No | Members | Member From | 2013 | | 2014 | | Remarks |
|--------|--|-------------|------|---------------------|------|---------------------|---------|
| | | | Self | Contributed by mail | Self | Contributed by mail | |
| 1. | President Hon. Dr. Bart Schultz, Chairman (The Netherlands) | 2002 | • | | • | | |
| 2. | VPH Prof. Hector Malano, Joint Editor (2008) (Australia) | 2001 | | • | | • | |
| 3. | Prof. Dr. Kristoph-Dietrich Kinzli P.E., Joint Editor (2012) | 2010 | | • | | • | |
| 4. | Ir. Paul J.M. van Hofwegen, Editor Emeritus (2008) (The Netherlands) | 2001 | | • | | • | |
| 5. | Dr. Bryan P. Thoreson, Associate Editor (USA) | 2001 | | • | | • | |
| 6. | Dr. Benjamin de León Mojarro, Associate Editor (Mexico) | 2005 | | | | | |
| 7. | Dr. Marcel Kuper, Associate Editor (France) | 2009 | | • | | • | |
| 8. | Mr. Bernard Vincent, Associate Editor (France) | 2010 | • | • | • | | |
| 9. | Prof. Daniele de Wrachien, Associate Editor (Italy) | 2001 | | • | | • | |
| 10. | Dr. Takao Masumoto (Japan), Associate Editor | 2011 | • | | • | | |
| 11. | Dr. Nick C. Van de Giesen, Associate Editor (2013) (The Netherlands) | 2007 | | • | | • | |
| 12. | Prof. Leon van Rensburg (South Africa), Associate Editor | 2013 | • | | | • | |
| 13. | Dr. Biju George (Australia), Associate Editor (2014) | 2013 | • | | | • | |
| 14. | Prof. Waldo Ojeda-Bustamante Associate Editor (2014) | 2014 | • | | • | | |
| 15. | Prof. Kendall C. DeJonge (USA) Associate Editor (2014) | 2014 | | | | • | |
| 16. | Prof. Saleh Taghvaejan (USA) Associate Editor (2014) | 2014 | | | | • | |
| 17. | VPH Larry D. Stephens (USA) | 2001 | • | | • | | |
| 18. | Dr. Muhammad Latif (Pakistan) | 2002 | | • | | • | |
| 19. | Prof. Yih Chi Tan (Chinese Taipei) Associate Editor (2013) | 2006 | | • | | | |
| 20. | Dr. Yohei Sato (Japan) | 2009 | • | | • | | |
| 21. | Prof. Ir. Dr. Mohd Amin bin | 2009 | • | | | • | |

| Sl. No | Members | Member From | 2013 | | 2014 | | Remarks |
|--------|--|-------------|------|---------------------|------|---------------------|---------|
| | | | Self | Contributed by mail | Self | Contributed by mail | |
| | Mohd Soom (Malaysia) | | | | | | |
| 22. | Dr. Mohammad Javad Monem (Iran) | 2011 | | • | | • | |
| 23. | Prof. Dr.-Ing. Klaus Rottcher (Germany) | 2011 | • | | | • | |
| 24. | Dr. Li Jiusheng (China) | 2012 | • | | • | | |
| 25. | Dr. Henk Ritzema (The Netherlands) | 2013 | • | | | • | |
| 26. | Prof. dr. Joong Dae, Choi (Korea) | 2013 | • | | • | | |
| 27. | Mr. Brent Paterson (Canada) | 2013 | | • | | • | |
| 28. | Ir. Simon Howarth (UK) | 2014 | | | | • | |
| 29. | Dr. Vijay Labhsetwar (ICID Central Office) | 2006 | | • | | • | |

B. New nomination received from the National Committee

| Sl. No. | Name | Country | Remarks |
|---------|--|----------------|--------------------------------|
| 1. | Prof. Graziano Ghinassi, Associate Editor | Italy | Recommended by Chairman |
| 2. | VPH Dr. Laszlo Hayde (Hungary) as Associate | Hungary | Recommended by Chairman |

**AGENDA FOR THE INFORMAL MEETING OF
WORKING GROUP ON IRRIGATION DEVELOPMENT AND MANAGEMENT (WG-IDM)**

13 October 2015, 09.00-10.30 hours

Montpellier, France

Strategy Theme: Schemes

A. Introduction of the new Working Group

1. At the 65th International Executive Council (IEC) held at Gwangju in September 2014, VP François Brelle presented the draft Scoping Document (**refer PCTA Annex 3**) for the new Working Group on Irrigation Development and Management (WG-IDM). However, due to lower attendance of participants for this new WG, the Council accepted the recommendation of Permanent Committee for Technical Activities that the Scoping Document be developed further and the proposal for establishing the new WG be presented at the 66th IEC meeting in Montpellier in 2015.
2. The proposed scope of activities of the WG as agreed by the Core Group is as follows:
 - (a) water resource governance;
 - (b) integrated water resource management;
 - (c) water balance approach in irrigation (and other ancillary uses);
 - (d) assessment of evaporation and evapotranspiration;
 - (e) groundwater management;
 - (f) conjunctive use of surface and groundwater in irrigation;
 - (g) artificial recharge of aquifers;
 - (h) management of multi-use hydraulic systems;
 - (i) performance evaluation of irrigation schemes;
 - (j) re-use of treated waste water;
3. Chair of the Core Group Vice President François Brelle will present the updated Scoping Document at the Montpellier meeting for discussion among WG members and its finalisation. The consensus scope would be presented by the representative/elected Chair of the group to PCTA in its meeting on 15 October 2015 for approval by the IEC. The formal inaugural meeting of the WG will take place at the 67th IEC in Chiang Mai in November 2016.

B. Membership of the group

4. Following nominations are received from the National Committees for the membership of the new WG-IDM:
 - (a) Dr. Katsuyuki Shimizu (Japan)
 - (b) Mr. Mohammad Kazem Siah (Iran)

SUPP.: The Chinese National Committee (CNCID) has nominated Dr. Wu Jingwei for the membership of the group.
5. The experts attending this informal meeting will chose a chair for the group and refine the scope of the WG.



APPENDIX XI [PCTA Item 5.4]

**AGENDA FOR THE 30TH MEETING OF THE
WORKING GROUP ON COMPREHENSIVE APPROACHES TO
FLOOD MANAGEMENT (WG-CAFM)**

13 October 2015, 11.00-12.30 hours
Montpellier, France

Strategy Theme: Basin

Presented by the Chairman

Year of Establishment: 1999

Completion of the Mandate: 2015

Mandate: To identify and disseminate various structural and non-structural measures of flood management, and to study the social, political and economic aspects of flood mitigation measures, ecologically sound development, international cooperation, as well as people's participation in disaster preparedness. The objective is to help the planners, managers and designers setting up holistic, integrated and adaptive flood management schemes in view of uncertainties resulted from the climate and hydro systems changes.

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

WG-CAFM Agenda Item 1: Action Taken Report by Chair

The Chair may like to present a report regarding actions taken on the various decisions taken during the last meeting of the WG at Gwangju (2014).

WG-CAFM Agenda Item 2: Review of the membership of the Working Group

1. In order to increase the efficiency and functioning of the Working Group during annual face to face meeting and avoid spending a lot of time on administrative matters, MB has decided that the admission of new members or discontinuation of the membership of the group will be dealt by Chairman in consultation with Vice Chair, Secretary and ICID Central Office prior to the meeting itself through emails/ web conferencing.
2. New nomination of Mr. V.D. Roy (India) has been received from the Indian National Committee on Surface Water (INCSW).
3. In case the new nominee is not present during the membership, the nomination may be accepted as 'Provisional Member' for one year. The new nominee would be expected to contribute to the activities of the working group by actively participating in the WG meetings, by e-mail or video-conferencing during the year for regularizing the membership of the WG thereafter.
4. Mr. R.K. Agarwal, Direct Member (India) and Dr. Rozalija Cvejic (Slovenia) were nominated as 'Provisional Member' of the WG at Gwangju meeting in 2014. Dr. Cvejic informed in June 2015 that she had already contributed a technical paper for the publication of the WG titled 'Adaptive flood management' and also contributed abstract for WG meeting at Montpellier (France) meeting. Mr. R K Agrawal informed in August 2015 that he could not attend last meeting due to unavoidable circumstances and confirmed his participation in the next meeting of Group in October, 2015 at Montpellier. He also assured to actively contribute to the activities of Working Group through email etc.
5. On the basis of non-attendance, non-participation, no communication with ICID (ICID by-law 3.5) during the last 2 or more consecutive years, discontinuation of membership of Mr. Marcel Marchand (The Netherlands) is recommended.
6. Accordingly, the updated membership of the WG-CAFM and their attendance at last two meetings i.e. 2013 and 2014 along with recommendations is given in the **Annex 1** (see the electronic version for the latest list). Any new nominations for the membership received during the meeting will be dealt suitably after the meeting..

7. Prof. Dr.-Ing. Klaus Rottcher (Germany), Vice-Chairman of the WG since 2012, informed German's inability to reactivate its membership of ICID and accordingly desired to step down. In view of this development, the Group may like to elect its new Vice-Chairman in place of Prof. Rottcher in the next meeting of WG-CAFM in October 2015 at Montpellier, France.

SUPP.: Dr. Kamran Emami, Chairman of the WG-CAFM has informed (20 September 2015) the members of the WG-CAFM that Dr. Marcel Marchand (The Netherlands) actively contributed his paper on the publication titled "Adaptive Flood Risk Management" during the seminar in Montpellier, France in October 2015. However, his name is showing in the Montpellier Agenda of the WG-CAFM (Item 2, para 5) as discontinuation under the ICID By-Law 3.5, which will now be continued as member.

WG-CAFM Agenda Item 3: Presentations on Floods (Country Case Studies)

8. On behalf of French National Committee, Ir. Pauline Bremond, from IRSTEA Research Laboratory, France will make two country presentations related to Floods and its management in France (country case studies) - one in the workshop and another in the WG meeting at Montpellier, France in October 2015.

WG-CAFM Agenda Item 4: Publications of the Working Group on 'Adaptive Flood Management'

9. During the last meeting, the WG Chair presented a draft document on 'Adaptive Flood Risk Management' based on the workshop papers and country presentations on floods and it was agreed that the draft document of the WG would be peer reviewed and improved by the members and final document will be published by the next meeting of WG in October 2015. The matter was also discussed in PCTA/IEC meeting who emphasized need to ensure that the publication is not just a compilation of practices of different countries but should give guidelines on proper flood management strategies and suggested to integrate earlier publication of the WG titled "Non Structural Approach to Flood Management" to make it a comprehensive reference work on knowledge in Flood Management including discussions on the field experiences of the implementation of disaster management strategies.

SUPP.: Ir. Mohd Adnan bin Mohd Nor (Malaysia) will make a country paper on Flood Management during the WG meeting.

10. In order to enrich the contents of the publication, member of the WG from Malaysia was requested to send the country report of Malaysia for inclusion in the document of the WG in addition to country reports already available from Turkey, Germany, USA and Canada. Chairman may like to discuss the present status of publication and take a view as the mandate of the Group comes to an end in 2015.

WG-CAFM Agenda Item 5: International Workshops

WG-CAFM Agenda Item 5.1: WG International Workshop on 'Adaptive Flood Risk Management' at Montpellier, France in October 2015

11. The Working Group will be organizing an International Workshop titled "Non-Structural Adaptations to Flood Management" on 12 October 2015 from 14:00 hours to 17:30 hours at Montpellier, France. The sub-topics are: (a) Flood risk management as an adaptation tool; (b) Flood mapping: program and techniques; (c) Public awareness and participation in flood management activities; (d) Flood emergency and response activities; and (e) Flood Insurance: Issues and challenges. Chairman may like to include recommendations from the workshop in the WG document being finalised. The Chairman may like to assign one of the members of the group to prepare an article (1500 words) on 'Non-Structural Adaptations to Flood Management' for ICID News¹.

WG-CAFM Agenda Item 5.2: WIF2 at Chiang Mai, Thailand in November 2016, Sub-theme 2 : Managing impacts of climatic extremes with focus on floods and droughts

12. During the Gwangju meeting, the PCTA did not agree to the proposal of the WG to organize an International Workshop on 'Floods and Agriculture' during 67th IEC and 2nd WIF in November 2016 at Chiang Mai, Thailand and instead suggested that members of the WG to take active part in the organization of the sub-theme 2: *Managing impacts of climatic extremes with focus on floods and droughts* activities of the 2nd WIF. The WG may deliberate on ways of active involvement of WG members in sub-theme 2 of WIF 2.

¹ Articles in ICID News are generally targeted at non-expert audience including policymakers.

WG-CAFM Agenda Item 6: Closure report and revised mandate of the WG

13. A note on summary of activities of the working group is at **Annex 2**. WG will prepare a closure report giving brief description of how objective and mandate of the WG have been achieved including conclusions, recommendations and way forward.

WG-CAFM Agenda Item 7: Any other business



NOTES FOR CHAIRPERSON:

1. Draft minutes of this meeting to be submitted to ICID Secretariat at Montpellier (France) after the meeting.
2. Chair to participate and present the WG report to PCTA meeting on 15 October 2015.

A. Members and their attendance at 2013 and 2014 Meetings

| Sl. No. | Members | Member from | 2013 | | 2014 | | Remarks |
|----------------------------|--|-------------|----------------|---------------------|------|---------------------|--|
| | | | Self | Contributed by mail | Self | Contributed by mail | |
| 1. | Dr. Kamran Emami (Iran), Chairman, 2010 | 1999 | • | | • | | |
| 2. | Prof. Dr.-Ing. Klaus Rottcher (Germany), Vice Chair (2012) | 2011 | • | | • | | |
| 3. | Dr. Takao Masumoto, Secretary (Japan) | 2009 | • | | • | | |
| 4. | Mr. Maurice Roos (USA) | 2006 | • | | • | | |
| 5. | Mr. Olli-Matti Verta (Finland) | 2011 | • | | • | | |
| 6. | Mr. Marcel Marchand (The Netherlands) | 2011 | | | | | Recommended for discontinuation |
| 7. | Dr. Arthon Suttigam (Thailand) | 2012 | • | | • | | |
| 8. | Ms. Aysen Pervin Gungor (Turkey) | 2012 | • | | • | | |
| 9. | Dr. Herman Booyesen (South Africa) | 2012 | # ² | | | | No contribution during 2014 |
| 10. | Mohd Adnan bin Mohd Nor (Malaysia) | 2013 | • | | • | | |
| 11. | Mr. R.K. Agarwal (Direct Member) Provisional Member | 2014 | | | | | Recommended for confirmation as Member Contributed by email as Provisional member |
| 12. | Dr. Rozalija Cvejic (Slovenia) Provisional Member | 2014 | | | | • | Recommended for confirmation as Member Contributed by email as Provisional member |
| 13. | Secretary General, ICID | | # | | # | | |
| Permanent Observers | | | | | | | |
| 1. | FAO representative | | | | | | |
| 2. | UNDRO representative | | | | | | |
| 3. | WMO representative | | # | | | | |
| 4. | World Bank representative | | | | | | |

B. New Nomination received from the National Committee

| Sl. No. | Name | Country | Remarks |
|---------|--------------|---------|--|
| 1. | Mr. V.D. Roy | India | Recommended as member, subject to his presence else provisional member |

² # Through representation

SUMMARY OF ACTIVITIES OF WG-CAFM (1999-2015)

1. International Executive Council (IEC) in its 36th meeting held at Vina del Mar, Chile (1985) approved setting up of a new Working Group on 'Non-Structural Aspects of Flood Control'. Prof. A. Volker (The Netherlands) was the Convener of the Group. The Group was renamed in 1999 as 'Working Group on Comprehensive Approaches to Flood Management (WG-CAFM)'. During Granada (Spain) meeting in 1999, the copies of the manual titled "Non-structural approaches to flood management" prepared by the Working Group and published by the ICID Central Office were distributed to the members.
2. Brief summary of activities of the WG from 2000 onwards is given below.
 - 2.1 **2000-2001** — During Cape Town (2000) meeting, WG discussed contributions received on selected flood control topics from its Members³ and decided to discuss the draft position papers during the Seoul meeting in September 2001. WG proposed to organize a workshop on 'Comprehensive Approaches to Flood Management' in Montpellier (France) in 2003. Chairman emphasized on better co-ordination with IAHR in respect of work on flood control. WG also noted a proposal of organizing 'International Seminar for propagating the non-structural approach to flood management in flood prone countries of Asia' by the Asian Regional Working Group of ICID.
 - 2.2 **2001-2002** — During Seoul (2001) meeting, Mr. L. Kungang (China) and Mr. Illahi B. Shaikh (Pakistan) were elected as members of the WG. Dr. Sang-il Lee (Korea) presented an overview of the flood problem in Korea during the meeting. Three draft position papers (i) Flood parameters v/s inundation; (ii) Flood parameters v/s damage; and (iii) Desired level of protection prepared by Dr. J. van Duivendijk, Chairman of the WG were discussed. WG planned a half-day Workshop of the WG titled "Comprehensive Approach to Flood Management" on 17 September 2013 at Montpellier (France) in 2003.
 - 2.3 **2002-2003** — During Montreal (2002) meeting, Prof. Josip Petras (Croatia), Mr. S. Sastrodihardjo (Indonesia), Dr. Bruce C. Moore (USA) and Prof. Josip Petras (Croatia) were accepted as member of the WG. The draft position papers on (i) Flood parameters vs. inundation; (ii) Flood parameters vs. damage; (iii) Desired level of protection; (iv) Mathematical modeling; and (v) Flood plain zoning prepared by the WG Chairman were discussed and it was decided to circulate these to all members as well as NCs of ICID for their comments (accessible through http://wg-cafm.icidonline.org/pos_pap_riverineflood.pdf).
 - 2.4 **2003-2004** — During the WG meeting held in 2003 at Montpellier, France, Mr. Dick De Bruin (The Netherlands) was accepted as a new Chairman of the WG-CAFM in place of Dr. van Duivendijk. While Mr. El Moujahid Ahmed (Morocco) was elected as member of the Group. Mr. R. Jeyaseelan (India) presented an overview of progress in India over the past 20 years in structural and non-structural approaches to managing floods. The Workshop on "Comprehensive Approaches to Flood Management" was held on 18 September 2003 where recent developments in various countries concerning flood control were discussed. The topics covered were damage assessment and control, use of mathematical modelling for understanding the flood/flooding phenomenon, degree of protection in relation to risk of flooding and, the constraints related to the introduction and practice of non-structural measures. Speakers from France, Morocco, Netherlands, South Africa and Hungary presented papers at the workshop. WG noted that the International Flood Network (IFNet), established during the 3rd World Water Forum intends to provide flood information via the World Wide Web which would be useful for WG-CAFM.
 - 2.5 **2004-2005** — During the Moscow (2004) meeting, presentations of country case studies on flood were made by four members (Mr. R. Jeyaseelan from India; Dr. Kamran Emami from Iran; Mr. A. Buber from Russia; and Mr. P. Borrows from UK). Mr. Jeyaseelan gave overview of several flash floods and problems of landslides in 2004 in the Himalayan foothill zones in India; Mr. Kamran Emami talked of extreme flood in 2001 in Iran (that was 125% of the calculated PMF and 8 times of the ever maximum) and its attenuation by recently constructed Golestan Dam; Mr. A. Buber highlighted the manner of disposal of floods in Volga Basin through multiple dams for meeting the multi objectives of water supply, navigation, fishery management as well as flood mitigation in Russia; and Mr. P. Borrows described the Catchment Flood Plain Management Plans in the catchment of the Thames. Discussion also covered some new topics such as use of remote sensing techniques in flood management etc.

³ Contributions received for India from Mr. R. Jeyaseelan and for Hungary from Dr. L. Szlavik (Hungary) titled 'The development of Flood Control in Hungary'

- 2.6 2005-2006** — During Beijing (2005) meeting, four presentations were made by the WG members on : (i) Forecast based reservoir flood operations by Mr. Maurice Roos (USA), (ii) Overview of flood problems in China over the past century, and new policies to harmonise coexistence between floods, droughts and the human population by Mr. Kun Gang Li (China), (iii) “Catastrophic urban flooding” by Mr. R. Jayaseelan (India), and (iv) Recent failures and overtopping of coffer-dams in Iran by Dr. K. Emami (Iran). ICID published a new Manual on “Planning of Structural Approaches to Flood Management” prepared by Dr. J. van Duivendijk (The Netherlands) in co-operation with the Working Group members which was launched and promoted at the 21st European Regional Conference held at Frankfurt (Germany) and Slubice (Poland) in May 2005.
- 2.7** A workshop on “Flood Management” was organized by the WG on 11 September 2005 at Beijing in which the following presentations were made: (i) keynote address and overview by the President Hon. Prof. B. Schultz (The Netherlands); (ii) flood control in California by Mr. M. Roos (USA); (iii) environmental maintenance measures for a large dam in Japan by Dr. T. Hata (Japan); (iv) developments by Delft in 1D/2D floodplain modeling Mr. Chen (representing Delft Hydraulics); (v) summary of the development and contents of the 1999 and 2005 manuals prepared by the WG by Dr. J. van Duivendijk (Netherlands); (vi) the construction and functioning of a 600 year old dam in Iran by Dr. K. Emami (Iran); (vii) dam related landslide and casualties in a remote area in Spain by Prof. J. Montanes (Spain); and (viii) review of risk, safety and insurance practices in urbanized areas in UK by Mr. P. Borrows (UK. WG submitted a paper on the theme “Risk Management” as the ICID contribution to the 4th World Water Forum held at Mexico in March 2006. Mr. Dick de Bruin, Chair of the WG in co-operation with Mr. P. Borrows (UK) prepared ICID document on ‘The Management of Riverine Flood Risk’ incorporating views/comments from Bangladesh, Indonesia, Iran, Japan, Pakistan, The Netherlands, Uzbekistan, UK and USA.
- 2.8 2006-2007** — During Kuala Lumpur (2006) meeting, Mr. Ahmet Seren (Turkey), Mr. Maurice Roos (USA) and Prof. Dr. Frank Steinman (Slovenia) were elected as members of the Working Group. Two presentations were made: (1) ‘Flash Floods and their Management in India’ by Mr. R. Jeyaseelan (India), and (2) ‘Hurricane Katrina’ by Maurice Roos (USA) during the meeting. A Special Issue of ICID Journal on ‘Integrated Flood Management’ (*Issue No. 55: Supplement 1*) was released in July 2006. WG paper titled “The Management of Riverine Flood Risk’ was proposed to be brought out as an ICID position paper on Flood Management which was circulated to all National Committees for their views before placing it in the 58th IEC as ICID’s position paper. The Working Group proposed to organize a half-day workshop on flood related aspects during the Sacramento (2007) meeting as a follow up on the “Special Issue: Integrated Flood Management” of ICID Journal and discuss some actual flood problems in countries like USA (aftermath Katrina), India, China and others. IRNCID organized a workshop on ‘Harmonic Coexistence with Floodwaters’ in August 2006 at Tehran, Iran covering various aspect such as flood risk management, educational aspects of floods, classification of the floods, drainage methods to deal with floods, flood zoning, application of GIS and integrated flood management. A book on ‘Flood Forecasting and Warning Systems’ was published during the workshop. The Chairman of the Working Group desired to step down during Sacramento (2007) meetings and suggested to elect a new Chairman.
- 2.9 2007-2008** — During Sacramento (2007) meeting, Dr. I.B. Shaikh (Pakistan) was accepted as new Chairman and Ir. Jos van Alphen (The Netherlands) and Mr. A.K. Ganju (India) were elected as new members of the WG. 58th IEC held at Sacramento, USA accepted paper on ‘The Management of Riverine Floods’ prepared Mr. P. Burrows (UK) and Dick de Bruin (The Netherlands) as ICID position paper on floods. The WG organized a half-day workshop on 03 October 2007 where seven presentations were made. WG also planned to organize a workshop on “Flood Management: Flood Monitoring and Early Warning” during Lahore meetings in October 2008.
- 2.10 2008-2009** — During Lahore (2008) meeting, Dr. Jianming Ma (China) was elected as member for WG-CAFM and Mr. Ahmed Kamal (Pakistan) was accepted as an Observer and assigned the duties of acting Secretary of the WG-CAFM until a new Secretary is elected. An International Workshop titled ‘Flood Management: Flood Monitoring and Early Warning’ was held on 15 October 2008 at Lahore covering following topics: (i) Flood plain management; (ii) Planning and design of river training works; (iii) Flood forecasting, monitoring and early warning systems; (iv) Management of floods in the wake of rapid melting of glaciers due to global warming; and (v) Structural and non-structural measures for the management of the flash flood. Chairman Dr. I.B. Shaikh and Mr. Kamal made presentations on Flash Floods/Flood Management. In all, 12 papers were presented and the workshop was attended by about 40 participants. WG decided to retain the present structure and name of the WG-CAFM, while agreeing to consider new issues like climate change, sea level rises, flash floods, adaptation strategy of people living in flood prone areas etc.

- 2.11 2009-2010** — During New Delhi (2009) meeting, Dr. Takao Masumoto (Japan) and Mr. G.S. Purba (India) were accepted as members of the WG. Dr. Kamran Emami (Iran) and Dr. T. Masumoto (Japan) elected as Vice-Chairman and Secretary of the WG-CAFM, respectively. Mr. G.S. Purba (India) presented a summary of current flood management arrangements and operations in India, and Dr. Emami presented a number of examples of flood management in Iran and other countries. Dr. Emami also made a presentation on 'Value Engineering' a valuable tool and having wide applications in the irrigation and drainage field in general. Agreeing to the concept of 'Value Engineering' in principle, the idea of establishing a new WG on 'Value Engineering' in Irrigation and Drainage was supported by the WG.
- 2.12 2010-2011** — During Yogyakarta (2010) meeting, Dr. Kamran Emami (Iran) elected as a new Chairman of WG-CAFM. VPH Engr. Dr. Illahi B. Shaikh suggested to include new emerging issues like climate change, sea level rises, flash floods, adaptation strategy of people living in flood prone areas etc. in the new mandate of the WG. It was observed that adaptive flood management strategies were needed for the people living in flood prone areas. Following presentations were made during meeting: (i) Devastating floods in Pakistan 2010 by VP Husnain Ahmad (Pakistan). He was requested to organize a workshop on the "Pakistan's Devastating Floods in 2010 - Lessons to be Learned" in Lahore, Pakistan in early 2011. (ii) current flood management arrangements and operations in Indonesia by Fransisca Mulyantari (Ministry of Public Works, Indonesia), and (iii) a case study on "Coordination of Feather-Yube river flood operations in California" by Mr. Maurice Roos (USA). WG proposed to organize a workshop on "Value Engineering: its applications in Irrigation and Drainage" during the next meeting of WG in October at Tehran, Iran in 2011. Dr. Emami also proposed to publish a booklet on "Application of Value Engineering in Irrigation and Drainage Projects" for circulation among the National Committees of ICID.
- 2.13** PH Peter Lee (UK) informed that a new international project to produce an International Levee Handbook (IHL) has commenced and presented its prospects and scope (accessible through <http://ciria.sharefile.com/d/scdb63d8ea674ed5b>). He invited contributions in the form of case study examples and information on particular aspects or national or regional best practices. USA, Turkey, Indonesia, Japan, The Netherlands, Iran, Pakistan, and Australia agreed to contribute.
- 2.14** An International Workshop on 'Floods in Pakistan in 2010 - Lessons Learned and Way Forward' was held at Lahore on 12 March 2011 as part of WG activities. The workshop made recommendations to Federal Government for improving flood management in Pakistan.
- 2.15 2011-2012** — During Tehran (2011) meeting, Dr.-Ing Klaus Rottcher (Germany), Mr. Olli-Matti Verta (Finland) and Mr. Marcel Marchand (The Netherlands) were accepted as new members of the WG. The Group shared the experiences from Japan in tackling the issues related to the Great East Japan Earthquakes and Tsunami in Japan (2011); floods in the State of California, where public Promotion activities for flood management have proved to be effective; and the new Iranian criteria for selection of design floods for large dams⁴. The Group decided to bring out a publication titled "Adaptive Flood Management" and organize an International Workshop titled "Adaptive Flood Management" on 25 June 2012 at Adelaide, Australia.
- 2.16 2012-2013** — During Adelaide (2012) meeting, Dr. Arthon Suttigarn (Turkey), Ms. Aysen Pervin Gungor (Turkey) and Dr. Herman Booyesen (South Africa) were accepted as members of the WG. Prof. Klaus Rottcher (Germany) was elected as the Vice Chairman of the WG. An International Workshop of the WG titled 'Adaptive Flood Management' was held on 25 June 2012 in which nine papers⁵ were presented. Vice Chairman Prof. Klaus Rottcher (Germany) presented a German case study titled 'Decentralized Measures as an important part of Flood Risk Management'. More than 31 delegates attended the workshop. The WG decided to publish a document titled 'Adaptive Flood Management' based on the workshop papers. The aim of the document was to facilitate the planners, managers and

⁴ Presentations were made by Mr. Maurice Roos (USA), Mr. J. Vatanfada (Iran) and Chairman Dr. Emami.

⁵ Nine papers were (i) 'The Great 2011 Thailand Flood: A Big Lesson Learned' by VP Chaiwat Prechawit (Thailand); (ii) 'Adaptive Flood Management' by Dr. Kamran Emami (Iran); (iii) 'Infrastructure of Irrigation, drainage and flood control accepted to climate change : Actions for Solution experienced in the Republic of Korea' by VP Tai Cheol-Kim (Korea); (iv) 'FloodSAFE, an Ambitious Program to Upgrade Flood Protection in the Central Valley of California' by Mr. Maurice Roos (USA) (v) 'Adaptive Flood Management in the Netherlands' by Dr. Marcel Marchand (The Netherlands); (vi) 'Adaptive Disaster Management Using Flood Prevention Functions of Paddies and Irrigation/Drainage Facilities in Monsson Asia' by Dr. Takao Masumoto (Japan); (vii) 'Mapping flood vulnerability of the agricultural sector in the Northern Cape Province, South Africa' by Dr. Herman Booyesen (South Africa); (viii) 'The Course of Flood Management Activities in Turkey' by Mr. Ahmet Seren (Turkey); and (ix) 'Lower Loddon Irrigators Recovery Package – Increasing the Resilience of Farming Communities on the floodplain' by Mr. Neil McBeath (Australia).

designers in setting up holistic, integrated and adaptive flood management schemes in view of uncertainties resulting from the climate and hydrological systems changes.

2.17 2013-2014 — During Mardin (2013) meeting, Mr. Ir. Mohd Adnan bin Mohd Nor (Malaysia) was accepted as member of the WG. Country presentations were made from Germany, USA, and Turkey on 'Floods 2013 in Germany', 'Impact of Hurricane Sandy on New York' and 'Upper Midwest Floods 2013 in USA and 'Flood Situation and Flood Management in Turkey' respectively. Mr. Giacomo Teruggi (WMO representative) introduced the Associated Programme on Flood Management that supports countries in the integrated management of floods, within the overall framework of Integrated Water Resources Management which reflected on the concept (adopted by the EU) of flood risk management.

2.18 2014-2015 — During Gwangju (2015) meeting, Mr. R.K. Agarwal (WAPCOS, Direct Member, India) and Dr. (Ms.) Rozalija Cvejic (Slovenia) were accepted the 'Provisional Members' of the group. Prof. Kim Seonjoon (Korea) made the country presentation on 'Recent floods in South Korea and some mitigating efforts'. The WG organized an internal workshop titled 'Adaptive Flood Risk Management' on 17 September 2014 and five presentations⁶ were made during the workshop. These presentations are available on the website (<http://wg-cafm.icidonline.org/>) of the working group.

3. The WG-CAFM decided to organize an International Workshop on 'Non-Structural Adaptations to Flood Management' on 12 October 2015 at Montpellier, France with following five sub-topics are: (i) Flood risk management as an adaptation tool; (ii) Flood mapping: program and techniques; (iii) Public awareness and participation in flood management activities; (iv) Flood emergency and response activities; and (v) Flood Insurance: Issues and challenges.



⁶ Five presentations were (i) 'Update on California Flood Management Accomplishments' by Dr. Michael Mierzwa (USA); (ii) 'Enlarge the Retention at Existing Dams for Paths and Streets' by Prof. Dr.-Ing Klaus Rottcher (Germany); (iii) 'Flood Risk Management, City of Salo' by M. Olli-Matti Verta (Finland); (iv) 'Flood warning system-FWS' by M. Olli-Matti Verta (Finland); and (iv) 'The Iranian Criteria for selection of design flood (Dam Criteria)' by Dr. Kamran Emami (Iran).

**AGENDA FOR THE 24TH MEETING OF THE
COMMITTEE ON PUBLIC RELATIONS AND PUBLICATIONS (C-PR&P)**

13 October 2015, 11.00-12.30 hours
Montpellier, France

Strategy Theme: Knowledge

Presented by the Chairman

Year of Establishment: 1992

Mandate: (i) To describe the economic, social and environmental aspects of water resources projects which help provide food and fibre to mankind through irrigation; to identify the audiences and their interests, and suggest the appropriate type of communication and who should carry it out; to encourage National Committees to adopt a proactive role in communicating the role of water resources projects in serving mankind; and to encourage the use of communications specialists to ensure that the ICID public relations effort is effective, (ii) General management tasks - Development of concept of ICID publication series; set procedure for approval of publications; identification of (inter) national publishers and setting up of cooperative arrangements; marketing and pricing; and cooperation with publishers and National Committees for sale of publications, (iii) Editorial management tasks - Monitoring of and liaison with authors and editors on proposed and approved manuscripts; classification of proposed manuscripts for the relevant ICID services; calculation of prices and costs; fixing number of copies of books; public relations for publications, recommendations on subsequent publications of ICID.

Website: <http://c-prp.icidonline.org/>

C-PR&P Agenda Item 1: Action taken report by Chair

1. The Chair may like to present a report on the actions taken on the decisions and proposals of the committee at its last meeting held at Gwangju, Korea.

C-PR&P Agenda Item 2: Membership of the Committee

2. In order to increase the efficiency and functioning of the workbody during the annual face to face meeting and avoid spending a lot of time on administrative matters, MB has decided that the admission of new members or discontinuation of the membership of the committee will be dealt by Chairman in consultation with Vice Chair, Secretary and ICID Central Office prior to the meeting itself through emails/ web conference.

3. No new nominations have been received this year. The existing membership of the Committee can be seen in **Annex 1** (see the electronic version for the latest list). Any new nominations for the membership received during the meeting will be dealt suitably after the meeting.

C-PR&P Agenda Item 3: Publications brought out and under processing during period 2014-15

C-PR&P Agenda Item 3.1: Periodicals

4. Fifty two issues of ICID e-Bulletin, 12 issues of News Update, and 4 issues of ICID News have been published by the Central Office during the year. All the past issues of these periodicals are available on ICID website (<http://www.icid.org/index.html>).

5. Annual Report: 2014-15 has also been brought out by the Central Office and has also been posted on ICID website. Two print (hard) copies of the annual report have been sent to all the National Committees along with one copy each to Office Bearers and International Organizations.

C-PR&P Agenda Item 3.2: Special Publications

6. During the year, Central Office has brought out the following publications viz. (a) Transactions of the 22nd International Congress on Irrigation and Drainage held during 14-20 September 2014 at Gwangju, Republic of Korea in 2 volumes. The theme of the Congress was – ‘*Securing Water for Food and Rural Community under Climate Change*’; (b) 9th N.D. Gulhati Memorial Lecture for International Cooperation in Irrigation and Drainage on “*Climate Variability and Change: Impacts on Water Availability*” by Jeremiah R.D. Lengoasa (WMO).

C-PR&P Agenda Item 3.3: Publications under processing

7. The following ICID publications are under processing:

- (i) 'Inter-Basin Water Transfer: Global Experiences – Analyses and recommendations' (by erstwhile TF- IBWT). Pres. Hon. Prof. Bart Schultz, Chairman of the erstwhile TF will provide further updates.
- (ii) "Water use charging systems and available financing of irrigation development: Country case studies" (by erstwhile TF-FIN). The technical report is being finalized by Central Office in consultation with Chair and most likely will be published in 2015.

C-PR&P Agenda Item 3.4: Publications by National Committees

8. Publications brought out by some National Committees as informed to the Central Office are shown in **Annex 2**. All NCs should be encouraged to inform about their publications to the Central Office and share them in electronic format so that they can be included in the Integrated Library Management System (ILMS) for wider dissemination. This is for information of the members and appealing all the NCs to make use of the ILMS to share their publications.

C-PR&P Agenda Item 4: Status of Sale of publications during the period 2014-15

9. During the financial year (1 April 2014 to 31 March 2015), in all 2 copies of special publications were sold, while 14 complimentary copies were distributed to NCs, workbody members and Office Bearers as shown in **Annex 3**.

C-PR&P Agenda Item 5: Report on ICID Journal

10. Five regular issues (63.1 to 63.5) were published in 2014. One Special Issue was published (Volume 63, Issue 2) with selected papers of the First World Irrigation Forum. This 'Special Issue' of the Journal can be accessed at: <http://onlinelibrary.wiley.com/doi/10.1002/ird.v63.2/issuetoc>.

11. At present four new Special Issues may be expected in the coming period. These concern: (a) Special Issue in the regular series with selected papers of the Gwangju (Korea) Congress (2014); (b) Sponsored Special Issue with selected papers, in principle based on Gwangju Congress papers by authors from Asia; (c) Sponsored Special Issue with selected papers in principle based on Gwangju Congress papers by Korean Specialists; (d) Sponsored Special Issue on New Developments on Irrigation in Africa.

12. In addition, two other sponsored Special Issue may be expected, one each in 2016 and 2017, they being: (i) Sponsored Special Issue by the Working Group on Sustainable Development of Tidal Areas (WG-SDTA) based on selected papers from the workshops of the Working Group in 2014 and 2015. The Special Issue is expected to be published in 2016; (ii) Sponsored Special Issue by the Iranian National Committee (IRNCID) will be based on selected papers of the 13th International Drainage Workshop to be held in 2017 in Iran.

13. Chairman/ EB-JOUR representative may apprise further developments.

C-PR&P Agenda Item 6: Updating Multilingual Technical Dictionary (MTD)

14. At the 65th IEC meeting, it was decided that ICID Central Office brings out an online version of the MTD and make it available through ICID website. Accordingly, Central Office (CO) has brought out an online version and uploaded the same on website <http://www.icid.org/members_only/icidmtd>. The present online version is based on the 5th CD-ROM edition released in the year 2010, which consisted of 25 chapters and 9370 terms. In the new edition, additional three more languages i.e. Chinese, Japanese and Russian, have been included, as received from the National Committees. As most of the translations received from the NCs were based on the previous editions, term-to-term translation could not be made. To enrich this online resource, CO has approached Chinese, Korean, Egyptian, Indonesian, Indian, Japanese, and Russian National Committees with a standard data template along with a priority list of chapters. The purpose of prioritizing the chapters is to keep the focus on irrigation and drainage terms. A note on the way forward to developing and updating the present terms is being submitted to PCTA.

15. An agenda item on the subject has been included in each of the relevant WGs for feedback as to how they plan to review / update the terms that fall within their respective scope of activities. WGs are expected to discuss the issue and provide their input to PCTA.

16. Central Office has launched the initial version of the Multilingual Technical Dictionary (MTD) on the ICID website for online searching <http://www.icid.org/members_only/icidmtd>. As a privileged registered ICID member, one can see the Chapter-wise listing using their 'Members only' login details.

17. Committee may discuss the issue and provide their suggestions for the consideration of PCTA.

C-PR&P Agenda Item 7: Review of ICID website

18. Central Office has requested National Committees of Bangladesh, China, Egypt, India, Iran, Italy, Korea, Pakistan, South Africa, Sri Lanka, Turkey, and Zimbabwe to contribute to the newly introduced Integrated Library Management System – ILMS platform, which can serve as 'One-Stop Knowledge Catalogue' for all Irrigation and Drainage related literature.

19. **ICID You Tube channel** <http://www.youtube.com/icidonline> has been updated with all the videos and **SlideShare** (presentations) from 22nd ICID Congress in Korea All the Congress events have also been projected through the ICID **Facebook** page <<http://www.facebook.com/icidat>>. Members are requested to actively participate in the ICID Media to help disseminate the knowledge globally.

20. As discussed during the Gwangju (Korea) meeting, CO has made an attempt to design an 'Irrigation and Drainage – Products & Services Directory' with an objective to help various stakeholders in locating required business information through a few clicks for decision making. The directory enlists all the services and products being provided by consultants, manufacturing companies, dealers, and other professional institutions. This online service is totally FREE of cost and can be availed of by any service provider by submitting the required information online. The information is presently listed in four categories and further sub-categories: **[A] Consultancy Services** (1. Individuals/ Experts/ Freelancer; 2. Organizations); **[B] Companies / Manufacturers / Dealers** (1. Company/ Implementing Agency; 2. Dealer/ Distributor / Contractor; 3. Manufacturer; 4. Publisher; 5. Software developers/ vendors); **[C] Institutions** (1. Academic Institutions; 2. Farmer's Associations; 3. Funding Agencies; 4. Non-Governmental Organizations (NGO)/ Not for Profit Organizations; 5. Research Institutions; 6. Training Institutions); and **[D] Others**.

21. Members are requested to widely circulate the link and help us in building a useful database for international community. This service can be accessed from: <http://www.icid.org/ypsearch.php>.

C-PR&P Agenda Item 8: Exchange of information (video/audio conferencing)

22. In the era of information technology, virtual meetings/ Video conferencing are great ways to communicate and keep in contact. During the 65th IEC meeting, it was decided that the Working Groups should organize a WebEx meeting or video-conference in between two face to face IEC meetings in order to enable the Group to take a view of the progress made on their activities and at the same time allow contribution from those members who could not attend the meetings.

23. ICID Central Office requested the Chairs, Vice-Chairs and Secretaries of the Workbodies in December 2014 to make use of this facility for online meetings. Accordingly, WebEx meetings/ Video-Conferences were organised by the Working Group on Environment (WG-ENV) on 19 March and 10 September 2015; Working Group on Water Management in Water Stressed Regions (WG-DROUGHT) on 18 February 2015; and European Regional Working Group (ERWG) on 30 January 2015. In addition to the workbody meetings, two Management Board meetings, and two Consultative Group (CG) meetings to develop 'ICID Vision 2030' were organized.

24. This is for information of the members.

C-PR&P Agenda Item 9: Any other business

25. Members may revisit the mandate as part of it appears to be not relevant anymore.



NOTES FOR CHAIRPERSON:

1. Draft minutes of this meeting to be submitted to ICID Secretariat at Montpellier (France) after the meeting.
2. Chair to participate and present the WG report to PCTA meeting on 15 October 2015.

Annex 1 [Appendix XXII, Item 2]

A. Members and their Attendance at 2013 and 2014 Meetings

| Sl. No. | Members | Member from | 2013 | | 2014 | | Remarks |
|--------------------------|--|-------------|----------------|---------------------|------|---------------------|--|
| | | | Self | Contributed by mail | Self | Contributed by mail | |
| 1. | VPH Larry D. Stephens, Chairman (USA) | 1992 | • | | • | | |
| 2. | PH Bart Schultz (The Netherlands) | 2009 | • | | • | | |
| 3. | Ms. Anne Currey (Australia) | 1998 | | | | | Contributed an article for ICID News in 2015 |
| 4. | Dr. Yingduo Yu (China) | 2012 | • | | • | | |
| 5. | Mr. C.P. Arora – Direct Member, WAPCOS (India) | 2014 | | | • | | Contributed to Annual Report, 2014-15 |
| 6. | Secretary General, ICID | | # ¹ | | # | | |
| Ex-officio Member | | | | | | | |
| | Mr. Satit Maneepai (Thailand) | | | | | | |



Annex 2 [Appendix XII, Item 3.4]

PUBLICATIONS BY NATIONAL COMMITTEES

1. INACID, Indonesia

- (a) Abstract Volume of Proceedings –National Seminar on the ‘*Securing Water for Food and Rural Community under Climate Change*’ at Semarang during 29-30 November 2013 (CD-ROM), Indonesian National Committee of ICID (INACID).

2. KCID, Korea

- (a) KCID Magazine, Korean National Committee on Irrigation and Drainage (KCID), 2014, No.53, No.3
 (b) KCID Magazine, Korean National Committee on Irrigation and Drainage (KCID), 2013, Nos. 51 and 52
 (c) KCID Journal, Korean National Committee on Irrigation and Drainage (KCID), 2013, Vol. 20, No. 1

3. IWF-ICID.UK, UK

- (a) News & Views, June 2014, No.56

4. USCID, USA

- (a) USCID Newsletter, 2014, No.116



1 # Through representation

SALE OF ICID PUBLICATIONS IN 2013-14 AND PREVIOUS YEARS

| Sl. No. | Publications | Year of publishing | Copies printed | Upto 31.03.2014 | | 01.04.2014 to 31.03.2015 | | Balance as on 31.03.15 |
|---------|--|--------------------|----------------|--|------|---|------|------------------------|
| | | | | Free copies to NCs/ Members/ ICID events | Sale | Free copies to NCs/ WB Members/ ICID events | Sale | |
| 1. | Climate Change Adaptation for Irrigation and Drainage in Asia | 2012 | 400 | 339 | 1 | 1 | 1 | 58 |
| 2. | Towards sustainable development of tidal areas – Principles and experiences | 2011 | 500 | 146 | 24 | 1 | - | 329 |
| 3. | CD-ROM version of Multilingual Technical Dictionary (MTD) | 2010 | 500 | 94 | 26 | 1 | - | 379 |
| 4. | Water saving in agriculture | 2008 | 500 | 204 | 86 | 1 | - | 209 |
| 5. | Manual for performance evaluation of sprinkler and drip irrigation systems in different agro-climatic regions of the world | 2008 | 500 | 149 | 75 | 2 | - | 274 |
| 6. | Micro irrigation in arid and semi-arid regions | 2006 | 500 | 159 | 87 | 1 | - | 253 |
| 7. | Planning and designing of micro-irrigation in humid regions | 2005 | 500 | 119 | 124 | 1 | - | 256 |
| 8. | Manual on planning of structural approaches to flood management | 2005 | 500 | 105 | 59 | 1 | - | 335 |
| 9. | Application of geo-synthetics in irrigation and drainage projects | 2004 | 500 | 132 | 157 | 1 | - | 210 |
| 10. | The Indus basin – History of irrigation, drainage and flood management | 2004 | 500 | 148 | 56 | 2 | - | 294 |
| 11. | Danube Valley – History of irrigation, drainage and flood control | 2004 | 392 | 148 | 27 | 1 | 1 | 215 |
| 12. | Historical Dams | 2001 | 600 | 177 | 170 | 1 | - | 252 |
| | Total | | | | | 14 | 2 | |



**AGENDA FOR THE INFORMAL MEETING OF
WORKING GROUP ON WATER SAVING IN IRRIGATED AREAS (WG-WATS)**

13 October 2015, 14.00-15.30 hours
Montpellier, France

Strategy Theme: Schemes

A. Scoping Document of new Working Group

1. The Working Group on Water Saving for Agriculture was concluded at Mardin meeting in 2013 after completion of its mandate. Accordingly, the 65th International Executive Council (IEC) held at Gwangju in September 2014 had decided to establish a new Working Group under the Strategy Theme “Schemes”. The Core Group¹ developed the Scoping Document (**Annex**) for the new Working Group and recommended that the new working group may be called “Working Group on Water Saving in Irrigated Areas (WG-WATS)”. As per the Scoping Document, scope of activities of the WG is proposed are as follows:

- (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.

B. Membership for new WG

2. The Scoping Document for the new Working Group on Water Saving in Irrigated Areas (WG-WATS) has been circulated to all the National Committees in July 2015 for inviting experts to participate in the Working Group.

3. Following nominations are received from the National Committees for the membership of the new WG-WATS:

- (a) Eng. S. Mohanarajah (Sri Lanka)
- (b) Dr. Hassan Aboalbasher Ali (Sudan)

SUPP.:

- (c) Mr. Mehrzad Ehsani (Iran)
- (d) Prof. (Ms.) Kyung-Sook Choi (Korea, Rep. of)

As per ICID By-Laws 3.5, Direct Members shall be the members of not more than three (3) work bodies. Jain Irrigation Systems Limited (JISL) has recently joined ICID as Direct Member and has nominated following for the membership of the group (CVs are yet to be received):

- (a) Dr. P. Soman,
- (b) Mr. S.P. Jadhav and
- (c) Mr. Abijit Joshi.

4. The experts attending this informal meeting will chose a chair for the group and refine the scope of the WG. The consensus scope would be presented by the representative/elected chair of the group to PCTA in its meeting on 15 October 2015 for approval by the IEC.



¹ Core consist of Mr. Mehrzad Ehsani (Iran), Mr. Thierry Facon (FAO), Mr. John Replogle (USA), and Dr. Nico Benede (South Africa)

WORKING GROUP ON WATER SAVING IN IRRIGATED AREAS (WG-WATS)

DRAFT SCOPING DOCUMENT

1. Introduction

- 1.1 Today, agriculture consumes 70 percent of all global water withdrawn for consumptive use, up to 95 percent in several arid and semi-arid countries. In fact, irrigated agriculture has played a major role in the development of rural economies, supporting economic growth and poverty reduction. The irrigation water, passing from its source to the field and then finally consumed by crops, has been through many links, including water resources allocation, conveyance, distribution, irrigation, soil evaporation and plant transpiration, etc. So, corresponding measures should be taken at each of these links. In order to reflect the essence of water-saving irrigation in a comprehensive and objective way and make the issue less complicated, the irrigation water consumption, irrigation water using efficiency, and engineering and technical requirements, etc. have been selected as the key criteria on water saving in irrigated land.
- 1.2 There is a vast range of techniques and technologies available for minimizing water losses and maximizing water saving in agriculture and efficient use of irrigation water, ranging from simple tubes for field water application to sophisticated canal automation and telemetry. Water saving practices in irrigated agriculture can be categorized as engineering, management, technology, technique, policies and institutional. The success of these parameters depends on the level of their integration and socio-economic dimensions of a given locality. The modern irrigation knows how to use less water to produce more agriculture products.

2. Objectives

1.1 *Relevance of the Working Group:*

1.1.1 *The relevance of the WG can be specified as follows:*

- (a) the topic of water saving in irrigated area is relevant to the vision and mission of ICID and of interest for its members, in all countries with a high, medium and low Human Development Index;
- (b) the WG is expected to contribute to effective implementation of the Strategy Theme Schemes and to other strategy themes for that matter;
- (c) Water saving in irrigation is critical for many regions of the World, especially in the arid and semi-arid zones;
- (d) Fresh water is limited, therefore needs more control on water withdrawal and usage in order to be able to meet water and food security;
- (e) "WatSave Award" is specific brand of ICID since 1997 in the International level. Therefore new WG needs to revisit the criteria and measure for nominees and applications.

1.2 *Relevance of the Working Group to the scope of the Thematic Area*

- 1.2.1 For the relevance of the WG to the scope of the Thematic Area the same argumentation is applicable as shown under the relevance. One of key objective for huge investment in irrigation infrastructure in the world is controlling water losses and saving fresh and limited water through water conveyance, distribution and application in order to meet food security.

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

- 1.3.1 Two ICID active working groups (WG On-Farm and WG-Crop) which relatively closed to the mandate of proposed working group are focused on water productivity, crop requirement as well as efficient application of water at the field level, and there is a gap in dealing with prevents water losses from resources to the field, and how to save water in the farm, as well as there is a gap in aspect of approaches to technology, technique, policies and institutional to water saving from lowest level in the farm to the upper level to the field, basin, and national program. None of the WGs are presently mandated to study the issues related to agricultural water saving from resources to the field, and from region to national level.

3. State of knowledge on the topic

3.1 Other International Organisations that are working on the subject

3.1.1 There are several other International Organisations that have programs and activities on this topic. This especially concerns the:

- (a) Food and Agriculture Organisation of the United Nations (FAO);
- (b) International Water Management Institute (IWMI) ;
- (c) International Fund for Agricultural Development (IFAD);
- (d) International Rice Research Institute (IRRI);
- (e) International Livestock Research Institute (ILRI),
- (f) professional international water associations, like: IAH, IAHR, ICOLD, IHA, IWA, IWRA, as well as national ones not incorporated within ICID;
- (g) Institutes for international education: UNESCO-IHE...

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

3.2.1 The specific niche that this WG can fill on the issue bulleted under “Scope” can be formulated as follows:

- (a) to exchange information and network on the issues in order to be up to date with new developments, methods and approaches;
- (b) to review and prepare a condensed overview of existing key books, manuals, guidelines and other relevant publications on the issues;
- (c) to prepare and present reports and/or case studies on recent development in the countries that are represented in the WG;
- (d) to collect and review manuals, guidelines and standards on sustainable water management in irrigation in the countries that are represented in the WG;
- (e) to consult with ICID Central Office on the continuation of data collection with respect to developments in irrigation methods in the Member Countries (MC);
- (f) to organise international workshops, seminars or symposia on the issue;

3.2.2 This can be the basis to present recommendations and if mature a position paper on key issues on developing irrigation and sustainable water management, and in fine to prepare an overview paper on the state of the art on the topic for publication in *Irrigation and Drainage (IRD)*.

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

3.3.1 International Organisations can contribute to the activities of the WG by nominating Permanent Observers (PO). On the other hand presentations of the work and achievements of the WG can be presented at the occasion of events organized by International Organisations.

4. Work Plan

4.1 A tentative Work Plan is proposed by core group, which of course has to be enriched by the WG itself during the first step of its work.

- (a) To recognize methods and techniques for water saving in Agriculture;
- (b) Experiences on application of technologies and innovations to save water;
- (c) Identifying management, planning and best practices on water saving;
- (d) Water accounting and irrigation auditing at various levels (scheme and/or system);
- (e) National policies and strategies to support water saving and prevent water losses;
- (f) Identifying and promoting successful water saving tools and processes;
- (g) The role of water authorities and institution for water saving;
- (h) success stories,

4.2 Scope

4.2.1 The WG is expected to investigate, analyse, and disseminate information on new developments and to formulate recommendations with respect to:

- (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 apply in irrigation water saving;
- (i) outreach of water saving technologies;
- (j) WatSave Awards.

4.3 Target audience

4.3.1 The target audience for this working group will be managers of irrigation systems, consultants, researchers, government agents, farmers' organizations, manufacturers and staff of International Organisations working on the topic.

4.4 Outputs

4.4.1 The following outputs can be expected from this WG:

- (a) although it is an indirect output sharing of knowledge and experience by representatives of NCs will also enable them to disseminate this knowledge within their country;
- (b) guidelines on sustainable water management in irrigation;
- (c) condensed overview of existing key books, manuals, guidelines and other relevant publications on the topic;
- (d) the WG is expected to organise at least one workshop, seminar or symposium in three years at occasion of an international ICID meeting;
- (e) overview paper on the state of the art on the topic for publication in *Irrigation and Drainage (IRD)*

4.5 Timelines

4.5.1 While irrigation development and water management in irrigation are very important issues in light of its role in support of global food production it is recommended that the initial term of this WG will be set at six years. The timeline would have to be based on the scope of work and the expected output. Details of the timeline would have to be formulated and refined during the inaugural meeting of the WG.

4.6 Collaborators and dissemination strategy

4.6.1 The WG would have to base its activities on an open attitude with a clear scope for invitation of outsiders that are interested in the topic on a PO, or ad hoc basis.

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

5. Core Group

5.1 This draft is prepared and proposed by core group. The Core Group consists of:

- (a) Mr. Mehrzad Ehsani (ehsani2@gmail.com)
- (b) Mr. Thierry Facon (Thierry.Facon@fao.org)
- (c) Mr. John Replogle (John.Replogle@ars.usda.gov)
- (d) Dr. Nico Benade (nico@nbsystems.co.za)

**DETAILS OF WORK PLAN FOR
WORKING GROUP ON WATER SAVING IN IRRIGATED AREAS**

1. According to the tentative working plan that proposed by core group, WG may needs more clarification on objectives and work plan topic in order to be used as guideline and discussion materials during the meetings. Concept note and details of objectives are as follows:
2. Approaches to water saving in irrigated agriculture may be categorized as management, technology, technique and policies. The success of these approaches depends on the level of their integration and socio-economic dimensions of a given locality. WG would identify the various tools and procedure which apply by countries in order to save water or control water losses. Documentation of successful stories and collect experiences all around world would be one of the main responsibilities of WG.
3. **Policy and legal approaches to Water Saving:** WG would identify law and regulation applied by various countries to prevent water loss and encourage water savings in agriculture. It should also determine the role of water fee and charging to smart motivation on water saving. Appropriate national guidelines and regulations for water saving need to be developed and implemented. According to the strategy run in most of countries, irrigation infrastructure investment is mostly funded by the public sector. Increasing investment and involvement of private sector is crucial for up-scaling of irrigation technologies.
4. **Technology Approaches to Water Saving:** There is a vast range of technologies available for improved operation, better management and efficient use of irrigation water in schemes levels. Reducing water losses on distribution networks such as irrigation schemes, is a low cost target that can be achieved over a relative short period, compared to construction of a new storage capacity to increase water supply. This type of effective water saving is mainly dependent on innovative management and application of innovative technologies. Priority should therefore be given to training of managers to support adoption of available technologies, in particular measurement and metering of water use on irrigation schemes and information systems for canal water management.
5. **Techniques Approaches to Water Saving:** Agricultural water saving techniques, know how to use less water for the specific plantation, how to reuse some of the water and to recycle them. The main idea is to use the minimum amount of water needed and to optimize the usage. A systematic approach to water saving in agricultural requires actions at all levels, from farms to irrigation schemes, and from local to national action and strategies, as well as, from innovation to developing techniques and technologies needs to cope with irrigated water losses and water saving. WG should identify traditional and modern methods for water saving within member countries. Collecting experiences and knowledge on methods and techniques which normally apply for better management of irrigation water would be considered in the WG agenda.
6. **Water Accounting and Irrigation Auditing:** Water saving measures need to be based on a thorough understanding of water balance and linkages between surface and groundwater and beneficial and non-beneficial uses of water. Water accounting use is a key step in managing irrigation water use. Producers may choose from several technologies, methods, and calculations to assist them with this practice.
7. By auditing any irrigation system on a regular basis, producers can monitor the water use trend over a period of time. Irrigation audit provides critical information about an irrigation system's efficiency; it can be used to detect problem areas before they become endemic to the whole system.
8. **Best Practices and Successful Story on Water Saving:** There are many successful practices, and research findings potent works and non-conventional pathways of achieving water saving in irrigation. A few of them are rated as outstanding contributions in water savings/ conservation across the world. There is urgent need to explore all those innovations and success story and share with stakeholders i.e. irrigation managers and policy makers. There is also need to strengthen the process of transfer and dissemination of water saving management skills from professional experts in the governments and international organizations to the farmers.



APPENDIX XIV [PCTA Item 5.2]

**AGENDA FOR THE 5TH TH MEETING OF THE
WORKING GROUP ON SUSTAINABLE DEVELOPMENT OF TIDAL AREAS (WG-SDTA)**

13 October 2015: 14:00-15:30 hours

Montpellier, France

Strategy Theme: Basin

Presented by the Chairman

Year of Establishment: 2011

Completion of the Mandate: 2016

Mandate: (i) Identify sustainable management options of lowland, watershed, as well as sustainable development and management of water and land resources in tidal areas; (ii) To raise awareness of the increasing risk on tidal areas due to global climate change, stimulate discussion on impacts and mitigation, and find a balance between the preservation and development of tidal areas; (iii) 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; (iv) To review the progression of natural wetland conservation and constructed wetland development in tidal areas; (v) To join the international dialogue and organize international conferences to promote land and water management in tidal areas as well as evaluate the feasibility of tidal energy exploitation under global climate change; and (vi) To collaborate with other related working groups actively, and to exchange relevant experiences amongst NCs and support for developing, and least developed countries.

Website: <http://wg-sdta.icidonline.org>

WG-SDTA Agenda Item 1: Action Taken Report by Chair

1. The Chairman may like to present a report regarding various actions taken on the decisions made during the last meeting of the WG at Gwangju, Korea (2014).

WG-SDTA Agenda Item 2: Review of the membership of the Working Group

2. In order to increase the efficiency and functioning of the Working Group during annual face to face meeting and avoid spending a lot of time on administrative matters, MB has decided that the admission of new members or discontinuation of the membership of the group will be dealt by Chairman in consultation with Vice Chair, Secretary and ICID Central Office prior to the meeting itself through emails/ web conferencing.

3. No new nominations have been received this year. The existing membership of the WG can be seen in **Annex 1** (see the electronic version for the latest list). Any new nominations for the membership received during the meeting will be dealt suitably after the meeting.

WG-SDTA Agenda Item 3: Internal Workshop on Environmental Hazards in Tidal Areas at Montpellier, France

4. This year, the Working Group on Sustainable Development of Tidal Areas (WG-SDTA) is planning to organize an Internal Workshop during 26th ERC and 66th IEC meetings on 13 October 2015 (16:00-17:30 hours). The main theme of the workshop is '*Environmental Hazards in Tidal Areas*' and other sub-topics are: (a) Sea level rise, storm surge, tsunami, land subsidence, food, saltwater intrusion and so on; (b) Hazards/Risk/Ecosystem management in tidal area: monitoring, forecasting, mitigation, economic impact, vulnerability and strategies assessment; (c) Stakeholder involvement and integrated management on environmental hazards in tidal area. All the members are requested to attend and actively participate in the workshop.

The Chairman may apprise the WG members.

WG-SDTA Agenda Item 4: Organizing a Short Course on SDTA in 2015 at Taiwan

5. During the Gwangju (2014) meeting, it was decided that the group would organize an International Short Course on SDTA at Taiwan after the 66th IEC meeting of ICID in October 2015. The title of the International Short Course is '*Resilience and Adaptations to Climate Change for Sustainable Management of Tidal Areas*'. The Short Course will emphasize on four topics: (a) Special characteristics of land and water management in tidal areas; (b) Impacts of climate change on land and water management in tidal area; (c) Risk assessment and adaptive management considering climate change; and (d) International experiences of adaptations in SDTA to climate change. The draft announcement for the short course is available at **Annex 2**.

6. Accordingly, the members may discuss:

- (a) Date: The short course is proposed to be held in spring, 2016 due to the administrative procedures involved in securing grants and consideration of the climate.
- (b) Criteria for sponsoring participants: In order to invite nominations for participation in prescribed format, the WG needs to develop the criteria for selection of participants. The number of participants is proposed to be less than 20 due to the limitation of grants.
- (c) Instructors: There will be 2-3 days of lectures and 2-3 days of field trip/technical tours and practical activities during the short course. The field trip/technical tours will be organized by Prof. Ruey-Chy Kao and Hsiao-We Wang (Taiwan) and lectures will be delivered by invited faculty/speakers.

WG-SDTA Agenda Item 5: Publications of the Working Group

WG-SDTA Agenda Item 5.1: A Special Issue of ICID Journal on SDTA in 2016

7. At Gwangju (2014) meeting, the WG decided to publish a Special Issue of ICID Journal on SDTA in 2016. The special issue will contain select papers from the internal (2013), and international (2014, 2015) workshops. The Chairman and Vice-Chairman have established the 'Review Committee' for reviewing and selecting papers for the Special Issue. Guest Editors for the Special Issue will be appointed by the Chief Editor of the ICID Journal in due course of time.

8. Considering the need of US\$ 15,000 from M/s Wiley-Blackwell (UK), the publisher of ICID Journal, to publish a sponsored issue of the Journal, ICID Central Office requested National Committees for generous donations for this special Issue of the Journal. In response, the Japanese National Committee of ICID (JNC-ICID), Korean National Committee of ICID (KCID) and the Chinese National Committee of ICID (CNCID) have committed US\$ 5000 each for such an academic cause. This is for the information of members.

SUPP: Dr. Ruey-Chy Kao and Ir. Henk Rizema, Chairman and Vice-Chairman of WG-SDTA, respectively, have proposed members for the Review Committee for selecting papers for the Special Issue of ICID Journal on SDTA in 2016 as:

- **Ir. Henk P. Ritzema (The Netherlands) - Chair of the Review Committee**
- **Dr. Hajime Tanji (Japan)**
- **Dr. Hsiano-Weng Wang (Taiwan)**
- **Dr. Jeongryeol Jan (Korea)**
- **Ir. Hj. Nor Hisham bin Mohd Ghazali (Malaysia)**

This is for consideration during the meeting of WG-SDTA at Montpellier, France.

WG-SDTA Agenda Item 6: Updating Multilingual Technical Dictionary (MTD)

9. At the 65th IEC, it was decided that ICID Central Office bring out an online version of the MTD and make it available through ICID website. In this connection, Central Office is collecting the terms available with different NC in their respective languages, based on 2010 version of MTD. PCTA would be discussing the issue of revision of the MTD, pruning down the chapters and concentrating on the chapters that are within the expert purview of ICID. **[Refer Agenda Item 4 of PCTA]**

10. PCTA would require a feedback from each of the WGs as to how they plan to review / update the terms that fall within their respective scope of activities. WGs may discuss this issue and provide the required input to PCTA. To achieve this goal, it is proposed to undertake the concerned terms by the respective Working

Group depending on their domain of expertise suggesting changes / modification and addition of new terms, contributing pictures, links and videos related to respective term.

The WG to discuss as above and report to PCTA.

WG-SDTA Agenda Item 7: Any other business



NOTES FOR CHAIRPERSON:

1. Draft minutes of this meeting to be submitted to ICID Secretariat at Montpellier (France) after the meeting.
2. Chair to participate and present the WG report to PCTA meeting on 15 October 2015.

Attendance of members in 2013 and 2014

| Sl. No. | Members | Member From | 2013 | | 2014 | | Remarks |
|--|--|-------------|------|---------------------|----------------|---------------------|---------------------|
| | | | Self | Contributed by mail | Self | Contributed by mail | |
| 1. | Dr. Ruey-Chy Kao Chairman (2011) (Chinese Taipei) | 2007 | • | | • | | |
| 2. | Ir. Henk P. Ritzema, Vice-Chairman (2009) (The Netherlands) | 2002 | • | | - | | Contributed in 2015 |
| 3. | Dr. Hajime Tanji, Secretary (Japan) | 2013 | • | | • | | |
| 4. | Dr. (Ms) Hsiao-Weng Wang, (Chinese Taipei) as Young Professional | 2010 | • | | # ¹ | | |
| 5. | Prof. Budi Santoso Wignyosukarto (Indonesia) | 2011 | • | | • | | |
| 6. | Dr. Jeongryeol Jang (Korea) | 2014 | | | • | | |
| 7. | Prof. Zhang Zhanyu (China) | 2012 | | | • | | |
| 8. | Ir. Hj. Nor Hisham bin Mohd Ghazali (Malaysia) | 2012 | • | | • | | |
| 9. | Secretary General, ICID | | # | | # | | |
| Permanent Observers / Observers | | | | | | | |
| 1. | Dr. Jo Jin Hoon (Korea) | | | | | | |
| 2. | Dr. Daeou Eo (Korea) | | | | | | |
| 3. | Mr. Robiyanto Hendro Sustano (Indonesia) | | | | | | |
| 4. | Mr. Harry Denecke (FAO) | | | | | | |

¹ # Through Representation

**INTERNATIONAL SHORT COURSE ON
RESILIENCE AND ADAPTATIONS TO CLIMATE CHANGE FOR
SUSTAINABLE MANAGEMENT OF TIDAL AREAS**

Scope

Tidal areas, with abundant ecosystems, are important interactive water-land environments. Due to the global climate change, tidal areas are threatened by rising sea levels, extreme flood and drought events, and so on. There is a pressing need to accelerate efforts for resilience and adaptation to climate change. Through learning processes and experiences sharing, feasible strategies of sustainable management of tidal area resources can be derived.

The International Short Course is organized by ICID's Working Group on Sustainable Development of Tidal Areas (WG-SDTA). The course is intended for resources managers, practitioners, researchers, and others who are familiar with the relevant issues in tidal area and wish to understand and apply the experiences to cope with climate change. Young professionals with at least five years of experience in the subject area are encouraged to participate. The course balances advance reading, lecture, fieldwork, and exercises. Participants will come play with a working knowledge based on international experiences and an understanding of the theory and tools for further applications.

Topics include

1. Special characteristics of land and water management in tidal areas
2. Impacts of climate change on land and water management in tidal area
3. Risk assessment and adaptive management considering climate change
4. International experiences of adaptations to climate change

Venue: Taiwan

Date: After Montpellier IEC meeting

Participants: Less than 20 people

Principal Instructors: Prof. Henk Ritzema (The Netherlands) and Prof. Hsiao-Wen Wang (Taiwan)

Contact co-ordinates: Prof. Ruey-Chy Kao (Chinese Taipei), **Workshop Chair**, E-mail: SDTA-THL@thl.ncku.edu.tw and Dr. Vijay K. Labhsetwar (ICID Central Office, New Delhi), **Workshop Coordinator**, E-mail: icid@icid.org



**AGENDA FOR THE 18TH MEETING OF THE
WORKING GROUP ON ON-FARM IRRIGATION SYSTEMS (WG-ON-FARM)**

13 October 2015, 16.00-17.30 hours

Montpellier, France

Strategy Theme: On-Farm

Presented by the Chairman

Year of Establishment: 1998

Completion of the Mandate: 2015

Mandate: (i) To promote on-farm irrigation as part of integrated water resources management, and (ii) To promote sustainable efficient approaches for on-farm irrigation.

Website: <http://wg-on-farm.icidonline.org/>

WG-ON-FARM Agenda Item 1: Action taken report by Chair

1. The Chair may like to present a report on the actions taken on the decisions and proposals of the working group at its last meeting held at Gwangju.

WG-ON-FARM Agenda Item 2: Review of the membership of the working group

2. In order to increase the efficiency and functioning of the Working Group during annual face to face meeting and avoid spending a lot of time on administrative matters, MB has decided that the admission of new members or discontinuation of the membership of the group will be dealt by Chairman in consultation with Vice Chair, Secretary and ICID Central Office prior to the meeting itself through emails/ web conference. Accordingly, the updated membership of the WG based on the nominations received so far is at **Annex 1** (see *the electronic version for the latest list*). Any new nominations for the membership received during the meeting will be dealt suitably after the meeting.

3. The Japanese National Committee (JNCID) has nominated Dr. Akira Iwamoto (*existing member*) for the membership of the new WG. Nominations of Mr. Bashu Dev Lohanee (Nepal) and Mr. Muhammad Tahir Anwar (Pakistan) have also been received for the membership of the new WG. Iranian National Committee (IRNCID) has nominated Dr. Hossein Dehghani Sanij (Iran) for the membership of the group.

SUPP.:

As per ICID By-Laws 3.5, Direct Members shall be the members of not more than three (3) work bodies. Jain Irrigation Systems Limited (JISL) has recently joined ICID as Direct Member and has nominated following for the membership of the group (CVs are yet to be received):

- (a) Mr. M.S. Sudhakar,
- (b) Mr. S.P. Jadhav, and
- (c) Mr. Abijit Joshi (India)

WG-ON-FARM Agenda Item 3: Collection and collation of Micro and Sprinkler Data

4. After the Gwangju meeting, the Central Office has followed up with the National Committees to update the datasheets pertaining to micro and sprinkler area. The updated data were received from the National Committees of Austria, Burkina Faso, Iran, Japan, Spain, Sudan, and Uzbekistan. The updated table of total micro and sprinkler area in descending order is at **Annex 2**.

WG-ON-FARM Agenda Item 4: Proposals for 9th International Micro Irrigation Symposium

5. In order to promote the use of micro irrigation on large-scale, irrigation community worldwide, especially in developed countries ICID launched the hosting of International Micro Irrigation Congress commencing from the year 1971 by its member countries. Subsequently, ICID volunteered to organize the event commencing from 6th International Micro Irrigation Congress held at South Africa in 2000 with an objective of creating awareness among its members about latest developments in micro irrigation technology to enhance crop production. At the 61st IEC meeting held at Yogyakarta in 2010, a decision was taken that the nomenclature "Congress" is apt for one and only one event in ICID, which is the triennial ICID Congress that has been covered in the Constitution and By-laws and

all the events not decided in accordance with the By-laws are to be named as “Conference”. However, in the 15th meeting of the Working Group on On-Farm Irrigation Systems (WG-ON-FARM) held at Adelaide, Australia in June 2012 at the 63rd IEC meeting of ICID, it was decided to name it as Micro Irrigation Symposium .

6. Although it was not endorsed by IEC, keeping in view the importance of the subject and expected participation of large number of participants, it is suggested to keep event as International Micro Irrigation ‘Conference’ instead of ‘Symposium’. The main objectives of International Micro Irrigation Conference will be:

- To share experiences in the use of new technologies and best management practices in drip, micro-sprinkler, and other localized irrigation systems.
- To review the status of use of micro irrigation for smallholders.
- To understand socio-economic and technological factors impeding expansion of drip and micro-sprinkler irrigation area.

7. WG may like to discuss and confirm nomenclature as Micro Irrigation Conference.

8. In May 2015, ICID Central Office had invited proposals for hosting the 9th International Micro Irrigation Symposium (IMIS) from all the National Committees. A draft proposal for organizing the 9th Micro Irrigation International Symposium submitted by Indian National Committee on Surface Water (INCSW) will be tabled at Montpellier for discussion by the group.

SUPP.: A draft proposal for organizing the 9th Micro Irrigation International Symposium submitted by Indian National Committee on Surface Water (INCSW) is attached for discussion by the group.

WG-ON-FARM Agenda Item 5: Publications of the working group

WG-ON-FARM Agenda Item 5.1: Article on “Improvement of the On-Farm Irrigation Systems Using Simple Water Control, Measuring and Application Devices”

9. During Gwangju meeting in September 2014 the group noted that the article on “Improvement of the On-Farm Irrigation Systems Using Simple Water Control Measuring and Application Devices” was almost complete and likely to be submitted. ICID Central Office requested Chairman and Dr. Haile in March 2015 to expedite its finalization and submission. WG Chair and Dr. Haile may like to apprise the members of the present status on the article.

WG-ON-FARM Agenda Item 5.2: Paper on “Micro irrigation for smallholders and greenhouses”

10. Prof. Yoshisuke Nakano (Japan) provided the final report on ‘Micro irrigation for smallholders and greenhouses’ in November 2014 for its possible publication in ICID Journal. The report has been forwarded to VPH Felix Reinders for his perusal. Chair may like to apprise the group of the present status and further action in the matter.

WG-ON-FARM Agenda Item 6: Updating Multilingual Technical Dictionary (MTD)

11. At the 65th IEC, it was decided that ICID Central Office bring out an online version of the MTD and make it available through ICID website. In this connection, Central Office is collecting the terms available with different NC in their respective languages, based on 2010 version of MTD. PCTA would be discussing the issue of revision of the MTD, pruning down the chapters and concentrating on the chapters that are within the expert purview of ICID [Refer Agenda Item No. 4 of PCTA].

12. PCTA would require a feedback from each of the WGs as to how they plan to review / update the terms that fall within their respective scope of activities. WGs may discuss this issue and provide the required input to PCTA. To achieve this goal, it is proposed to undertake the review of the concerned terms by the respective Working Group depending on their domain of expertise and suggesting changes / modification including addition of new terms, contributing pictures, links and videos related to that particular term.

WG-ON-FARM Agenda Item 7: Guidelines for flood based irrigation systems

13. During the Gwangju meeting, it was proposed that Dr. Abraham Mehari Haile (The Netherlands) would make a presentation on spate irrigation at Montpellier meeting. Accordingly, ICID Central Office requested Dr. Haile for making a presentation on spate irrigation at Montpellier. Dr. Haile/ Chair may apprise the group.

WG-ON-FARM Agenda Item 8: Website of the workbody

14. The website of the working group (<http://www.icid.org/wg_onfarm.html>) is fully functional. Members are requested to access the WG website and share interesting reports/ articles/ documents etc. to ICID Central Office for posting on the website.

WG-ON-FARM Agenda Item 9: Closure report and revised mandate of the WG

15. A note giving summary of past activities of the task force has been prepared and circulated to all members. WG will prepare a closure report giving brief description of how its intended objectives and mandate have been achieved, including conclusion & recommendations and way forward.

16. At Gwangju meeting in 2014, WG was given an extension of one year till 2015 to complete its mandate and to develop a new mandate and prepare a Scoping Document (SD) for the new WG. Draft Scoping Document prepared by the Core Group (CG)¹ after incorporating suggestions of the WG, Chair was circulated to all members of the WG in April 2015 for their suggestions. Further, the SD was sent to all National Committees in May 2015 for their comments/suggestions, if any as well as to propose nominations for the new Working Group on Sustainable On-Farm Irrigation Systems Development (WG-SON-FARM). Draft scoping document based on the comments of ICID Central Office and NCs is at **Annex 3**.

17. The closure report for the previous tenure of the working group and the revised scope for the reconstituted WG with new mandate would be discussed and finalized in the meeting. The group will firm up the final SD during the meeting and forward it to PCTA/ IEC for its approval of establishing the new WG.

WG-ON-FARM Agenda Item 10: Any other business



NOTES FOR CHAIRPERSON:

1. Draft minutes of this meeting to be submitted to ICID Secretariat at Montpellier (France) after the meeting.
2. Chair to participate and present the WG report to PCTA meeting on 15 October 2015.

¹ Core group included Dr. Haile, Dr. Randev, Mr. Abdullah and Mr. Sijapati as its members.

Annex 1 [Appendix XV, Item 2]
A. Members and their attendance at 2013 and 2014 Meetings

| Sl. No. | Members | Member from (Year) | 2013 | | 2014 | | Remarks |
|----------------------------|--|--------------------|------|---------------------|----------------|---------------------|--|
| | | | Self | Contributed by mail | Self | Contributed by mail | |
| 1. | VPH Felix B. Reinders, Chairman, 2004 (South Africa) | 1998 | • | | • | | |
| 2. | VPH Prof. Peter Kovalenko, Vice Chairman (Ukraine) | 2001 | • | | # ² | | Recommended to make an Observer since Ukraine has become an Associate Member |
| 3. | Dr. A.K. Randev, Secretary (India) | 2005 | • | | • | | |
| 4. | Dr. Kim Sun-Joo (Korea) | 1999 | | | | | No contribution during last 2 years |
| 5. | Mr. Yan Guanyu (China) | 2002 | | | | | No contribution during last 2 years |
| 6. | VPH Dr. J.A. Ortiz (Spain) | 2003 | | • | | • | |
| 7. | Dr. Graziano Ghinassi (Italy) | 2004 | | • | | • | |
| 8. | Mr. Hassan Shantia (Iran) | 2006 | • | | # | | |
| 9. | Dr. Abraham Mehari Haile (The Netherlands) | 2008 | | | • | | |
| 10. | Mr. Francois Chretien (Canada) | 2010 | | | | | No contribution during last 2 years |
| 11. | Mr. Mohd Yazid bin Abdullah (Malaysia) | 2011 | • | | • | | |
| 12. | Mr. Jano Anter (Germany) | 2011 | | | | • | Recommended to make an Observer since Germany has become an Associate Member |
| 13. | Dr. Akira Iwamoto (Japan) | 2011 | • | | • | | |
| 14. | Dr. Chen, Ching-Tien (Chinese Taipei) | 2012 | • | | # | | |
| 15. | Mr. Suman Sijapati (Nepal) | 2013 | • | | • | | |
| 16. | Dr. Dickson Ahagbuje (Nigeria) | 2014 | | | • | | |
| 17. | Secretary General, ICID | | | | # | | |
| Permanent observers | | | | | | | |
| (i) | Mr. Bruno Molle (ISO) | | | | | | |
| (ii) | FAO Representative | | • | | | | |

² # - Through representation

B. New nominations received from the National Committees/ Direct Member

| Sl. No. | Name | Country | Remarks |
|---------|---|----------|---|
| (1) | Mr. Bashu Dev Lohanee | Nepal | Recommended, subject to his presence or else Provisional Member |
| (2) | Mr. Muhammad Tahir Anwar | Pakistan | Recommended, subject to his presence or else Provisional Member |
| (3) | Dr. Hossein Dehghani Sanij | Iran | Recommended, subject to his presence or else Provisional Member |
| (4) | Mr. M.S. Sudhakar – Direct Member, Jain Irrigation Systems Limited (JISL) | India | Recommended, subject to his presence or else Provisional Member |
| (5) | Mr. S.P. Jadhav – Direct Member, JISL | India | Recommended, subject to his presence or else Provisional Member |
| (6) | Mr. Abijit Joshi – Direct Member, JISL | India | Recommended, subject to his presence or else Provisional Member |

SPRINKLER AND MICRO IRRIGATED AREAS*(Arranged in descending order of total sprinkler and micro irrigated area)*

| Sl. No. | Country | Total irrigated area | Sprinkler irrigation | Micro Irrigation | Total sprinkler and micro irrigation | Percentage of total irrigated area | Year of reporting |
|---------|---------------------|----------------------|----------------------|------------------|--------------------------------------|------------------------------------|-------------------|
| | | (Mha) | | | | | |
| 1 | USA | 24.7 | 12,348,178 | 1,639,676 | 13,987,854 | 56.5 | 2009 |
| 2 | India | 60.9 | 3,044,940 | 1,897,280 | 4,942,220 | 8.1 | 2010 |
| 3 | China | 59.3 | 2,926,710 | 1,669,270 | 4,595,980 | 7.8 | 2009 |
| 4 | Brazil | 5.80 | 3,857,104 | 621,346 | 4,478,450 | 77.3 | 2013 |
| 5 | Spain | 3.61 | 852,189 | 1,756,138 | 2,608,327 | 72.4 | 2014 |
| 6 | Russia | 4.5 | 2,500,000 | 47,000 | 2,547,000 | 56.6 | 2012 |
| 7 | Ukraine | 2.2 | 2,450,000 | 52,000 | 2,502,000 | 100.0 | 2013 |
| 8 | France | 2.9 | 1,379,800 | 103,300 | 1,483,100 | 51.1 | 2011 |
| 9 | Kazakhstan, Rep. of | 1.2 | 1,400,000 | 17,000 | 1,417,000 | 100.0 | 2013 |
| 10 | Iran | 8.57 | 802,000 | 594,000 | 1,396,000 | 16.3 | 2015 |
| 11 | Italy | 2.42 | 958,535 | 422,534 | 1,381,069 | 57.1 | 2013 |
| 12 | South Africa | 1.67 | 920,059 | 365,342 | 1,285,401 | 77.0 | 2007 |
| 13 | Turkey | 5.73 | 680,000 | 340,000 | 1,020,000 | 17.8 | 2012 |
| 14 | Saudi Arabia | 1.62 | 716,000 | 198,000 | 914,000 | 56.4 | 2004 |
| 15 | Australia | 2.38 | 690,200 | 214,200 | 904,400 | 38.0 | 2005 |
| 16 | Canada | 1.053 | 683,029 | 6,034 | 689,063 | 65.4 | 2004 |
| 17 | Azerbaijan | 1.433 | 610,000 | 100 | 610,100 | 42.6 | 2013 |
| 18 | Korea, Rep. of | 1.010 | 200,000 | 400,000 | 600,000 | 59.4 | 2009 |
| 19 | Mexico | 6.2 | 400,000 | 200,000 | 600,000 | 9.7 | 1999 |
| 20 | Egypt | 3.42 | 450,000 | 104,000 | 554,000 | 16.2 | 2000 |
| 21 | Germany | 0.54 | 525,000 | 5,000 | 530,000 | 98.1 | 2005 |
| 22 | Japan | 2.92 | 430,000 | 60,000 | 490,000 | 16.8 | 2013 |
| 23 | Romania | 1.5 | 448,000 | 4,000 | 452,000 | 30.1 | 2008 |
| 24 | Slovak Rep. | 0.313 | 310,000 | 2,650 | 312,650 | 99.9 | 2000 |
| 25 | Israel | 0.231 | 60,000 | 170,000 | 230,000 | 99.6 | 2000 |
| 26 | Morocco | 1.65 | 189,750 | 8,250 | 198,000 | 12.0 | 2003 |
| 27 | Hungary | 0.22 | 185,000 | 7,000 | 192,000 | 87.3 | 2008 |
| 28 | Moldova | 0.228 | 145,000 | 15,000 | 160,000 | 70.2 | 2012 |
| 29 | Syria | 1.28 | 93,000 | 62,000 | 155,000 | 12.1 | 2000 |
| 30 | Austria | 0.117 | 117,000 | 20,000 | 137,000 | 100.0 | 2011 |
| 31 | UK | 0.11 | 105,000 | 6,000 | 111,000 | 100.0 | 2005 |
| 32 | Finland | 0.07 | 60,000 | 10,000 | 70,000 | 100.0 | 2010 |
| 33 | Portugal | 0.63 | 40,000 | 25,000 | 65,000 | 10.3 | 1999 |
| 34 | Malawi | 0.055 | 43,193 | 5,450 | 48,643 | 88.4 | 2000 |
| 35 | Sudan | 1.89 | 42,000 | - | 42,000 | 2.2 | 2012 |
| 36 | Chile | 1.09 | 16,000 | 23,000 | 39,000 | 3.6 | 2006 |
| 37 | Chinese Taipei | 0.38 | 18,850 | 8,750 | 27,600 | 7.3 | 2009 |

| Sl. No. | Country | Total irrigated area | Sprinkler irrigation | Micro Irrigation | Total sprinkler and micro irrigation | Percentage of total irrigated area | Year of reporting |
|---------|--------------|----------------------|----------------------|-------------------|--------------------------------------|------------------------------------|-------------------|
| | | (Mha) | Hectares | | | | |
| 38 | Bulgaria | 0.588 | 21,000 | 3,000 | 24,000 | 4.1 | 2008 |
| 39 | Czech Rep. | 0.153 | 11,000 | 5,000 | 16,000 | 10.5 | 2007 |
| 40 | Philippines | 1.52 | 7,175 | 6,635 | 13,810 | 0.9 | 2004 |
| 41 | Poland | 0.1 | 5,000 | 8,000 | 13,000 | 13.0 | 2008 |
| 42 | Slovenia | 0.0073 | 8,072 | 733 | 8,805 | 100.0 | 2009 |
| 43 | Uzbekistan | 4.26 | 5,000 | 2,000 | 7,000 | 0.2 | 2014 |
| 44 | Malaysia | 0.38 | 2,000 | 5,000 | 7,000 | 1.8 | 2009 |
| 45 | Macedonia | 0.055 | 5,000 | 1,000 | 6,000 | 10.9 | 2008 |
| 46 | Nepal | 1.18 | - | - | 5,000 | 0.4 | 2012 |
| 47 | Burkina Faso | 0.04 | 4,500 | 280 | 4,780 | 12.0 | 2015 |
| 48 | Lithuania | 0.0044 | 4,463 | - | 4,463 | 100.0 | 2010 |
| 49 | Estonia | 0.002 | 100 | 500 | 600 | 30.0 | 2013 |
| 50 | Iraq | 3.52 | - | - | 159 | 0.0 | 2012 |
| | Total | 225.63 | 40,769,847 | 11,111,468 | 51,886,474 | 23.0 | |

(Source: Based on the information provided by the NCs and information available on FAO's AQUASTAT)

**WORKING GROUP ON
SUSTAINABLE ON-FARM IRRIGATION SYSTEMS DEVELOPMENT (WG-SON-FARM)**

FIRST DRAFT SCOPING DOCUMENT

1. Introduction and rationale

- 1.1 If arid and semi-arid water stressed regions are to harness sustainable production gains and subsequent economic benefits, whilst managing direct and indirect environmental impacts, it is essential that:
- (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.
- 1.2 These issues will form the core mandate of the Working Group on Sustainable On-farm Irrigation systems (WG-SON-FARM).

2. Objectives

2.1 Relevance of the Working Group (WG)

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

- (a) the topic of sustainable on-farm irrigation systems is relevant to the vision and mission of ICID and of interest for its members, especially in countries with a high, medium and low Human Development Index;
- (b) the WG is expected to contribute to effective implementation of the Strategy Themes On-Farm and Knowledge and to other Strategy Themes for that matter;
- (c) While many major investments and activities in the past stopped at the farm gate, it is increasingly being recognized that substantial resources should also be allocated to on-farm irrigation systems, if programmes on new irrigation development and/or modernization of existing systems are to make major contributions to higher agricultural production, economic growth and environmental sustainability.

2.2 Relevance of the Working Group to the scope of the Thematic Area

2.2.1 The same justification outlined in the above is applicable for the relevance of the WG to the scope of the Thematic Area. In the coming periods, on-farm water management and development will be an imperative integral component of any new irrigation development and/or modernization activity.

2.3 Existing gap that the Working Group is expected to fill

2.3.1 Other ICID WGs or Task Forces (TF) that have a related scope of work are: WG-ENV; WG-SDTA, WG-DROUGHT; WG-Climate; TF-VE and the recently proposed WG-M&R. The details on this WGs and TF could be appreciated at: www.icid.org

2.3.2 The WG-M&R is mandated to study design and management of irrigation structures and efficient allocation and application of irrigation, but its scope ends at the farm gate. There is a gap in dealing with issues related to soil moisture management, water allocation, delivery and distribution at farm level. None of the WGs are presently mandated to make in depth study of sustainable development and management of on-farm irrigation systems.

2.3.3 This WG will also further enrich the knowledge-base of ICID community by bringing-in new insights on Flood-based Farming Systems (FBFS). FBFS represents a unique option for the management of often destructive floods in support of agricultural production and livelihoods of marginalized populations in poverty pockets in rural arid regions of Africa and Asia. Further, by their nature - using flood water rather than perennial flows -

they are quintessential adaptations to climate change and variability. The systems account for about 30 million hectares across the world – inclusion an estimated 15 million hectares in Sub Saharan Africa. Substantial local wisdom has developed over the past decades in organizing FBFS and managing both the floodwater and the heavy sediment loads that go along with it, but the systems have received little policy attention, largely stayed under the radar screen of major investment programmes and have been widely neglected by the scientific community.

- 2.3.4 The new WG has taken good note of the activities of all relevant ICID work bodies when preparing this Scoping Document.

3. State of knowledge on the topic

3.1 Other International Organisations that are working on the subject

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

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

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

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

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

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

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

4. Work Plan

4.1 Scope

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

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

4.1.2 Annex 1 has the details on the results-based work-plan for the period 2014 to 2019.

4.2 *Target audience*

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

4.3 *Outputs*

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

- (a) Six How-To-Do thematic notes supported with audio-visual material;
- (b) Three publications in the Irrigation and Drainage (IRD) journal: 2 research articles and one overview paper;
- (c) Six country overview papers published through relevant national facilities;
- (d) At least two workshops, seminars or symposiums successfully organized.
- (e) A position paper on sustainable development and management of on-farm irrigation systems

4.4 *Timelines*

4.4.1 Sustainable development and management of on-farm irrigation systems is an evolving important topic in light of its role in support of global food production. Nonetheless, it is recommended that the initial term of this WG will be set at six years. This timeline is based on the work-plan given in annex 1, which will be further refined during the inaugural meeting of the WG.

4.5 *Collaborators and dissemination strategy*

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

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

4.5.3 **Appendix** has the work-plan detailing the major activities for the period 2014 to 2019 and the main actors responsible for realizing the activities.

5. **Core Group**

5.1 The Core Group consists of:

Convenor: Dr. Abraham Mehari Hale

Members: Mr. Felix Reinders (former Chairman of WG On-Farm), Dr. A.K. Randev (Former Secretary, WG On-Farm); Mr Suman Sijapati, Mr Mohd Yazid bin Abdullah, Ms. Sabine Saidel

Appendix to Annex 3 Para 4.5.3

RESULTS-BASED WORK PLAN FOR THE WORKING GROUP ON SUSTAINABLE ON-FARM IRRIGATION SYSTEMS (WG-SON-FARM)

| Activity | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | Actors |
|---|------|------|------|------|------|------|---|
| Mailing of draft Scoping Document to members of the drafting team, former members of the Working Group On-Farm, Central Office and selected individuals | ■ | ■ | | | | | Convener |
| Comments on Updated Scoping Document received | ■ | | | | | | All consulted individuals |
| Scoping document finalized and sent to all who contributed to the drafting | ■ | ■ | | | | | Convener |
| Invitation to National Committees for nominations and information | | ■ | | | | | Central Office |
| Submission of nominations & information | | ■ | | | | | National Committees facilitated by Central office |
| 1st Meeting Montpellier - scoping document and work plan discussed, modified as necessary, and adopted | | | ■ | | | | Members and Permanent Observers |
| Exchange of information, knowledge, experience, networking | | ■ | ■ | ■ | ■ | ■ | Members and Permanent Observers |
| Support the Central Office with updating of the data base on (micro) irrigation systems | | ■ | ■ | ■ | ■ | ■ | Members and Permanent Observers |
| Prepare country overview papers (one square represents one paper) | | | ■ | ■ | ■ | ■ | Some members |
| How-To-Do Thematic documents ready (one square represents one document) | | | | ■ | ■ | ■ | Some members |

**AGENDA FOR THE 1ST MEETING OF THE
WORKING GROUP ON INSTITUTIONAL AND ORGANISATIONAL ASPECTS OF
IRRIGATION/ DRAINAGE SYSTEM MANAGEMENT (WG-IOA)**

14 October 2015, 09.00-10.30 hours
Montpellier, France

Strategy Theme: Schemes

Presented by the Chairman

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.

WG-IOA Agenda Item 1: Introduction of the new Working Group

1. At the 65th International Executive Council (IEC) held at Gwangju on 20 September 2014, VPH Hafied Gany made a presentation based on the draft Scoping Document for the new Working Group on Institutional Aspects of Irrigation/ Drainage System Management (WG-IOA). The Council accepted the recommendation of the PCTA that a new Working Group on Institutional Aspects of Irrigation/ Drainage System Management (WG-IOA)¹ with the mandate as provided in the Scoping Document (**Annex 1**) be established under the thematic area “Schemes” and requested NCs to nominate experts dealing with the concerned topics to contribute to the activities of the group. The main objectives and outcome of the WG are identified as follows:

(a) Objectives / Relevance

- (a) the topic of institutional and organisational aspects of irrigation/drainage system management is relevant to the vision and mission of ICID and of interest for its members, especially in countries with a high, medium or low Human Development Index;
- (b) the WG is expected to contribute to effective implementation of the Strategy Theme Schemes and to other strategy themes for that matter; and
- (c) most of the activities in irrigation/drainage will be in the field of modernisation of existing schemes. For most of the schemes, especially in countries with a high, medium or low Human Development Index, institutional and organisational changes will play an important role.

(b) Expected Outcome

- (a) sharing of knowledge and experience by representatives of NCs to enable them to disseminate the knowledge within their country;
- (b) summarized overview of existing key books, manuals, guidelines and other relevant publications on the topic;
- (c) the WG is expected to organise a series of workshops, seminars or symposia in three years at occasion of an international ICID meeting; and
- (d) to prepare an overview paper on the state of the art on the topic for publication in Irrigation and Drainage (IRD).

¹ IEC resolution 3/65: Organisational and technical activities of ICID (sr.no.7)

2. The VPH Dr. Gany, Chair of the Core Group may like to further apprise the WG at the meeting.

WG-IOA Agenda Item 2: Review of membership of the working group

WG-IOA Agenda Item 2.1: Membership of the group

3. Following Core Group members have contributed in preparing the Scoping Document of the WG viz. (i) VPH Dr. Hafied A. Gany (Indonesia), (ii) Dr. Masayoshi Satoh (Japan), (iii) Dr. Sanjay Belsare (India); (iv) Dr. Gurham Demir (Turkey); and (v) Dr. Ding Kunlun (China).

4. ICID vide notification no.8 of 2015 dated 26 May 2015 notified setting up of the WG-IOA and invited National Committees to nominate suitable experts/professionals for the WG. In response, National Committees of Nepal and UK have proposed Mr. Madhav Belbase and Mr. Philip J. Riddell for the membership of the group. In August 2015, the Japan National Committee (JNCID) has nominated Dr. Kazumi Yamaoka for the membership of the group as Nominated Observer². Korean National Committee (KCID) has nominated Dr. Seong Joon Kim for the membership of the group.

SUPP.:

Following nominations are received from the National Committees:

- a. Dr. Kazumi Yamaoka in place of Dr. Masayoshi Satoh (Japan)
- b. Dr. Ding Kunlun (China)
- c. Mr. Hasan Basri Yuksel (Turkey)
- d. Mr. Franck Sanfilippo (France) - CV is yet to be received
- e. VPH Franklin Dimick (USA) – CV is yet to be received

5. The existing membership of the WG and new nominations are given at **Annex 2** (see the *electronic version for the latest list*). Any new nominations for the membership received during the meeting will be dealt suitably after the meeting.

WG-IOA Agenda Item 2.2: Selection of new Chair, Vice Chair and Secretary

6. The group may like to discuss the membership and appoint a new Chair, Vice Chair and Secretary for the WG at the meeting.

WG-IOA Agenda Item 3: Work plan of the group

7. Keeping in view the importance of the institutional aspects of management, operation and maintenance of irrigation/drainage schemes in light of its role in support of global food production the Working Group is established with initial term of six years with effect from 2015. Members are requested to review the work plan presented in scoping document (Annex 1) and refine/update it during the inaugural meeting of the WG in Montpellier (France) in October 2015. Members are also requested to prepare three year rolling work plan in the format given at **Annex 3**.

WG-IOA Agenda Item 4: Presentation by the working group members

8. In order to fulfill scope of the WG, members of the WG may like to make presentation on the topics covered under its mandate. Interested members are requested to inform the Chair of core group and ICID Central Office well in advance.

WG-IOA Agenda Item 5: Any other business



NOTES FOR CHAIRPERSON:

1. Draft minutes of this meeting to be submitted to ICID Secretariat at Montpellier (France) after the meeting.
2. Chair to participate and present the WG report to PCTA meeting on 15 October 2015.

² As per ICID By-laws 3.5, for a wider representation of countries in a workbody, not more than two nominations from one country shall be accepted, provided one of the two nominees is a young professional. Since Dr Masayoshi Satoh is already a member of the WG from Japan Dr. Kazumi Yamaoka will be member of the WG as Nominated Observer in order to distinguish from the casual observer.

**WORKING GROUP ON
INSTITUTIONAL AND ORGANISATIONAL ASPECTS OF
IRRIGATION/ DRAINAGE SYSTEM MANAGEMENT (WG-IOA)**

DRAFT SCOPING DOCUMENT

(Prepared by Dr Hafied Gany and Prof Bart Schultz with contributions by Prof Satoh)

1. Preamble

- 1.1 There are at least five integrated aspects that must be properly maintained in order to secure the functional sustainability of irrigation/drainage in particular and development functions of infrastructures in general. These are: (1). Human resources; (2). Institution and Organization (3). Technology for sustainable O&M; (4). Sustainable O&M budget; and (5). Effective Regulatory Instrument and enforcement. The absence or unbalance of an integrated relationship among any of the five aspects would bring about ineffectiveness of infrastructural functions. Therefore, the five aspects cannot be seen in isolation.
- 1.2 Particularly after the completion of irrigation/drainage infrastructure, the subsequent aspect that must be scrutinized in the follow up sequences is human resources as the subject of activities in conjunction with appropriate Institutional setting.
- 1.3 In relation with ICID's mission, there are a number of Workbodies, Working Groups and Task Forces that have been established and operated to scrutinize a variety of related aspects that cannot be implemented simultaneously. Most recently some workbodies and working groups have been considered as parts of the totality. Among others, these are workbodies under Strategy Theme "Schemes", in which "Irrigation Management Transfer" has been specially intended to be established through expert working groups by means of "Scoping Documents" which will be forwarded to the PCTA and eventually approved by IEC (in this respect 65th IEC in Gwangju, Korea).
- 1.4 Irrigation Management Transfer in this respect is considered to be very specific, while the policies of governments, particularly countries with a high, medium and low Human Development Index³, are not always transferring irrigation management to the local authority, nor to the Water User Association (WUA). Some countries are still implementing irrigation Management under the government authority, fully or partially.
- 1.5 On the other hand, some government policies are attached to the term Participatory Irrigation Management (PIM). Most recently, the term PIM has been facing questions on the participatory policy. To what extent does the term participatory relate with the subject of participation? Who is participating on what? Whether the government participates to the farmers program or the farmers participate to the government program? The next question is to what extent would the participation have to be obligated by whom? These questions are highly dependent upon a number of situations and conditions of governments and farmers as well as the related stakeholders and communities.
- 1.6 In these regards, the New Working Group is suggested to be categorized with institutional and organisational relationships in terms of: "Institutional and Organisational Aspects of Irrigation / Drainage System Management - WG - IOIDM". This term has been proposed in relation with the scope of inter relationship with the five aspects mentioned above, with a rather flexible and wider scope of working spectrum. Institutional and organisational aspects are closely related with the management subjects, which are human resources, effective operation, management and maintenance policy as well as regulatory instruments and enforcement. In addition it could also accommodate Participatory Irrigation Management (PIM) and Irrigation Management Transfer (WG - IMT). Most significant, is that institutional and organisational aspects are relatively similar in terms of structural and substantial arrangements between irrigation and drainage and hence the working group is proposed to be termed as "Institutional and Organisational Aspects of Irrigation/Drainage System Management or WG - IOIDM" or in short Working Group on Institutional and Organisational Aspects (WG-IOA) with the following elaboration:

³ Low Human Development Index. Most of the countries in Africa, several countries in Asia, one country in Central America and most of the smaller countries in Oceania;

Medium and High Human Development Index. Most of the Eastern European countries (including Russia), most of the countries in Central and South America and in Asia (including China, India, Indonesia and Pakistan) and several countries in Africa;

Very High Human Development Index. Most of the countries in Western and Central Europe, North America and some countries in Central and South America and in Asia, the larger countries in Oceania and one country in Africa.

2. Introduction

- 2.1 With transfer of responsibility for water management to a local level, more attention has to be given to cost recovery of the service provided for water distribution. At the same time it is important to balance the budget, requiring detailed analysis of the source and application of funds. In turn this makes user-based performance assessments essential in order to identify irrigation performance indicators (Small and Svendsen, 1990)⁴. In this Scoping Document the relevant aspects of each of these items will be reviewed and the objectives, state of knowledge on the topic and the Workplan will be presented.

3. Objectives

3.1 Relevance of the Working Group

- 3.3.1 The relevance of the WG can be specified as follows:

- (a) the topic of institutional and organisational aspects of irrigation/drainage system management is relevant to the vision and mission of ICID and of interest for its members, especially in countries with a high, medium or low Human Development Index;
- (b) the WG is expected to contribute to effective implementation of the Strategy Theme Schemes and to other strategy themes for that matter;
- (c) most of the activities in irrigation/drainage will be in the field of modernisation of existing schemes. For most of the schemes, especially in countries with a high, medium or low Human Development Index, institutional and organisational changes will play an important role.

3.2 Relevance of the Working Group to the scope of the Thematic Area

- 3.2.1 For the relevance the same argumentation is applicable as shown under the relevance of the Working Group.

3.3 Existing gap that the Working Group is expected to fill

- 3.3.1 Other ICID WGs or Task Forces (TF) that have a related scope of work are: WG-ENV, WG-DROUGHT, WG-CLIMATE, WG-ON-FARM. The new WG has taken good note of the activities of these Workbodies when preparing this Scoping Document.

4. State of knowledge on the topic

4.1 Other International Organisations that are working on the subject

- 4.1.1 There is a limited number of other International Organisations that have programs and activities on this topic. These concerns the:

- (a) Food and Agriculture Organisation of the United Nations (FAO);
- (b) IWMI;
- (c) International Fund for Agricultural Development (IFAD);
- (d) multilateral development banks: ADB, AFDB, IADB, WB;
- (e) of the international partnerships only the WWC by organising the World Water Forums (WWF);
- (f) universities and institutes for international education: AIT, McGill University, UNESCO-IHE, University of Nebraska.

4.2 The niche that ICID is expected to fill in this area

- 4.2.1 In spite of huge resources put on this topic, we can point out three aspects still missing;

- (a) The past discussions are still individualistic and fragmented, and the generalization of experiences is not yet satisfactory.
- (b) Discussions on the generalization of methodology for implementing PIM are still weak.
- (c) Separation of common principles and indigenous conditions in successful cases are not satisfactory.

⁴ Reference Small and Svendsen, 1990

- 4.2.2 At the same time, we have to say that general/common understandings in this field are still not established systematically or in an integrated way; we discuss the importance of “Irrigation Management Transfer”, “Water User Association” and “Transferring decision-making power to farmers”. However, are they the final targets of PIM? What is the final target and what are necessary conditions for successful PIM?
- 4.2.3 How should we think of professionally oriented farmers versus small scale (or subsistent) farmers, large scale irrigation system versus small scale system, land owners versus tenant farmers, cost recovery versus government subsidy, volumetric charging versus land area charging, water supply company versus association of farmers, and efficiency versus equity? All discussion points will be emerging in considering policy and methodology for PIM.
- 4.2.4 Therefore, it is a big challenge that ICID organizes all the past experiences together to construct an integrated system of methodology for implementing PIM under various regional conditions. It will be possible through locating past experiences in the right position in the logical or theoretical framework, for which many serious discussions will be needed. The specific niche that this WG can fill in this area can be formulated as follows:
- (a) to exchange of information and networking on the topic in order to be up to date with new developments, methods and approaches. This can be the basis to present recommendations and if mature a position paper on key issues on institutional and organisational aspects of modernization of irrigation/drainage schemes;
 - (b) to review and prepare a condensed overview of existing key books, manuals, guidelines and other relevant publications on the topic;
 - (c) to prepare and present reports and/or case studies on recent development in the countries that are represented in the WG;
 - (d) to collect and review experiences and approaches with institutional and organisational aspects of irrigation/drainage system management in the countries that are represented in the WG;
 - (e) to organise international workshops, seminars or symposia on the topic;
 - (f) to prepare an overview paper on the state of the art on the topic for publication in *Irrigation and Drainage (IRD)*.

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

- 4.3.1 Other International Organisations can contribute to the activities of the WG by nominating Permanent Observers (PO). On the other hand presentations of the work and achievements of the WG can be presented at the occasion of events organized by International Organisations.

5. Work Plan

5.1 Scope

- 5.1.1 The WG is expected to investigate, analyse, and disseminate information on new developments and to formulate recommendations with respect to:
- 5.1.2 Legal Framework, Organizational Structures of Water User Association for Water Supply Services
- (a) institutional and organisational requirements for sustainable operation and maintenance of irrigation/drainage systems;
 - (b) possibilities for improvement of organisational arrangements for management, operation and maintenance of irrigation/drainage systems;
 - (c) approaches and requirements for water regulatory authorities, land property questions, water rights and financing of operation and maintenance of irrigation/drainage schemes;
 - (d) roles, responsibilities and requirements for sustainable Water Users Associations (WUA);
- 5.1.3 Participatory Irrigation Management, Irrigation Management Transfer, and approaches for Accounting and Auditing of Water Supply
- (a) approaches and systems of water accounting and auditing at various levels of irrigation/drainage systems,
 - (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;
 - (c) approaches and conditions for successful Participatory Irrigation/Drainage Management (PIDM);

5.1.4 Public Private Partnership, and Charging Mechanism for Cost Recovery

- (a) possibilities of and requirements for successful Public Private Partnerships (PPP) in irrigation/drainage;
- (b) methods and mechanisms for charging of irrigation/drainage services and determination of level of cost recovery.

5.2 Target audience

5.2.1 The target audience for this working group will be managers of irrigation/drainage schemes, leaders of water users associations, researchers, consultants, government officials, farmers representatives and staff of International Organisations working on the topic.

5.3 Outputs

5.3.1 The following outputs can be expected from this WG:

- (a) although it is an indirect output sharing of knowledge and experience by representatives of NCs will also enable them to disseminate this knowledge within their country;
- (b) condensed overview of existing key books, manuals, guidelines and other relevant publications on the topic
- (c) the WG is expected to organise a series of workshops, seminars or symposia in three years at occasion of an international ICID meeting;
- (d) to prepare an overview paper on the state of the art on the topic for publication in *Irrigation and Drainage (IRD)*.

5.4 Timelines

5.4.1 While institutional aspects of management, operation and maintenance of irrigation/drainage schemes is a very important topic in light of its role in support of global food production it is recommended that the initial term of this WG will be set at six years. The timeline would have to be based on the scope of work and the expected output. Details of the timeline would have to be formulated and refined during the inaugural meeting of the WG. (See **Annexure II**, Draft program time lines and activities of institutional and organizational working group – WG-IOA for discussion at the Inaugural Meeting)

5.5 Collaborators and dissemination strategy

5.5.1 The WG would have to base its activities on an open attitude with a clear scope for invitation of outsiders that are interested in the topic on a PO, or ad hoc basis. The dissemination strategy would have to be based of reaching those who can apply the findings and recommendations of the WG in their practice of management, operation and maintenance of irrigation/drainage schemes.

6. Core Group

6.1 This draft will be circulated among the National Committees with the request whether they can nominate members. In the meantime it will be further elaborated by a Core Group that initially consists of:

Convenor:

Dr Hafied Gany, Indonesia, gany@hafied.org; hafiedgany@yahoo.com;

Members: Dr Masayoshi Satoh satoh.masayoshi@gmail.com; smasty@mail2.accsnet.ne.jp

Dr Sanjay Belsare belsare.sanjay@gmail.com; jaltirth@rediffmail.com

Dr Gurham Demir DSI/TUCID demirg@dsi.gov.tr;

Dr Ding Kunlun klding@iwhr.com;











CC: Dr. Gerhard Backeberg VP ICID gerhardb@wrc.org.za;

Mr. Felix Reinders VPH ICID & Chair PCTA ReindersF@arc.agric.za;

ABBREVIATIONS AND ACRONYMS

| | | | |
|---------------|--|------------|---|
| ADB | Asian Development Bank | | |
| AFDB | African Development Bank | TF-SED | Agriculture Task Force on Sedimentation of Reservoirs |
| AIT | Asian Institute of Technology | TF-VE | Task Force on Value Engineering |
| AWC | Arab Water Council | ToR | Terms of Reference |
| CGIAR | Consultative Group on International Agricultural Research | | |
| C-PR&P | Committee on Public Relations and Publications | UNDP | United Nations Development Programme |
| DMT | Management Transfer of Drainage Systems | VP | Vice President |
| GWP | Global Water Partnership | WAS | Water administration system |
| IDB | Inter-American Development Bank | WATSAVE | Water Saving |
| IAH | International Association of Hydrogeologists | WB | The World Bank |
| IAHR | International Association of Hydro-Environment Engineering and Research | WG | Working Group |
| ICBA | International Centre for Biosaline Agriculture | WG-CLIMATE | Working Group on Global Climate Change and Agricultural Water Management |
| ICID | International Commission on Irrigation and Drainage | WG-CROP | Working Group on Water and Crops |
| ICARDA | International Centre for Agricultural Research in the Dry Areas | WG-DRG | Working Group on Drainage |
| ICOLD | International Commission on Large Dams | WG-DROUGHT | Working Group on Water Management in Water Stressed Regions |
| ICRISAT | International Crops Research Institute for the Semi-arid Tropics | WG-ENV | Working Group on Environment |
| IDE | International Development Enterprises | WG-IAIDM | Working Group on Institutional Aspects of Irrigation and Drainage System Management |
| IEC | International Executive Council | WG-IDM | Working Group on Irrigation Development and Management |
| IFAD | International Fund for Agricultural Development | WG-IMT | Working Group on Irrigation Management Transfer |
| IFPRI | International Food Policy Research Institute | WG-MDG | Working Group on Millennium Development Goals |
| IHA | International Hydropower Association | WG-M&R | Working Group on Modernization and Revitalisation of Irrigation Systems |
| INZ | Irrigation New Zealand | WG-MIS | Working Group on Management of Irrigation Systems |
| IRD | Journal Irrigation and Drainage | WG-ON-FARM | Working Group on On-Farm Irrigation Systems |
| IWMI | International Water Management Institute | WG-PIM | Working Group on Participatory Irrigation Management |
| IWA | International Water Association | WG-POVERTY | Working Group on Role of Irrigation in Poverty Alleviation and Livelihoods |
| IWRA | International Water Resources Association | WG-PQW | Working Group on Use of Poor Quality Water for Irrigation |
| LEPA | Low Energy Precision Application | WG-RRM | Working Group on Remodelling, Rehabilitation and Modernization |
| NC | National Committee | WG-SDTA | Working Group on Sustainable Development of Tidal Areas |
| NZ | New Zealand | WG-WATS | Working Group on Water Saving for Agriculture |
| OECD | Organisation for Economic Cooperation and Development | WG-WIM | Working Group on Water Management in Irrigation |
| PCTA | Permanent Committee for Technical Activities | WG-WSI | Working Group on Water Saving in Irrigation |
| PDM | Participatory Drainage Management | WMO | World Meteorological Organisation |
| PH | President Honoraire | WUA | Water Users Association |
| PIM | Participatory Irrigation Management | WWC | World Water Council |
| PO | Permanent Observer | WWF | World Water Forum |
| SG-ICID | Secretary-General of the International Commission on Irrigation and Drainage | | |
| SRI | System of Rice Intensification | | |
| TCC | Total Channel Control System | | |
| TF | Task Force | | |
| TF-BIO-ENERGY | Task Force on Water for Bio-Energy and Food | | |
| TF-FIN | Task Force on Financing Water for | | |

PROGRAM TIME LINES AND ACTIVITIES OF INSTITUTIONAL AND ORGANIZATIONAL WORKING GROUP – WG: IOA

| No. | PROGRAM | IMPLEMENTATION SCHEDULE (6 YEARS) | | | | | | | REMARKS | |
|------|--|-----------------------------------|---|--|--|------|---|------|---------|---|
| | | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | | |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) | |
| I. | ESTABLISHMENT PHASE OF WG-IOA • INAUGURAL MEETING: - Setting up Relevance WG members; - Institutional set up; - Setting up program; | |  INAUGURAL MEETING AT MONTPELLIER  | | | | | | | Scope of Works - Investigate; - Analyze,, - Formulate Recommendation; - Disseminate - Legal frame work WUA - Institutional organizational on O&M - Approaches land and water problem; - Roles and responsibilities - Sustainable WUA PIM; - Irrigation management Transfer, - Approaches; I/Drainage transfer IDMT - Transfer of ownership - W-Allocation, accounting & auditing; - Condition for successful PI/DM; PPP: (Public Private Partnership) - Charging Mechanism for Cost Recovery; - Possibility of success of PPP - Method and mechanism for determination of Cost Recovery; TARGET GROUP: Manager of Irrigation scheme; OUTPUTS: Books; Manual; Guidelines and publication; |
| II. | LITERATURE AND CASE STUDY REVIEW: • Exchange of information, Books and case studies on Institutional and organizational; • Report, manuals, guidelines; • Collect and review up experiences; | |   | | | | | | | |
| III. | STUDY INVESTIGATE ANALYSES FOR WORKSHOP, SEMINAR, SYMPOSIUM AND PUBLICATION • SEMINAR: • SYMPOSIUM: • WORKSHOP: | | |   | | | | | | |
| IV. | - Legal Frameworks; - Institution/Organization; - Approaches on Roles – WUAs; - PIM and Transfer IDMT; - PIDM; - PPP. Representing: (1) LHDI; (2) MHDI; (3) VHDI. | | | |   | | | | | |
| | PREPARATION OF PUBLICATION (WG-IOA) | | | | | |  PUBLICATION  | | | |

A. Membership of the group⁵

| Sl. No. | Members | Member from | Remarks |
|---------|--------------------------------|-------------|---------|
| 1. | Dr. Hafied A. Gany (Indonesia) | 2014 | |
| 2. | Dr. Masayoshi Satoh (Japan) | 2014 | |
| 3. | Secretary General, ICID | | |

B. New nominations received from the National Committees

| Sr. No. | Name | Country | Remarks |
|---------|--|----------------|--|
| 1. | Mr. Philip J. Riddell | UK | Recommended subject to his presence or else Provisional Member |
| 2. | Mr. Madhav Belbase | Nepal | Recommended subject to his presence or else Provisional Member |
| 3. | Dr. Kazumi Yamaoka in place of Dr. Masayoshi Satoh | Japan | Recommended subject to his presence or else Provisional Member |
| 4. | Dr. Seong Joon Kim | Korea, Rep. of | Recommended subject to his presence or else Provisional Member |
| 5. | Dr. Ding Kunlun | China | Recommended subject to his presence or else Provisional Member |
| 6. | Mr. Franck Sanfilippo | France | Recommended subject to his presence or else Provisional Member |
| 7. | Mr. Hasan Basri Yuksel | Turkey | Recommended subject to his presence or else Provisional Member |
| 8. | VPH Franklin Dimick | USA | Recommended subject to his presence or else Provisional Member |

⁵ Approved at 65th IEC held in September 2014 at Gwangju, Republic of Korea

Three-year work plan of the group

| Activity | 2015 | 2016 | 2017 |
|-----------------|-------------|-------------|-------------|
| | | | |
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APPENDIX XVII [PCTA Item 5.1]

**AGENDA FOR THE 8TH MEETING OF THE
WORKING GROUP ON WATER MANAGEMENT IN WATER
STRESSED REGIONS (WG-DROUGHT)**

14 October 2015: 09:00-10:30
Montpellier, France

Strategy Theme: Basin

Presented by the Chairman

Year of Establishment: 2008

Completion of the Mandate: 2015

Mandate:

- (i) Drought Management Strategies: To capture field experiences of the implementation of drought risk management strategies.
- (ii) Coping with water scarcity: (a) Computations based on climate data as a tool to be used in coping with water scarcity; (b) Approaches and strategies for incorporating economic justification when deciding on the amount of water to be allocated for agricultural production; (c) Design, operation and maintenance of sand dams – Under-ground water reservoirs.
- (iii) Rainfall management for sustainable agriculture: Innovation and implementation of smart rainfall management technologies.

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

WG-DROUGHT Agenda Item 1: Action taken report by Chair

1. The Chair may like to present a report regarding actions on the various decisions taken during the last meeting of the WG held at Gwangju (2014).

WG-DROUGHT Agenda Item 2: Review of the membership of the working group

2. The existing membership of the Working Group and their attendance at last two meetings is given in the **Annex 1**. No new nominations have been received for the membership of the WG.

3. Since this is the final meeting of this Working Group, there will be no need to change the membership status.

SUPP: Following nomination is received from Direct Members for membership of the WG-DROUGHT:

As per ICID By-Laws 3.5, Direct Members shall be the members of not more than three (3) work bodies. Jain Irrigation Systems Limited (JISL) has recently joined ICID as Direct Member and has nominated following for the Membership of the group (CV is yet to be received):

- **Mr. Sudhakar**

WG-DROUGHT Agenda Item 3: WebEx meeting of the group

4. As a new initiative, at the 65th IEC meeting held at Gwangju, Korea in September 2014, it was decided that the Working Groups should organize a WebEx meeting or a video-conference in between two face to face meetings of the IEC in order to enable the group to take a view of the progress made on their activities and at the same time allow contributions from those members who are unable to attend the face to face meetings.

5. Accordingly, WG successfully organized its first video-conference (Online/WebEx) meeting of the members on 18 February 2015 wherein four members and one observer participated and discussed various issues viz. final output of the WG-DROUGHT, feedback from Theme Leaders, proposed timeframe for publishing the WG document, amendment in the existing mandate, new mandate of the WG and preparation of scoping document of the WG were discussed. The minutes of the meeting (**Annex 2**) were circulated to the WG members in March 2015 for follow-up actions.

6. The Chairman may apprise the WG members.

WG-DROUGHT Agenda Item 4: Presentations by Theme Leaders

7. During the WG meeting held in Gwangju (Korea), three theme leaders, namely, Prof. Chang-Chi Cheng (Chinese Taipei), Theme Leader of Theme 1- Drought Management Strategies; Mr. Mohammad Sadegh Jafari (Iran), Theme Leader of Theme 2- Coping with water scarcity; and Mr. Clarke Ballard (Australia), Theme Leader of Theme 3- Rainfall management for sustainable agriculture (**Annex 3**) made their presentations on 'Drought Management Strategies in Water Stressed / Scarce Regions'; 'Iranian experience in coping with Water Scarcity and Drought'; and 'Rainfall Harvesting and Management for Sustainable Agriculture in Water Stressed/Scarce Regions', respectively. In addition, Dr. Abraham Mehrari Haile (The Netherlands) made a presentation on publication 'Design Guidelines for Flood Based Farming Systems' and Mr. Maurice Roos (USA) made presentation on 'Drought situation in California'. These presentations have been uploaded on the WG website (http://www.icid.org/wg_drought.html).

8. The Chairman may apprise the members of the Group.

WG-DROUGHT Agenda Item 5: Publications of the WG

WG-DROUGHT Agenda Item 5.1: Technical Report of the WG- DROUGHT

9. At the Gwangju (2014) meeting, the tenure of the WG was extended for one year to complete its mandate. The WG confirmed that the final publication of the WG-DROUGHT would be finalised in the extended period which will be a single document with three chapters, one on each theme. It is proposed to publish the final output of the WG in the ICID Journal as a technical paper with three separate themes. In order to expedite information from different NCs, the National Committees in November 2014 and January 2015 were requested to provide relevant information on three themes so as to make WG final output as complete as possible. In response, Pakistan National Committee of ICID (PANCID) and ICID-Chinese Taipei Committee (CTCID) sent their responses in December 2014 and April 2015 respectively. Responses from other NCs are awaited. The issue was further discussed during the WebEx (Online) meeting of the WG held on 18 February 2015 wherein as per agreed timeframe for finalisation of publication it was decided that the final document would be ready by the end of July 2015 after incorporating comments of WG members and would be submitted by the end of August 2015 for approval of WG at Montpellier in October 2015.

10. The Chairman may like to apprise Members on the final technical report of the WG.

WG-DROUGHT Agenda Item 5.2: Publication on Design Guidelines for Flood Based Farming Systems

11. At the Gwangju (2014) meeting, WG endorsed to bring out publication on 'Design Guidelines for Flood Based Farming Systems' by Dr. Abraham Mehrari Haile (The Netherlands) under the auspices of the WG. WG also noted that the publication was to be completed in 2015 and funds for bringing out publication have already been arranged. Dr. Haile has communicated that the draft chapters of the publication for presentation and discussion would be submitted two months' in advance of the WG meeting at Montpellier, France.

12. Dr Haile may like to apprise members of the WG on progress and make presentation on publication.

WG-DROUGHT Agenda Item 5.3: Scoping Document for reconstitution of the WG

13. During WebEx meeting of the WG on 18 Feb 2015, the Chairman informed the members that he would develop a 'Scoping Document' (SD) for the purposes of establishing a new Working Group to address the issue of management of water supplies in areas of man-made drought¹ or water scarcity (excluding those caused by Climate Change even though which can be considered man-made).

14. The Chairman may apprise the members of the WG on the status of SD of the new WG.

WG-DROUGHT Agenda Item 5.4: Closure report of the WG

15. A note on summary of activities of the WG during 2008-2015 is at **Annex 4**. WG will prepare a closure report giving brief description of how objectives and mandates of the WG have been achieved including conclusions, recommendations and way forward.

¹ Examples of man-made drought or water scarcity could be: (i) competing uses of water by environmental uses, domestic uses, etc.; (ii) Water shortages to downstream users due to increased efficiency of water use by upstream users thereby eliminating or reducing return flows; (iii) increase of municipal and industrial uses thereby reducing available surface and groundwater for agricultural uses.

WG-DROUGHT Agenda Item 6: Any other business

16. ICID News Update² covered following information related to drought topic which is shared with WG members for information and further discussion in the matter:

- (a) An International Symposium on “Droughts and Low Flows, including Groundwater” was successfully organized by Netherlands Hydrological Society in cooperation with the German Hydrological Society, Belgium National IHP National Committee, German National Committee IHP-HWRP, German Federal Institute of Hydrology and World Meteorological Organization on 24th October 2014 at Maastricht, The Netherlands.
- (b) A Conference on “DROUGHT: Research and Science-Policy Interfacing” was also successfully held from 10-13 March 2015 at Valencia, Spain. The aim of the conference was to discuss drought related research and the advances on response policies in order to foster the development of drought policies and plans to reduce risk and vulnerability, and to enhance preparedness and resiliency.
- (c) Lessons to Learn from California Droughts - California is entering the fourth year of a record-breaking drought creating an extremely parched landscape. A drought State of Emergency was declared in January 2015 by the Government and strict conservation measures have been imposed state wide. As a unified effort, all state agencies with a role in supporting drought mitigation and relief efforts were organized under the Incident Command System for continued support to provide emergency planning, response, and mitigation. 25 to 36 percent reduction in urban water use was introduced. Other important measures introduced to conserve water include cut in farm water supplies and requesting farmers to switch from flood irrigation or inefficient sprinklers to more efficient drip or micro-spray systems and install irrigation controllers to monitor water and soil conditions to deliver optimal water needed for plant growth as well as review of crops to be planted. Most important aspect of managing this extended drought is sharing of information among all the stakeholders starting from prediction to monitoring of the hydro-meteorological elements to water saving techniques.

17. The Members of the WG may like to discuss lessons learnt from California drought.



NOTES FOR CHAIRPERSON:

1. Draft minutes of this meeting to be submitted to ICID Secretariat at Montpellier (France) after the meeting.
2. Chair to participate and present the WG report to PCTA meeting on 15 October 2015.

² For more information, please see ICID News Update of February and June 2015 available at http://www.icid.org/nup2015_2.pdf and http://www.icid.org/nup2015_6.pdf respectively.

ATTENDANCE OF WG-DROUGHT MEMBERS AT 2013 AND 2014 MEETINGS

| Sl. No. | Members | Member from | 2013 | | 2014 | | Remarks |
|---------|--|-------------|----------------|---------------------|------|---------------------|---------------------------------|
| | | | Self | Contributed by mail | Self | Contributed by mail | |
| 1. | VPH Franklin E. Dimick, Chairman, 2009 (USA) | 2008 | # ³ | | • | | Attended the WebEx meeting |
| 2. | Mr. Mohammad Sadegh Jafari, Vice-Chairman, 2009 (Iran) | 2008 | • | | • | | |
| 3. | Mr. V.C. Ballard (Australia) | 2012 | • | | • | | Attended the WebEx meeting |
| 4. | Vice President Hon. Dr. Ragab Ragab (UK) | 2008 | | | • | | |
| 5. | Dr. Graziano Ghinassi (Italy) | 2008 | | | | | Recommended for discontinuation |
| 6. | Prof. Chang-Chi Cheng (Chinese Taipei) | 2008 | • | | • | | Attended the WebEx meeting |
| 7. | Dr. Takanori Nagano (Japan) | 2011 | • | | • | | |
| 8. | Dr. Gurhan Demir (Turkey) | 2012 | • | | | | No contribution during 2014 |
| 9. | Dr. Hakan Aksu as Young Professional | 2012 | • | | | | No contribution during 2014 |
| 10. | Secretary General, ICID | | | | | | |

³ # Through representation

**MINUTES OF ONLINE MEETING OF
WORKING GROUP ON WATER MANAGEMENT IN WATER STRESSED REGIONS (WG-DROUGHT)
(WEBEX / VIDEO CONFERENCING)**

Date: 18 February 2015 Time: 12:30 PM (India)

Members participated: (1) VPH Franklin E. Dimick (USA), Chairman; (2) Dr. Clarke Ballard (Australia), Secretary; (3) Mr. Chang-chi Cheng (Chinese Taipei); and (4) Dr. Sabine Seidel (Germany) as Observer.

Note: *The text in italics is the minutes of the meeting.*

Item A: Final output of WG-DROUGHT (Item 4.2)

Single document with three chapters is proposed.

Confirmed that we will have one document with 3 chapters and a preface that will tie them together.

Item B: Feedback from Theme Leaders (Item 3)

Theme 1: Drought Management Strategies in Water Stressed / Scarce Regions

Feedback from Prof. Chang-Chai Cheng (Chinese Taipei).

Theme 2: Coping with Water Scarcity

Feedback from Mr. Mohammad Sadegh Jafari (Iran).

Theme 3: Rainfall Harvesting and Management for Sustainable Agriculture in Water Stressed / Scarce Regions

Mr. V.C. Ballard (Australia)

None of the theme leaders have received any additional information. I will contact you directly to see what we can do to help complete your chapter.

Item C: Time Frame (Item 5)

The proposed time frame was:

- Mid-October 2014 - send out specific request to member countries asking for response by end December – Done. No response – reminder sent.
- End-December – material received by three team leaders;
- End-March 2015 – Theme leaders provide completed chapters to Chairman to circulate within WG for comment;
- End May-comments received;
- End July-team leaders complete re-writes of chapters and forward to Chairman;
- End August-Chairman to circulate whole document, with a forward, to be considered for final approval at Montpellier (France) in October 2015.

Since we have not received any additional information, we have modified the schedule as follows:

- *February, 2015 - Central Office will send out a follow-up letter to all National Committees reminding them of the need for information.*
- *End of April, 2015 - Theme Leaders complete draft of each Chapter and submit to Chairman Dimick.*
- *End of May, 2015 - Chairman Dimick to draft Preface and send out all chapters and Preface to WG members for review and comment.*
- *End of June, 2015 - Comments from WG members on draft document due to Chairman Dimick and he transmits to Theme Leaders.*

- *End of July 2015 - Theme Leaders complete rewrite of chapters (Preface is also rewritten as needed).*
- *End of August, 2015 - Chairman Dimick to transmit finalized document with Preface to be considered for final approval of WG at Montpellier in October 2015.*

Item D: Amendment in the existing mandate (item 6)

Re-defining conventional irrigation efficiency; and (b) Critical evaluation of the validity of the crop water requirement.

Confirmed that these two items of Mandate will be eliminated.

Item E: New mandate of the WG (Item 4.3)

Focus on management of ongoing (permanent) water scarcity, whether caused by natural events or human intervention, rather than on (temporary) drought as the present WG has done.

Scoping document to be prepared (draft framework for scoping document has been circulated)

Chairman Dimick will develop a scoping document for the purpose of establishing a new Working Group that will address the management of water supplies in areas of man-made droughts or water scarcity (excluding those caused by Climate Change even though that may be considered man-made). Examples of man-made droughts or water scarcity could be: 1) competing uses of water by environmental uses, domestic uses, etc.; 2) Water shortages to downstream users due to increased efficiency of use by upstream users thereby eliminating or reducing return flows; 3) Increase of Municipal and Industrial uses thereby reducing available surface and groundwater for agricultural uses.



Annex 3 [Appendix XVII, Item 4]

WORK TEAMS AND ITS MEMBERSHIP

| Themes of the WG-DROUGHT | Theme 1 : Drought Management Strategies in Water Stressed / Scarce Regions | Theme 2 : Coping with Water Scarcity | Theme 3 : Rainfall Harvesting and Management for Sustainable Agriculture in Water Stressed /Scarce Regions |
|-----------------------------------|--|---|---|
| Theme Leaders of the WG | Prof. Chang-Chi Cheng (Chinese Taipei) | Mr. Mohammad Sadegh Jafari (Iran) | Mr. Clarke Ballard (Australia) |
| Members of the Theme Group | VPH Dr. Ragab Ragab (UK) Dr. Graziano Ghinassi (Italy) Dr. T. Watanabe (Japan) | VPH Dr. Ragab Ragab (UK) Dr. Abraham Mehrari Haile (The Netherlands) Dr. T. B.S. Rajput (India) | VPH Dr. Ragab Ragab (UK) VPH Dr. Franklin E. Dimik (USA) Dr. Benjamin de León Majarro (Mexico) |



SUMMARY OF ACTIVITIES OF WG (2008-2015)

- 2008-09** — The WG was established in 2008 and held its 1st meeting on 15 October 2008 at Lahore, Pakistan. Dr. Saeed Nairizi, Chairman of the erstwhile WG suggested to the core group of new WG to update the main outputs of the erstwhile WG covering the following five topics (i) Literature review and data base; (ii) Drought indices; (iii) Drought management strategies; (iv) Drought prediction; and (v) Non-conventional use of water for agriculture during 2009 and make the material ready for publication in the form of a book. As part of mandate of new WG, following three thematic areas were formulated (i) Drought management strategies, (ii) Coping with water scarcity, and (iii) Rainfall management for sustainable agriculture.
- 2009-10** — At 2nd meeting of the WG held at New Delhi, India (2009), VPH Franklin E. Dimick (USA), Mr. Mohd. Sadegh Jafari (Iran) and Dr. Abraham Mehari Haile (The Netherlands) were elected as new Chairman, Vice-Chairman and Secretary of the WG, respectively. Dr. T.B.S. Rajput (India) was also elected as a new member of the WG. The WG circulated a draft document of the erstwhile WG titled 'Irrigation under Drought and Water Scarcity' to the members for their comments and revisions, if any. Members deliberated during the meeting on concept and ideas on how to approach the three thematic areas.
- 2010-11** — Dr. Benjamin de León Mojarro (Mexico) was elected as a new member of the WG in 2010 at Yogyakarta, Indonesia. The WG approved publication on "Irrigation under Drought and Water Scarcity" in a book format. M/s. Mahab Ghodss Consulting Engineering Company of Iran had offered to sponsor partially the publication cost of the Book. WG requested the member countries to arrange for supplementary funding for the publication. WG identified topics to be considered under three themes after extensive discussion.
- With the new title "Drought Management Strategies in water stressed/scarce regions" under Theme 1, Prof. Chang-Chi Cheng (Chinese Taipei) was nominated as Theme Leader of Theme 1 and Mr. Mohammad Sadegh Jafari, Vice-Chairman (Iran) was nominated as the Theme Leader of Theme 2 under "Coping with Water Scarcity". Dr. Abraham Mehari Haile, Secretary (The Netherlands) volunteered to cooperate and assist the Theme Leader 2. It was agreed to modify the title of Theme 3 as "Rainfall Harvesting and Management for Sustainable Agriculture in Water Stressed/Scarce Regions" and Dr. Ballard (Australia) was nominated as its Theme Leader. It was agreed that the three Theme Leaders and the concerned members would produce a comprehensive single document by 2014.
- 2011-12** — Fourth meeting of WG was held at Tehran (Iran) in October 2011. Dr. Kiwook Park (Korea) and Dr. Takanori Nagano (Japan) were accepted as Member of the WG. Three theme leaders presented papers on their experience and work plan for the theme. WG agreed that the Theme Leaders would present intermediate outputs at the WG meeting in June 2012 at Adelaide, Australia and a workshop would be organized during 2013 meeting in Turkey to discuss draft final findings of the WG. WG publication on "Irrigation under Drought and Water Scarcity" was under final stages.
- 2012-13** — During the WG meeting held in 2012 at Adelaide (Australia) presentations were made by theme leaders/WG Chair on three themes. WG accepted membership of Mr. Clarke Ballard (Australia), Dr. Ir. Gurhan Demir (Turkey), and Dr. Hakan Aksu (Turkey) as Young Professional. WG approved the publication on 'Irrigation under Drought and Water Scarcity' although events referred in the documents relate to the period 2004-2007. The WG also approved organization of an International Workshop on 'Developing Management Strategies for Coping with Drought and Water Scarcity' during the First World Irrigation Forum (WIF1).
- 2013-14** — In 6th meeting of the WG in October 2013 at Mardin (Turkey) Mr. Clarke Ballard was accepted as Secretary in place of Mr. Abraham Mehari Haile (The Netherlands). WG organized an International Workshop on 'Developing Management Strategies for Coping with Drought and Water Scarcity' during World Irrigation Forum in at Mardin. Seven of the accepted nine papers were presented and discussed during the workshop. WG was introduced with the Integrated Drought Management Program (IDMP) which was being implemented by WMO in collaboration with GWP and in cooperation with other international organizations. Three theme leaders also presented progress of work in respect of their respective themes. The WG decided on a single publication with 3 chapters based on the 3 themes to be presented at the 2014 meeting in Korea.
- 2014-15** — The Working Group held its 7th meeting at Gwangju (Korea) in 2014 where the following presentations were made: (1) 'Drought Management Strategies in Water Stressed / Scarce Regions', (2) 'Iranian experience in coping with Water Scarcity and Drought', (3) 'Rainfall Harvesting and Management for Sustainable Agriculture in Water Stressed/Scarce Regions', (4) 'Drought situation in California', and (5) 'Design Guidelines for Flood Based-Farming Systems'. These presentations have been uploaded on the website of WG (http://www.icid.org/wg_drought.html).

9. The WG reviewed progress in respect its final output and requested for one year extension to complete its mandate, which was approved by IEC/PCTA. WG decided to complete final output by August 2015 for discussion and finalization during its next meeting in October 2015 at Montpellier (France). In view of completing its mandate, the WG was also preparing a 'Scoping Document' to focus on the management of ongoing (permanent) water scarcity, whether caused by natural events or human interventions. The WG recommended merit in setting up of a new WG focusing on management of ongoing (permanent) water scarcity, whether caused by natural events or human intervention, rather than on (temporary) drought, which was approved by IEC/PCTA.



APPENDIX XVIII [PCTA Item 7.3]

**AGENDA FOR THE 4TH MEETING OF THE
TASK FORCE ON VALUE ENGINEERING (TF-VE)**

14 October 2015: 09:00-10:30 hours
Montpellier, France

Strategy Theme: Knowledge

Presented by the Chairman

Year of Establishment: 2012

Completion of the Mandate: 2015

Mandate: The objective of the Task Force (TF) would be to promote the application of Value Methodology (Value Engineering, Value Analysis, Value Planning, Value Management and Value Engineering Change Proposal (VECP) in irrigation, drainage and flood management projects to increase benefits, reduce cost and ensure sustainable irrigated agriculture.

Terms of Reference (ToR)

1. Develop a Website on application of Value Engineering in Irrigation and Drainage projects
2. Produce a Documentary on application of Value Engineering in Irrigation and Drainage projects
3. Organize workshops and seminars on application of Value Engineering in Irrigation and Drainage projects
4. Prepare a Manual on application of Value Engineering in Irrigation and Drainage projects

Website: <http://tf-ve.icidonline.org/>

TF-VE Agenda Item 1: Action Taken Report by Chair

1. Chairman may like to present a report regarding actions taken on the decisions made during the last meeting of the TF at Gwangju (2014), Korea.

TF-VE Agenda Item 2: Membership of the Task Force

2. No new nomination was received by the Central Office for the membership of the Task Force.
3. The current membership of the TF and their attendance for the last two meetings is given at **Annex 1**.

SUPP: Following nominations are received from Direct Member for membership of the Task Force:

As per ICID By-Laws 3.5, Direct Members shall be the members of not more than three (3) work bodies. Jain Irrigation Systems Limited (JISL) has recently joined ICID as Direct Member and has nominated following for the membership of the group (CVs are yet to be received):

- **Mr. Abijit Joshi and**
- **Mr. Yeolkar**

TF-VE Agenda Item 3: Internal Workshop of TF-VE at Montpellier, France in 2015

4. The Task Force on Value Engineering (TF-VE) is planning to organize an Internal Workshop during 26th ERC and 66th IEC meetings on 14 October 2015 (11:00-12:30 hours). The main theme of the workshop is 'Value Methodology for Enhancing Large Project' and other subtopics of the workshop are : (a) The benefits and costs of Value Engineering in Large Projects (Case Studies); (b) The prerequisites for applying Value Engineering in Developing Countries; (c) The synergy of creative techniques and team work in Value methodology; (d) Function Analysis and FAST diagrams in Value Methodology; and (f) The legal requirements for application of Value Engineering in large projects.

5. The announcement of this workshop has been circulated to the members of the TF and their active participation has been requested.

6. The Chairman may apprise the WG members.

TF-VE Agenda Item 4: Publication of the TF

7. At Gwangju (2014) meeting it was agreed that the manual on 'Application of Value Engineering in Irrigation and Flood Projects' would be published before the completion of the tenure of the TF at Montpellier, France in October 2015. The manual would include various aspects on value engineering as applied to irrigation, drainage and flood control sectors in addition to case studies. The finalised draft of the manual is to be submitted to the ICID Central Office for circulation amongst the members of the TF for their comments/suggestions, if any. The Chairman informed that work on the manual is still ongoing as more case studies are needed for inclusion in the manual.

8. Chairman may brief about the status of finalisation of the manual during meeting of the TF.

TF-VE Agenda Item 5: Developing TF website

9. There is an exclusive website for TF-VE (<http://tf-ve.icidonline.org/>) which contains information such as (a) the mandate of the TF; (b) List of Members; (c) Agenda & Minutes of its annual meetings; (d) Workshop presentations and papers by the authors/members; and (d) Events etc.

10. The presentations on "Value Engineering Change Proposal of Irrigation and Drainage Networks in Ramhormoz – Iran" by the Chairman, 'VE in Japan' by Dr. Toshihiko Kuno (Japan), and 'Implementing Value Management for a Flood Mitigation Project – Malaysian Experience' by Ir. Nor Hisham Mohd Ghazali (Malaysia) made at Gwangju meeting have been made available at the TF Website.

11. The Chairman may apprise the TF members.

TF-VE Agenda Item 6: Closure report of the Task Force

12. A note giving summary of past activities of the task force is given as **Annex 2**.

13. TF will prepare a closure report giving brief description of how its intended objectives and mandate have been achieved, including conclusion & recommendations and way forward.

TF-VE Agenda Item 7: Any other business

14. At the Gwangju (2014) meeting, the Malaysian National Committee of ICID (MANCID) proposed to organize a workshop on 'Application of Value Engineering in Irrigation and Flood Projects in Malaysia' in Malaysia. Central Office followed up with MANCID about organisation of this workshop who informed that they would be unable to organize the workshop this year due to certain circumstances.



NOTES FOR CHAIRPERSON:

1. Draft minutes of this meeting to be submitted to ICID Secretariat at Montpellier (France) after the meeting.
2. Chair to participate and present the WG report to PCTA meeting on 15 October 2015.

Attendance of members in 2013 and 2014

| Sl. No | Members | Member From (Year) | 2013 | | 2014 | | Remarks |
|--------|---|--------------------|------|---------------------|------|---------------------|---------------------------------|
| | | | Self | Contributed by mail | Self | Contributed by mail | |
| 1. | Dr. Kamran Emami, Chairman (2013) (Iran) | 2012 | . | | . | | |
| 2. | Mrs. Remziye Yildiz Gulagaci, Vice-Chairman (2013) (Turkey) | 2013 | | | | | Recommended for discontinuation |
| 3. | Ir. Nor Hisham M. Ghazali, Secretary (2013) (Malaysia) | 2013 | . | | . | | |
| 4. | Mr. Francois Brelle (France) | 2013 | | | | | Recommended for discontinuation |
| 5. | Dr. Vijay K. Labsetwar, Director, ICID Central Office | 2012 | . | | . | | |

SUMMARY OF ACTIVITIES OF TF-VE (2012-2015)

1. At its 31st meeting of the Permanent Committee for Technical Activities (PCTA) held at Tehran, Iran (2011), it recommended the creation of a new Task Force on 'Value Engineering', which was subsequently approved by the 62nd International Executive Council (IEC) meeting. Dr. Kamran Emami (Iran) was offered to take the responsibility as new Convener of the Task Force. The first meeting of the TF was held in 2012 at Adelaide, Australia, where the background, mandate (draft), Terms of Reference (ToR), workplan, membership of the TF, nomination/election of the Chairperson, Vice-Chair and Secretary were discussed. TF decided that Dr. Emami and Ir. Nor Hisham Bin Mohd Ghazali (Malaysia) would act as Convener and Secretary of the TF, respectively. After discussion the mandate of the TF was approved for its tenure of 3 years i.e. 2012-2015.
2. Thus ICID formed a Task Force on 'Application of Value Engineering in Irrigation and Drainage Projects' in 2012 with a mandate to promote the application of Value Methodology (Value Engineering, Value Analysis, Value Planning, Value Management and Value Engineering Change Proposal (VECP)) in irrigation, drainage and flood management projects to increase benefits, reduce cost and ensure sustainable irrigated agriculture.
3. The ToR of the Task Force was defined as follows: (a) Develop a Website on application of Value Engineering in Irrigation and Drainage projects; (b) Produce a documentary on application of Value Engineering in Irrigation and Drainage projects; (c) Organize workshops and seminars on application of Value Engineering in Irrigation and Drainage projects; and (d) Prepare a Manual on application of Value Engineering in Irrigation and Drainage projects.
4. During Adelaide meeting (2012) Chairman Dr. Kamran Emami presented a brief history of Value Engineering and its philosophy by outlining potential applications of Value Engineering in irrigation and drainage and flood control projects. Eng. Nor Hisham M. Ghazali (Malaysia) shared a brief presentation on the 'Implementation of Value Engineering in Malaysia'.
5. During Mardin (2013) meeting Dr. Emami and Ir. Nor Hisham Bin Mohd Ghazali (Malaysia) were elected as Chairman and Secretary respectively while Mr. Francois Brelle (France) and Mrs. Remziye Yildiz Gulagaci (Turkey) were elected as new members of the TF. At Adelaide meeting (2012) TF decided to organize an internal workshop on VE application in Irrigation and flood projects during at Mardin, Turkey in 2013 which was deferred to 22nd ICID Congress and 65th IEC meeting at Gwangju in 2014 due to poor response for call for papers. Thus, Internal Workshop of TF-VE titled "Value Engineering Applications" was held in September 2014 at Gwangju, Korea wherein following three presentations were made by the Members: (i) 'Implementing value management for a flood mitigation project – Malaysian experience' by Ir. Nor Hisham Mohd Ghazali (Malaysia); (ii) 'VE practice in Japan' by Dr. Toshihiko Kuno (Japan); and (iii) 'Value Engineering Change Proposal of Irrigation and Drainage Networks in Ramhormoz – Iran' by Chairman Dr. Kamran Emami and Ir. Saeed Pourshahidi from Iran. Dr. Toshihiko Kuno (Japan) and Mr. Suman Sijapati (Nepal) were also elected as new members during the Gwangju meeting in 2014.
6. The Task Force on Value Engineering (TF-VE) will organize an Internal Workshop titled 'Value Methodology for Enhancing Large Project' with following six subtopics: (a) The benefits and costs of Value Engineering in Large Projects (Case Studies); (b) The prerequisites for applying Value Engineering in Developing Countries; (c) The synergy of creative techniques and team work in Value methodology; (d) Function Analysis and FAST diagrams in Value Methodology; and (f) The legal requirements for application of Value Engineering in large projects.
7. TF would complete its mandate and finalize the Manual on Application of Value Engineering in Irrigation and Flood Projects in the next meeting of TF to be held in October 2015 at Montpellier, France.



**AGENDA FOR THE 3RD MEETING OF THE
TASK FORCE TO GUIDE ICID INPUTS TO 7TH WORLD WATER FORUM (TF-WWF7)**

14 October 2015, 11.00-12.30 hours
Montpellier, France

Strategy Theme: Knowledge

Presented by the Chairman

Year of Establishment: 2012

Completion of the Mandate: 2015

Mandate: (1) To provide overarching lead role on behalf of ICID for inputs to 7th WWF by liaising with: (i) National Committees for required inputs for active participation in the themes of 7th WWF which are of direct relevance to ICID, and (ii) Workbodies on specific subjects related with 7th WWF, (2) To liaise with Korean National Committee (KCID) for preparatory work of 7th WWF; (3) To liaise with 7th WWF Program Committee and other International Bodies, especially FAO, interested to participate in the activities proposed to be organized during the 7th WWF; and (4) To regularly report to the IEC of the developments in the preparatory works leading to 7th WWF and recommend ICID inputs for consideration in the next IEC.

TF-WWF7 Agenda Item 1. Action taken report by Chair

1. The chair took necessary actions since Gwangju meeting of the TF in order to fulfill its mandate.

TF-WWF7 Agenda Item 1.1: Participation in WWC BoG meeting and International Water & Energy Conference in October 2014

2. The chair attended the 53rd WWC BoG meeting held in Marseille on 26-28 October, 2014 and assisted President Nairizi, a WWC governor taking over the former President Gao, in explaining the ICID initiative regarding World Water System Heritage (WSH) program together with SG Tyagi and Dr. Yamaoka.

3. After the WWC meeting, Mr. Ota and Dr. Yamaoka visited Societe Du Canal De Provence in Aix-en-Provence, where a meeting was arranged by Mr. Jacques Plantey, Coordinator of the French project "Water Management and Food Security faced to Climate Change challenges". VP Mr. Brelle and his French colleagues joined this meeting and discussed about their French initiative, which would be linked to the session 2.1.4. Dr. Yamaoka introduced WSH program to draw their attention.

4. The chair also attended International Water & Energy Conference held in Lyon, France from 29 to 31 October, 2014 in order to convey ICID's willingness to collaborate with other sectors. The chair Ota made a keynote presentation for better collaboration between water and energy in the workshop on Mutual Collaborations by Innovative Approaches proposed by ICID. He introduced practical solutions to lead the water-energy collaboration into success.

TF-WWF7 Agenda Item 1.2: Preparation of the session 2.1.3

5. After submitting Thematic Process Session Proposal Form to the Forum secretariat in September 2014, ADB, China Institute of Water Resources and Hydropower Research (IWHR) and Tragsa Group (a state owned Spanish holding) shown strong interest in participating in the session 2.1.3.

6. Regarding review of the commitments made in WWF6, the chair, commissioned by Dr. Unver, the Design Group coordinator, sent all the coordinators of 9 target groups under Theme 2.2 on email seeking their contribution to Food Security by Optimal Use of Water. In response, PH Prof. Bart Schultz, co-coordinator of Key Priority 2.2 and coordinator of Target 2.2.3, provided the valuable input with a draft article "Food Security by Optimal Use of Water: Synthesis of the 6th World Water Forum and Developments since Then", which indicated some recognizable improvements in world cereal stocks/prices after WWF6.

7. Confirming attendance of Dr. Unver, the session program was finalized. SG Tyagi was a speaker from ICID whose presentation focused on the action plans of ICID between WWF7 and WWF8.

TF-WWF7 Agenda Item 1.3: Coordination of other sessions and events

8. In addition to the preparation for Theme 2.1, ICID was requested to participate in various sessions and events. The chair also tried to get ICID involved and coordinated on other occasions so that viewpoints and ideas of ICID could be reflected in the discussions.

9. After coordinating with each organizer, President Dr. Nairizi became a speaker/panelists in the following sessions and events:

- (a) Session 1.4.2 Water storage Infrastructures for UN SDG coordinated by ICOLD
- (b) Session 4.4.1 Fostering water heritage, water values and related cultural expressions coordinated by ICOMOS Netherlands
- (c) High level Panel on How can we achieve a water and food secure future?, coordinated by FAO and WWC
- (d) Cross-cutting Session on The Water-Energy-Food Nexus: Are we finally talking?, coordinated by FAO, IWA and IUCN
- (e) Side event on Ensuring Sustainability of Irrigation Facilities after Transfer to Water User Organizations (WUOs), organized by DSI of Turkey and TUCID
- (f) Side event on Communal Water Management for Coherence and Resilience, coordinated by Japan International Research Center for Agricultural Sciences (JIRCAS)

TF-WWF7 Agenda Item 1.4: Preparation for Implementation of Roadmap

10. One of the main features of WWF7 was “implementation”, and Implementation of Roadmap (IR) and Action Monitoring System (AMS) were introduced. Each Thematic Design Group was requested to prepare IR by setting out a strategic plan for implementing solutions and prioritized actions between WWF7 and WWF8 and to make good use of AMS where IR will be displayed and outcomes will be tracked and monitored.

11. Recognizing its importance, the chair requested all the WGs and NCs to submit their action plans so that their inputs could be incorporated in the Implementation Roadmap. However, only limited feedbacks were received from TANCID, KCID, JNCID, ICID-YPF, PAWEES and DSI of Turkey. The chair drafted Implementation Roadmap of ICID, based on these inputs, and incorporating the envisaged ICID events and WG activities by WWF8 to be held in March 2018 in Brasilia.

12. In order to contribute to preparation of the IR of the Theme 2.1, the chair sent the ICID draft IR to Dr. Olcay Unver of FAO, the coordinator of the Thematic Design Group, for their reference. As a result, the ICID draft IR comprised core part of the IR for the Theme 2.1 prepared by the coordinator.

13. The ICID-related Implementation Roadmap is available at **Annex 1**.

TF-WWF7 Agenda Item 1.5: Involvement in Political Process from ICID

14. The chair requested to the secretariat for the political process through the coordinator of Thematic Design Group 2.1 to include a sentence mentioning necessity of appropriate investments in irrigation modernization in Ministerial Declaration. The request was reflected in Daegu-Gyeongbuk Recommendations to the Ministers which was originally recognized an annex to the Ministerial Declaration (**Annex 2**).

TF-WWF7 Agenda Item 1.6: Preparation of Poster Exhibition

15. The poster session was prepared aiming at gaining publicity of ICID activities at the occasion of WWF7. The chair requested all the NCs and WGs to submit pictures focusing on ICID professionals interacting with various people and facilities so that various efforts in water saving practices, irrigation efficiency improvement, irrigation facilities modernization, and others could be presented to the world.

16. Eleven National Committees of Canada, China, France, India, Iran, Japan, Korea, Mali, Spain, Thailand and Turkey contributed to this initiative by submitting pictures with relevant information. Regarding Tanzania, Peru (Non-member) and Vietnam (Non-member), pictures related ODA projects were obtained from JNCID. In close collaboration with the Central Office, 14 posters showing country cases with balanced geographical distribution and 4 panels introducing ICID were exhibited. This owes much to the efforts of JNCID in corresponding with CO/NCs concerned and compiling the materials, and the support of KCID in preparing and displaying posters, arranging good spaces attracting public attention in both venues of Daegu and Gyeongju, and printing booklets for distribution.

TF-WWF7 Agenda Item 1.7: Participation in WWC BoG meeting held just before WWF7

17. The chair attended the 54th WWC BoG meeting held in Gyeongju on 11 April, 2015 and assisted President Nairizi, in reporting the progress of WSH program together with SG Tyagi and Dr. Yamaoka.

TF-WWF7 Agenda Item 2. Report of ICID contributions to WWF-7

18. The 7th World Water Forum was held at Daegu-Gyeongbuk, Korea from 12 -17 April 2015 and ICID actively contributed to the Forum.

19. Taking opportunity of President Dr. Nairizi's visit to Japan just before WWF7, the chair with the help of JNCID colleagues discussed and finalized ICID's stance and strategy with the President.

20. Due to constraints of ICID capacity, efforts of TF were mainly directed to Thematic processes (and Political process), leaving Regional processes and Science & Technology processes aside.

TF-WWF7 Agenda Item 2.1: Theme 2.1 Water for food

21. Theme 2.1 "Water for Food" was one of the sixteen key priorities of the WWF7. Under the theme, the following five sessions were held.

- Session 2.1.1 Making Every Drop Count: Best Available Technology for Sustainable Water Use in Agriculture Coordinated by University of Nebraska-Lincoln and Daugherty Water for Food Institute (NU/DWFI)
- Session 2.1.2 Water Quality Management for Agriculture and Environment -- Will Clean Water be a Future Luxury? Coordinated by International Food Policy Research Institute (IFPRI) and International Society of Paddy and Water Environment Engineering (PAWEES)
- Session 2.1.3 Modernization of irrigation/drainage schemes for food security, rural prosperity and poverty alleviation Coordinated by ICID and Korean Rural Community Corporation (KRC)
- Session 2.1.4 Adapting to change for sustainable water use in agriculture Coordinated by FAO
- Session 2.1.5 Innovation in Water Smart Agriculture: Working from the Ground up Coordinated by Global Water Initiative (GWI) and Asian Development Bank (ADB)

22. Session 2.1.3 commenced with the opening remarks by President Nairizi, followed with Lessons learnt from WWF6 and Rationale of the session by Dr. Unver and the chair Ota.

23. The first roundtable session discussed issues from internal/external effects, facilitated by Prof. Kyung-Sook Choi, KSAE, KNU. Keynote presentations by World Bank and KRC were made, focusing on Prospects for irrigation modernization in East Asia: principal findings from a review of five national assessments, and past efforts and future plan of Korean irrigation system modernization, respectively. A short presentation on PAWEES' experience was made and the result of the side event on Ensuring Sustainability of Irrigation Facilities after Transfer to WUOs was reported by VP Dr. Gundogdu.

24. The second roundtable session dealt with what to do and viewpoints, facilitated by the chair Ota. Keynote presentations by ADB and ICID (SG Tyagi) were made, focusing on innovations for more food with less water, and ICID's future actions for modernization, respectively. Following four short presentations were made:

- Action plan of modernization in China by PH Prof. Gao
- FAO's irrigation modernization tools and initiatives by Mr. Facon (FAO-RAP)
- Agricultural infrastructures modernization and ICT fusion agricultural water management in Korea by Prof. Jin-Young Choi, KCID, SNU
- Tragsa initiative on water for food and rural prosperity in Latin-America and Africa by Tragsa Group

25. Based on the contributions made as above, the coordinator Mr. Ota and Dr. Sung-hee Lee of KRC wrapped up the session with the following conclusions and recommendations:

- The knowledge/experiences shared in this session could be the basis for considering effective and efficient actions for the future.
- We are at the starting line to act as stakeholders who could play each role for modernization of irrigation schemes.

- Action Monitoring System is a useful tool to monitor actions on website and to make necessary adjustment to actions, if necessary.
- We should further cultivate relationship with farmers groups and other organizations/sectors so that our actions lead to fruitful results.
- We should make use of various opportunities to share information and develop further collaboration with others.

26. As for sessions 2.1.4 and 2.1.5, AFEID and JNCID actively participated in the discussions.

27. Concluding session of 2.1 Water for food was held with the attendance of the coordinators of five sessions under the theme.

28. The chair delivered following three key messages reassuring importance of continuing efforts of Modernization of irrigation schemes for food security, poverty alleviation and rural prosperity:

- To act as the biggest water user to address SDG from a broader perspective (other sectors/global change) at all levels
- To implement effective and efficient modernization focusing not only on structural aspect but also on institutional aspect and
- To act as stakeholders by playing each role for modernization of both mobilizing end users and establishing good communication channel (or relationship) with decision makers.

29. Regarding issues/challenges for future implementation, the chair stressed promotion of multiple use of water services including recycle and reuse, proper utilization of modern technology including ICT and appropriate technology, and monitoring of progress and effects of modernization from both structural and organizational viewpoints and adjustment of the initial program based on the monitoring result.

30. In the discussion, the chair introduced a couple of efforts by ICID in order to carry out IR. One is to set up Working Group on Modernization and Revitalization of Irrigation Schemes which will work out standards and code of practices by WWF8 in collaboration with organizations including those who attended the session 2.1.3. The other is to hold the second world irrigation forum in Chiang Mai, Thailand in 2016 to give opportunity for various sectors and stakeholders to interact with each other for better collaboration.

TF-WWF7 Agenda Item 2.2: Other sessions and events related to ICID

31. In High level Panel on “How can we achieve a water and food secure future?” coordinated by FAO and WWC, President Dr. Nairizi was invited as a panelist and actively contributed to the discussion.

32. Cross-cutting Session on “The Water-Energy-Food Nexus: Are we finally talking?” was coordinated by FAO, IWA and IUCN, and President Nairizi stressed importance of further collaboration with energy sector.

33. President Nairizi made various presentations representing ICID in side events and session. He made a presentation on Perspectives of ICID on Modernization of Irrigation Project for Sustainability in the side event on Ensuring Sustainability of Irrigation Facilities after Transfer to WUOs organized by DSI and TUCID, while he explained the ICID initiative of WSH program in the side event on Communal Water Management for Coherence and Resilience organized by JIRCAS and Session 4.4.1 Fostering water heritage, water values and related cultural expressions coordinated by ICOMOS, The Netherlands.

34. President Nairizi also attended Session 1.4.2 Water storage Infrastructures for UN SDG coordinated by ICOLD and introduced ICID viewpoints in the session theme.

TF-WWF7 Agenda Item 2.3: Poster session

35. After the opening ceremony of the Forum, a tape-cutting ceremony of the Poster Session was held near the entrance of the venue Daegu-EXCO, where many ICID family members from all over the world were present. After the opening remarks of President Nairizi, the past and present office bearers including PH Gao, President Nairizi and SG Tyagi, and government officials joined the tape-cutting ceremony. The human-centered ICID posters were displayed in both venues of Daegu and Gyeongju which drew public attention and the exhibition successfully came to an end on the final day of the Forum. During the exhibition, printed posters, and booklets were distributed.

TF-WWF7 Agenda Item 3. Closure report of the task force

36. TF-WWF7 was constituted in 2012 to guide ICID inputs to WWF7 and has successfully completed its mandate. A Synthesis Report of ICID inputs to WWF7 is being prepared as an outcome of the TF.

In view of successfully completing its mandate, it is recommended to close the Task Force.

TF-WWF7 Agenda Item 4. New mandate for TF-WWF8

37. As an important outcome of the TF-WWF7, ICID has committed to carry out the Implementation Roadmap (IR) of theme 2.1. Therefore, it is recommended that a new Task Force be established for WWF8. Different from the previous Task Forces, the new Task Force should take charge of an additional role to monitor the performance of and push forward the actions mentioned in IR in collaboration with NCs and WGs as well as other relevant organizations including FAO.

The Chair will present the new mandate for the TF-WWF8 together with guidelines for future actions.

TF-WWF7 Agenda Item 5. Any other business

38. The chair would like to express his sincere gratitude to KCID, KRC, JNCID and ICID Central Office for their continued support to him in performing his duties.

39. President Saeed Nairizi and Secretary General Avinash Tyagi express their profuse thanks to Chair Ota for his untiring follow up to complete the mandate of the TF-WWF7, successfully.



NOTES FOR CHAIRPERSON:

1. Draft minutes of this meeting to be submitted to ICID Secretariat at Montpellier (France) after the meeting.
2. Chair to participate and present the WG report to PCTA meeting on 15 October 2015.

**EXCERPTS FROM IMPLEMENTATION ROADMAP (IR) OF
THEME 2.1 WATER FOR FOOD
(ACTIONS OF ICID AND ICID-RELATED ORGANIZATIONS)**

The Objective of the key focus area “Modernization of irrigation schemes” is “By 2030, implement modernization plans for large scale irrigation schemes taking into consideration multiple use of water.”

Actions to be implemented under the objective for the next 3 years are described in the IR.

The main points of the actions of ICID and ICID-related organizations and their details are shown as follows.

ICID

All the actions are basically derived from the ICID regular activities eg. the forthcoming ICID IECs, Europe Regional Conference in France, World Irrigation Forum in Thailand and ICID Congress in Mexico where ICID-related people will get together.

The actions are prepared by arranging the envisaged activities through water lens.

| Theme | Objective | Action | Time Frame | Leading Member |
|-------|-----------|---|-----------------|---|
| 2.1 | 2.1.e (1) | On the occasion of ICID 66th International Executive Council (IEC), establish an ICID Task Force on “Monitoring actions after WWF7” and appoint a coordinator for forwarding actions on irrigation modernization and develop inputs to WWF8. | 10.2015-03.2018 | ICID Permanent Observers (POs) nominated from International Organizations |
| | 2.1.e (2) | In November 2016, on the occasion of 2nd World Irrigation Forum (WIF) and 67th IEC in Thailand, hold a symposium on irrigation modernization in collaboration with other sectors inviting inter-national organizations and representative of other water sectors. | 11.2016 | ICID Permanent Observers (POs) nominated from International Organizations |
| | 2.1.e (3) | In October 2017, on the occasion of ICID 23rd Congress and 68th IEC in Mexico, release an appeal on Modernization irrigation to policy-makers and decision-makers of governments, private sectors and international financial institutions and formulate inputs to the next WWF8 in 2018. | 10.2017-03.2018 | ICID Permanent Observers (POs) nominated from International Organizations |
| | 2.1.e (4) | In October 2015, on the occasion of ICID 66th IEC in France, establish an ICID Working Group on “modernization and revitalization of irrigation schemes” and develop a scoping document. | 10.2015 | ICID Permanent Observers (POs) nominated from International Organizations |
| | 2.1.e (5) | Commence to work together with international organizations and other institutions such as FAO, IWMI, ICARDA, ICBA, IFAD, ICOLD, IHA, ADB, AFDB, IADB, WB, WWC and universities. | 10.2015-10.2021 | ICID Permanent Observers (POs) nominated from International Organizations |
| | 2.1.e (6) | In November 2016, on the occasion of 2nd World Irrigation Forum (WIF) and 67th IEC in Thailand, hold an international workshop on new developments in irrigation modernization technology in collaboration with other sectors. | 11.2016 | ICID Permanent Observers (POs) nominated from International Organizations |

| Theme | Objective | Action | Time Frame | Leading Member |
|-------|------------|--|-----------------|---|
| | 2.1.e (7) | In October 2017, on the occasion of ICID 23rd Congress and 68th IEC in Mexico, discuss standards and codes of practice associated with irrigation design, installation and evaluation to address socio-economic and environmental effects. | 10.2017 | ICID Permanent Observers (POs) nominated from International Organizations |
| | 2.1.e (8) | In 26th ERC, make a report on climate change adaptation through improvement of irrigation performances in Europe to contribute toward the COP 21 in Paris, November-December 2015. | 10.2015-12.2015 | ICID Permanent Observers (POs) nominated from International Organizations |
| | 2.1.e (9) | In ICID 67th IEC, make and disseminate a report on Water Management in a changing world: Role of irrigation for sustainable food production, and Asian case study. | 10.2015-11.2016 | ICID Permanent Observers (POs) nominated from International Organizations |
| | 2.1.e (10) | In ICID 23rd Congress and 68th IEC in Mexico, make and disseminate a report on Modernization irrigation/drainage for a new Green Revolution including application to American continent. | 11.2016-10.2017 | ICID Permanent Observers (POs) nominated from International Organizations |

ICID-RELATED ORGANIZATIONS

Feedbacks from NCs and other ICID-related organizations are listed up in the IR.

Variety of actions including following initiatives is to be taken by various organizations.

- (a) WG-YPF will organize a side event on the theme of: “Modernization of irrigation/drainage schemes” in 2016.
- (b) Tanzanian National Committee will establish National Irrigation Research Center.
- (c) Korean National Committee will contribute to ICID Working Group of modernization.
- (d) Japanese National Committee will hold mentor program for young professionals to transfer knowledge and -experience to young irrigation experts annually.
- (e) PAWEES will hold a special session in PAWEES 2015, 2016 and 2017 conference.
- (f) DSI of Turkey will boost WUOs irrigation management capacity by training programs.

| Theme | Objective | Action | Time Frame | Leading Member |
|-------|------------|--|-----------------|---|
| 2.1 | 2.1.e (11) | Organize a side event on the theme of: “Modernization of irrigation/drainage schemes” | 11.2016 | ICID WG-YPF Interested young experts |
| | 2.1.e (12) | Organize and publish an event on the theme of: Innovations in irrigation/drainage” | 11.2016-10.2017 | ICID WG-YPF Interested young experts |
| | 2.1.e (13) | Create Awareness on irrigation policy, Act and regulations to stakeholders. | 07.2015-12.2016 | Tanzanian National Committee of ICID |
| | 2.1.e (14) | Encourage Tanzanian Government to make decision on necessary investments in irrigation modernization | 01.2016-11.2018 | Tanzanian National Committee of ICID |
| | 2.1.e (15) | Establish National Irrigation Research Center | 07.2015-12.2016 | Tanzanian National Committee of ICID |
| | 2.1.e (16) | Strengthen institutions responsible for irrigation and drainage research and development | 01.2016-06.2018 | Tanzanian National Committee of ICID |

| Theme | Objective | Action | Time Frame | Leading Member |
|-------|------------|---|--------------------------------------|---|
| | 2.1.e (17) | Contribute to ICID Working Group of modernization | 10.2015-10.2017 | Korean National Committee of ICID (KCID) Korea Rural Community Corporation (KRC) |
| | 2.1.e (18) | Encourage modernization for agricultural water efficiency focusing on paddy farming in Asia | 11.2015-03.2018 | KCID KRC |
| | 2.1.e (19) | Organize two symposiums and two meetings gathering INWEPF member in Asian countries to share the outcomes till then. | 05.2016, 11.2016 05.2017, 11.2017 | KCID KRC |
| | 2.1.e (20) | Combine the activity in ICID and in INWEPF. | 11.2015-10.2017 | KCID KRC |
| | 2.1.e (21) | Organize international seminar to share and discuss experience on irrigation modernization in collaboration with International Network for Water and Ecosystem in Paddy Fields (INWEPF) | 04.2015-10.2017 | Japanese National Committee of ICID INWEPF member countries |
| | 2.1.e (22) | Hold mentor program for young professionals to transfer knowledge and experience to young irrigation experts. | 04.2015-10.2017 | Japanese National Committee of ICID INWEPF member countries |
| | 2.1.e (23) | Investigate organization reform for effective agricultural water management. | 05.2015-06.2016 | Korean Society of Agricultural Engineers (KSAE) |
| | 2.1.e (24) | Prepare guidelines and standards for effective organization reform plan. | 05.2016-04.2017 | KSAE |
| | 2.1.e (25) | Disseminate the study result for action. | 05.2017-03.2018 | KSAE |
| | 2.1.e (26) | Hold a special session in PAWEES 2015, 2016 and 2017 conference. | 10.2015, 10.2016, 10.2017 | PAWEES |
| | 2.1.e (27) | Investigate varied financial options for modernization and renovation. | 06.2016-03.2018 | State Hydraulic Works (DSI) TURKEY |
| | 2.1.e (28) | Prepare road map to WUOs for modernization process and afterwards. | 06.2016-03.2018 | State Hydraulic Works (DSI) TURKEY |
| | 2.1.e (29) | Boost WUOs irrigation management capacity by training programs. | 01.2016-03.2018 | State Hydraulic Works (DSI) TURKEY |
| | 2.1.e (30) | Enhance smallholder rural livelihoods through greener agriculture and better water management. | | Ministry of Development GAP Administration Turkey UNDP Turkey |

DAEGU-GYEONGBUK RECOMMENDATIONS TO THE MINISTERS-13 APRIL 2015

(Excerpts)

1. Water for Development and Prosperity

1.1 A continued focus on an integrated approach towards water, food, and energy security considering their interdependence is crucial to effectively cope with the increased food and energy requirements. It is important to align and harmonize policy measures both inside and outside the water domain, especially as related to water use for food and energy production and poverty eradication, enhanced through interdisciplinary research, institutional improvement and technologies.

2. Water for Food

2.1 Structural and nonstructural measures and systems are necessary to effectively manage the rise in demand for water for food production. Appropriate investments are needed for the modernization of existing irrigation schemes and the deployment of improved technologies for recent and future ones to increase food security, rural prosperity and poverty eradication. The recognition of multiple functionality of agricultural water is important for preservation of biodiversity and natural environment. Enhancing understanding of the values and benefits as well as appropriate investments are necessary to secure and develop this multi-functionality.

2.2 It is important to implement approaches to minimize possible adverse impacts of water use for food production on ecosystems including soil degradation and groundwater depletion, through measures such as improving the efficiency of agricultural irrigation systems, efficient use of fertilizers and pesticides and the development and sharing of relevant technologies, knowledge and information.



**AGENDA FOR THE 6TH MEETING OF THE
WORKING GROUP ON WATER FOR BIO-ENERGY AND FOOD (WG-BIO-ENERGY)**

14 October 2015: 11:00-12:30 hours
Montpellier, France

Strategy Theme: Basin

Presented by the Chairman

Year of Establishment: 2010

Completion of the Mandate: 2015

Mandate: Evolve "ICID's position on Water for Bio-Energy and Food"

WG-BIO-ENERGY Agenda Item 1: Action Taken Report by Chair

1. The Chairman may like to present a report on the actions taken on various decisions / proposals of the WG at the last meeting held at Gwangju, Korea.

WG-BIO-ENERGY Agenda Item 2: Review of membership of the Working Group

2. No new nomination was received by the Central Office for the membership of the Working Group. The current membership of the Working Group and their attendance for the last two meetings is given at **Annex 1**.

3. VP Laurie C. Tollefson, Chairman of the WG, has desired to step down as Chairman. WG may elect new Chairman of the new WG.

WG-BIO-ENERGY Agenda Item 3: Publications of the Working Group

4. The Working Group was given extension till 2015 during the last meeting held in 2014 at Gwangju (Korea) to complete its mandate. PCTA recommended that the working group document may be brought out as a Technical Report on 'Water for Bio-Energy and Food' instead of ICID position paper.

5. The Chairman presented a draft technical paper on 'Water for Bio-Energy and Food' during the WG meeting at Gwangju wherein it was agreed that the draft technical paper would be peer reviewed, improved and published in 2015. Chairman was requested that the country reports of the member countries may be appended as part of final document of the WG. Accordingly, the Chairman has agreed to finalize the document of the WG.

6. The Chairman may apprise the members of the WG on further progress.

WG-BIO-ENERGY Agenda Item 4: Closure report and revised mandate of the WG

7. A note on summary of activities of the working group is at **Annex 2**. WG will prepare a closure report giving brief description of how objective and mandate of the WG have been achieved including conclusions, recommendations and way forward.

8. The PCTA in its meeting in 2014 did not endorse view of the WG to close it and suggested to develop a new 'Scoping Document' to reorient its objectives and the scope of activities for discussion during 66th IEC meeting in October 2015 at Montpellier. However, Chairman Tollefson informed his intention to step down and requested to find out a new person for taking up the responsibility of new Chair of the WG and develop the new 'Scoping Document' (SD) so that it can be presented in the next meeting of the group in the Montpellier meeting in 2015.

9. Since VP Laurie C. Tollefson, Chairman of the WG has desired to step down from the WG. ICID Central Office with the support of VPH Dr. Gerhard Backeberg made efforts to identify another person to lead the WG and taking up responsibility of developing the 'Scoping Document' (SD) for new WG. In this regard, Mr. André Roux and Mr. Richard Kunz from South Africa were contacted but they showed their inability to take up the responsibility due to their other pressing engagements. Subsequently on the suggestion of the WG Chair Dr. Fuqiang Tian (China), member of the group, was contacted to explore his willingness to take up the responsibility to lead the WG as well as prepare the new Scoping Document in consultation with other members of the WG. In response, Dr. Tian conveyed his willingness to serve as leading Convener of the group.

10. Draft scoping document of the WG prepared by Dr. Tian is at **Annex 3**. WG Members may discuss and finalise draft scoping document in the meeting.

WG-BIO-ENERGY Agenda Item 5: Any other business



NOTES FOR CHAIRPERSON:

1. Draft minutes of this meeting to be submitted to ICID Secretariat at Montpellier (France) after the meeting.
2. Chair to participate and present the WG report to PCTA meeting on 15 October 2015.

Attendance of Members at 2013 and 2014 Meetings

| Sl. No. | Members | Member from | 2013 | | 2014 | | Remarks |
|---------|---|-------------|----------------|---------------------|------|---------------------|------------------------------------|
| | | | Self | Contributed by mail | Self | Contributed by mail | |
| 1. | Mr. Laurie C. Tollefson, Chairman, (Canada) | 2010 | | • | • | | Desired to step down from WG Chair |
| 2. | Mr. Sanjay Belsare (India) | 2010 | • | | | | No contribution during 2014 |
| 3. | Mr. Uttam Raj Timilsina (Nepal) | 2012 | -- | -- | • | | |
| 4. | Dr. Fuqiang Tian (China) | 2012 | • | -- | • | | |
| 5. | Secretary General, ICID | 2010 | # ¹ | | # | | |



¹ # Through representation

Summary of Activities (2009-2015)

The Task Force was established in 2009 by the Management Board (MB) at its interim meeting held at Istanbul in March 2009 on the sidelines of the 5th World Water Forum. During October 2010 meeting at Yogyakarta (Indonesia) MB nominated Mr. Laurie Tollefson (Canada) as Chairman and Ing. Helvecio Mattana Saturnino (Brazil) and Mr. Sanjay Belsare (India) were accepted as members of the Task Force. TF Chair Mr. Tollefson made a presentation on “Water for energy or food” covering a brief summary of the background work of Dr. Henri Tardieu towards forming the Task Force.

TF in its second meeting at Tehran (Iran) in October 2011 finalised its Terms of Reference (ToR) as development of ‘ICID’s position on Water for Bio-Energy and Food’ taking into account: (a) The possible conflict between food production and the production of bio-fuel crops, (b) the use of agricultural water to produce bio-fuel crops, (c) Rain-fed crops, (d) The use of non-food crops to produce bio-fuels, (e) The use of marginal water/soils for the production of bio-fuel crops, (f) The use of recycled water for the production of bio-fuel crops, (g) the contribution of the production of bio-fuel crops to the local/rural economy, (h) The technical requirements to ensure viable production of bio-fuel crops without government financial support, and (i) The use of agricultural waste for the production of the bio-fuel crops. TF also decided to organize a workshop during the 2012 Adelaide conference to discuss member country policies and developments with possible contribution from India, China, South Africa, USA, Canada, Brazil, Europe and Central Asia.

During third meeting of TF in June 2012 at Adelaide (Australia) Mr. Uttam Raj Timilsina (Nepal) and Dr. Fuqiang Tian (China) were accepted as members of the Task Force. An International Workshop on ‘Country Policies and Developments of Water for Bio-Energy and Food’ was also held on 26 June 2012 where five country presentations from Nepal, India, South Africa and Canada on experiences in biofuel² were received. During 2012 meeting TF agreed to develop structured position paper outlining the country experiences as final output. It was also agreed that Iran Brazil, USA, Australia, China and Great Britain may also be invited during next meeting in Turkey in 2013 for sharing their country experiences.

IEC/PCTA in 2013 meeting in Turkey renamed it as WG-BIO-ENERGY and also approved extension of tenure of the TF by one year i.e. upto 2014. Dr. Fuqiang Tian (China) made a presentation on the status of biofuels in China during the WG meeting held at Turkey in 2013. During its 2013 meeting the Task Force agreed to bring out the ICID position paper in 2014 for discussion in its next meeting in September 2014 at Gwangju (Korea) based on country reports received from Brazil, Canada, China, India, Nepal and South African National Committees and expected from Australia, Brazil, China, Iran and the USA. .

During 2014 meeting at Gwangju (Korea), WG Chair presented a draft technical paper on ‘Water for Bio-Energy and Food’ and recommended to close the WG. Since paper was based on contributions and experiences from limited number of countries, PCTA suggested to consider this as technical report and not as an ICID position paper. Further, PCTA did not agree to the proposal of the WG to close it but recommended that a new Scoping Document be developed to reorient its objectives and the scope of its activities keeping in view the importance of the subject and decided to discuss future course of action during the 66th IEC Meeting in 2015.



² Five presentations were ‘Nepal Non-conventional method of irrigation for food security’ by Mr. Bashu Dev Lohanee (Nepal); ‘The scope on production and usage of biofuels in Nepal’ by Mr. Uttam Raj Timilsina (Nepal); ‘Country policies and developments of water for bioenergy and food - India’ by Mr. Amit Dutta (India); ‘Crop production and water use for biofuels in South Africa’ by Mr. André Roux (South Africa); and ‘Biofuel production in Canada and opportunities under irrigated cropping systems’ by Mr. Laurie Tollefson (Canada).

WORKING GROUP ON WATER FOR BIO-FUEL AND FOOD (WG-BIO-ENERGY)

DRAFT SCOPING DOCUMENT

1. Background

- 1.1 Rising energy prices, geopolitics and concerns over the impact of greenhouse gas emissions on climate change are increasing the demand for biofuel production. Over the last two decades, biofuel production has increased dramatically. For example, bioethanol output experienced an increase from 16.9 to 72.0 billion liters while biodiesel grew from 0.8 to 14.7 billion liters between 2000 and 2009. At present biofuel production is estimated at 35 billion liters, accounting only for a small part (2%) of the 1200 billion liters of annual gasoline consumption worldwide. But the contribution of biofuels to energy supply is expected to grow fast with beneficial impacts including reductions in greenhouse gasses, improved energy security and new income sources for farmers. However, biofuel production and use have both positive and negative environmental and socio-economic consequences. Specifically, biomass production for energy will compete with food crops for scarce land and water resources, which is already a major constraint on agricultural production in many parts of the world.
- 1.2 With the emerging new challenges for agricultural water management, ICID established a Task Force (TF-BIO-ENERGY) in 2010 headed by Dr. Laurie C. Tollefson to evolve its position on Water for Bio-Energy and Food³. The task force was renamed as WG BIO-ENERGY at the 64th IEC meeting, Mardin, 2013. The chair and other core members completed a technical report with contributions from all group members at the 22nd ICID Congress and 65th IEC meeting, Gwangju, 2014. The report presents a holistic review of the state-of-the-art of bio-energy production and policies in different countries, the intertwined linkage among bio-energy, water, and food, a summary of the perspectives from all contributing country members. In view of the importance of the bio-fuels in reducing emission of green-house gases, the members of WG BIO-ENERGY and PCTA felt the need to develop an awareness and understanding among the national committees regarding bio-energy issues so that they are able to better understand various facets of bio-energy production and their impacts on the water availability for food production and ensure their participation in the deliberations on the issue of bio-energy within their country and contribution in the policy dialogues. Accordingly, continuation of WG was recommended and WG was requested to develop a new Scoping Document to reorient its objectives and the scope of its activities.

2. Objective and Mandate

2.1 Relevance of the Working Group (WG)

2.1.1 The expansion and intensification of biofuel production is growing fast, which could add to existing pressures on land and water management. The technology of biofuel production is also developing fast, which will recast the nexus among biofuel, water and food. As stated above, therefore, the objective of the working group is to stimulate discussion and raise awareness of water and food security issues associated with biofuel. Specifically, the relevance and mandate of the WG can be specified as follows:

- (a) To enhance understanding of the nexus between bio-energy, water and food production/food security among the ICID community;
- (b) To share the information about recent progress and future prediction of biofuel production and use;
- (c) To explore and analyze the implications of existing and new biofuel technologies on water resources availability, food production and rural development;
- (d) To enhance discussions on appropriate promotion policies for biofuel production and its use with due considerations to the countries need to balance food and energy, urban and rural, carbon and economy, etc.;
- (e) To join the international dialog on the nexus among biofuel, water, and food.

2.2 Relevance of the Working Group to the scope of the Thematic Area

2.2.1 For the relevance of the WG to the scope of the Thematic Area, the same argumentation is applicable as shown under the relevance. One of key objective is to better understand nexus of water-food and energy including implications of bio-fuel on diversion of land and water from food production to bio fuel production in the context of food security.

³ Task force is completing its mandate with extended period in 2015.

2.3 Existing gap that the Working Group is expected to fill

2.3.1 ICID working group (WG-Crop) has mandate to investigate use of energy crops for bio-fuel production but there is a gap in dealing with nexus of water-food-energy specifically implication of diversion of lands and water for bio-fuel production on food security. This group is proposed to fill this gap.

3. State of knowledge on the topic

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

3.1.1 There are several other International Organisations that have programs and activities on this topic. This especially concerns the:

- (a) Food and Agriculture Organisation of the United Nations (FAO);
- (b) International Fund for Agricultural Development (IFAD);
- (c) United Nations Environment Programme (UNEP);
- (d) World Agroforestry Centre (ICRAF);
- (e) Organisation for Economic Co-operation and Development (OECD)
- (f) Professional international associations, like: International Petroleum Industry Environmental Conservation Association (IPIECA), etc.

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

3.2.1 The specific niche that this WG can fill on the issue highlighted under “Scope” can be formulated as follows:

- (a) to exchange information and network on the issues in order to be up to date with new developments, methods and approaches;
- (b) to review and prepare a condensed overview of existing literature and other relevant publications on the issues;
- (c) to prepare and present reports and/or case studies on recent development in the countries that are represented in the WG;
- (d) to organise international workshops, seminars or symposia on the issue;

3.2.2 This can be the basis to present recommendations and if mature a position paper on key issues of bio fuel production and its impact on food security in different countries and paper on the topic for publication in *Irrigation and Drainage (IRD)*.

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

3.3.1 International Organisations can contribute to the activities of the WG by nominating Permanent Observers (PO). On the other hand presentations of the work and achievements of the WG can be presented at the occasion of events organized by International Organisations.

4. Work Plan

4.1 *Scope*

4.1.1 The working group is expected to investigate, analyze, and disseminate information on new developments and to formulate recommendations with respect to:

- (a) the assessment, monitoring and predictions of impacts of biofuel production and usage policies on agriculture water management,
- (b) the appropriate national policies for biofuel effecting agriculture water management in different countries,
- (c) the strategies which agriculture and irrigation authorities can adopt to support biofuel promotion policies of their government,
- (d) the international dialogue on biofuel and agricultural water management between regions and countries.

4.2 *Target Audience*

4.2.1 The target audience for this working group will be the National Committees and its members who might be called upon by their governments to advise on various facets of biofuel policies, its implications on water resources management, particularly on agriculture water management, food production, and setting up regulatory mechanism.

4.3 *Outputs*

4.3.1 The following outputs are expected from this working group:

- (a) sharing knowledge and experiences by representatives of National Committees, and disseminating this knowledge within their country;
- (b) presenting condensed overview of national policies and relevant publications on the topic;
- (c) organizing or co-organizing at least one workshop, seminar or symposium in every two years at occasion of an international ICID meeting; and
- (d) distributing ICID experiences in practice for countermeasures for water and land competition from biofuel production.

4.4 *Timelines*

4.4.1 Biofuel production is in a fast development and the nexus among biofuel, water and food is rather complex. Therefore, it is recommended that the term of this working group be set at 4 years. The timeline would have to be based on the scope of work and the expected outputs. Details of the timeline would have to be formulated and refined at the meeting of the working group.

4.5 *Collaborators and dissemination strategy*

4.5.1 The working group would have to base its activities on an open attitude with a clear scope for invitation of outsiders that are interested in the topic.

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

6. **Core Group**

6.1 The draft has been circulated among the members of WG-BIO-ENERGY. Comments received from the members of the WG have been included in this scoping document. The Core Group consists of:

Convenor: Fuqiang Tian
Member: Laurie C. Tollefson

7. **References**

- (i) D Rajagopal, S E Sexton, D Roland-Holst and D Zilberman. Challenge of biofuel: filling the tank without emptying the stomach? *Environ. Res. Lett.* 2 (2007) 044004 (9pp). doi:10.1088/1748-9326/2/4/044004
- (ii) Giovanni Sorda, Martin Banse, Claudia Kemfert. An overview of biofuel policies across the world. *Energy Policy* 38 (2010) 6977–6988.
- (iii) Charlotte de Fraiture, Mark Giordano and Yongsong Liao. Biofuels and implications for agricultural water use: blue impacts of green energy. *Water Policy* 10 Supplement 1 (2008) 67–81.
- (iv) UNEP (2011), “The bioenergy and water nexus’ <http://www.unep.fr/energy/bioenergy>
- (v) UNEP (2011), “Water and bioenergy”, Issue Paper No 2, Bioenergy Issue Series, <http://www.unep.fr>
- (vi) Göran Berndes, (2008), “Water demand for global bioenergy production: trends, risks and opportunities” Göteborg, Berlin 2008. http://www.wbgu.de/wbgu_jg2008_ex02.pdf

APPENDIX XXI [PCTA Item 5.5]

**AGENDA FOR THE 10TH MEETING OF THE
WORKING GROUP ON GLOBAL CLIMATE CHANGE AND
AGRICULTURAL WATER MANAGEMENT (WG-CLIMATE)**

14 October 2015, 14.00-15.30 hours
Montpellier, France

Strategy Theme: Basin

Presented by the Chairman

Year of Establishment: 2005

Completion of the Mandate: 2015

Mandate: (i) To review the progression of and predictions for Global Climate Change (GCC) and climate variability, (ii) To explore and analyze the medium-term implications of climate change and climate variability for irrigation, drainage, and flood control, (iii) To stimulate discussion and raise awareness of water-related GCC issues within the ICID family, (iv) To stimulate discussion at national scales among scientists, policy makers, and, through the media, the general public on GCC and water, and (v) To join the international dialogue on GCC and water.

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

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

1. The Chair may like to present report on the actions taken on the decisions and proposals of the working group at its last meeting held at Gwangju.

WG-CLIMATE Agenda Item 2: Review of the membership of the working group

2. In order to increase the efficiency and functioning of the Working Group during annual face to face meeting and avoid spending a lot of time on administrative matters, MB has decided that the admission of new members or discontinuation of the membership of the group will be dealt by Chairman in consultation with Vice Chair, Secretary and ICID Central Office prior to the meeting itself through emails/ web conference.

3. Nominations have been received from the National Committees of Egypt, Iran, and USA for the membership of the new WG. In July 2015, Chinese National Committee (CNCID) also confirmed the nomination of Dr. Tian Fuqiang for the membership of the group as a replacement of Dr. Heping HU. Mr. Riaz Ahmad Khan (Pakistan) was accepted as Provisional Member at Gwangju in 2014, however during last one year, no correspondence/ contribution has been received from him. The Irrigation and Water Forum/ British National Committee of ICID (IWF/ICID.UK) has nominated Dr. Guy Jobbins for the membership of the group.

SUPP.: The Finland National Committee (FINCID) has nominated Mr. Mika Turunen for the membership of the WG.

Jain Irrigation Systems Limited (JISL) has recently joined ICID as Direct Member and has nominated Dr. S.K. Deshmukh (India) for the membership of the group. CV is yet to be received.

4. Accordingly, Chairman in consultation with Vice Chair, Secretary of the WG and the Central Office have updated membership of the WG as given at **Annex 1** (see the electronic version for the latest list). Any new nominations for the membership received during the meeting will be dealt suitably after the meeting.

WG-CLIMATE Agenda Item 3: Potential collaboration with WMO on Global Framework for Climate Services

5. The WG may review the collaborated works of WMO and ICID based on the MOU between both organizations signed in 2013, which has a view to enhance WMO's ability to appropriately make use of outreach, capabilities and expertise of ICID in the areas of flood/ drought/ irrigation management by the irrigation and drainage community of the world.

6. As a part of continued cooperation between ICID and WMO stakeholders in adapting to climate change in agricultural water management, the second Climate Services User Forums (CSUFs)¹ for Water Sector in South Asia was jointly organized by ICID and WMO at Dhaka, Bangladesh in April 2015 with focus on Extended Range of Flood Forecasting. About 40 participants participated in the two day Forum which included 20 participants from Bangladesh, Bhutan, India, Maldives, Myanmar, Nepal, Pakistan and Sri Lanka belonging to National Meteorological Services (NMSs), Irrigation Authorities, Water and Sanitation Departments, Agriculture Departments etc. and participants from WMO and its Commission for Hydrology, ICID, IWMI, Bureau of Meteorology (BoM) of Australia, SAARC Meteorological Research Centre (Dhaka), GWP, RIMES (Thailand), IWM & BUET (Dhaka), IITM (India) and ICIMOD (Kathmandu, Nepal). Deliberations during forum covered issues and areas such as regional climate outlook for 2015, possibility of evolution of an El Niño event during the summer monsoon season, flood forecasting, reservoir operation, drought monitoring etc. The forum was able to successfully improve the climate literacy of the water user community to generate opportunities for a better use of climate information services and was useful in continuing dialogue between user agencies and climate service providers. The Forum identified the following mission of the future activities in the South Asian region:

“to improve agriculture practices and improve reservoir operations through better use of climate information and services already available and leverage the global information through the regional arrangements.”

7. Forum identified that increased dialogue and joint action can help maximize the usefulness of climate services and help develop new and improved applications of climate information for the water sector. At the regional level institutions like ICID could help build capacities to operationalize technological advances and facilitate implementation of pilot projects identified to undertake joint study involving institutions which are providing the regional and national climate information on one hand and the user sector professionals on the other. Forum stressed need to accelerate interactions at the regional and national levels through collaborative projects and proposed following activities that would lend themselves for the development of pilot projects in the South Asian region (i) Reservoir operations taking into account the dynamical climate prediction products from sub-seasonal to longer time scales for a few selected river basins- Mahaweli basin in Sri Lanka, and Tungabhadra and Damodar basins in India, and (ii) Development of Extended Range Hydrologic Prediction approaches for the Ganges in Bangladesh. Forum agreed that ICID and Bureau of Meteorology (BoM), Australia would work further, in close consultation with WMO and other international as well as national stakeholders, to develop a detailed proposal for the implementation of these joint pilot projects in a phased manner.

8. WMO is also supporting participation of 5 Young Professional from developing countries to the Euromediterranean Regional Conference, the International Executive Council, and the Training Workshop for Young Professionals on Integrated Flood Management to be held at Montpellier, France in October 2015.

9. To follow up the implemented meetings between ICID and WMO and other related activities, WG will discuss the possible collaboration with WMO in other regions of the world in order to design and develop roadmap for future. Further, to share the most current international context of climate service, a representative of WMO is invited to deliver a talk about the on-going WMO's actions for the Global Framework during WG meeting.

WG-CLIMATE Agenda Item 4: Follow-up on the outcome of the Congress Q.58

10. The Question 58 of the 22nd ICID Congress held at Gwangju in 2014 was “How irrigation and drainage play an important role in climate change adaptation”, and almost all papers presented under this question might contribute to cover the current important agricultural, irrigation and drainage issues with the impending climate change. Dr. Watanabe, the chair of the WG, acted as the General Rapporteur for Question 58.

11. The outcomes of the Congress Question 58 are to be reviewed based on the General Report and the wrap-up of the General Rapporteur, for identifying the future role and activities of the WG.

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

12. At the 65th IEC, it was decided that ICID Central Office bring out an online version of the MTD and make it available through ICID website. In this connection, Central Office is collecting the terms available with different national committees in their respective languages, based on 2010 version of MTD. PCTA would be discussing the issue of revision of the MTD, pruning down the chapters and concentrating on the chapters that are within the expert purview of ICID. [Refer **Agenda Item 4 of PCTA**]

¹ The purpose of the Water Users Forum is to bring better synergy between water community and the climate community within the South Asian countries with the long-term objective of making best use of the climate services and information provided through South Asian Climate Outlook Forum (SASCOF) efforts. The first CSUF was held on 23-25 April 2014 at Pune, India, where a number of water managers from irrigation departments of the South Asian countries, including member countries like Bangladesh, Nepal, Sri Lanka and Pakistan and associate members like Afghanistan, participated.

13. PCTA would require a feedback from each of the WGs as to how they plan to review / update the terms that fall within their respective scope of activities. WGs may discuss this issue and provide the required input to PCTA. To achieve this goal, it is proposed to undertake the concerned terms by the respective Working Group depending on their domain of expertise suggesting changes / modification and addition of new terms, contributing pictures, links and videos related to respective term.

WG-CLIMATE Agenda Item 6: Website of the working group

14. In order to update website of WG (<http://wg-climate.icidonline.org/>) by ICID Central Office, members are requested to provide additional material/ documents/ reports/ articles for its posting on the group's website.

WG-CLIMATE Agenda Item 7: Closure report and revised mandate of the WG

15. As the WG has completed its tenure in 2014, the WG was granted one-year extension of the mandate and WG was requested to prepare the Scoping Document (SD) to extend the tenure of the WG with revised mandate. WG nominated Prof. Watanabe as the Chair, Prof. Wu as the Vice Chair, and Dr. Tian as the Secretary of the core group to prepare draft Scoping Document for seeking further extension. The draft SD prepared by the Core Group was circulated to all members of the WG in May 2015 for providing comments and suggestions by end of June 2015. Since no comments were received from the members, the SD has been sent to all National Committees in July 2015 for their comments/suggestions, if any as well as to propose nominations for the new WG. Draft scoping document for new WG is at **Annex 2**.

16. The closure report for the previous tenure of the working group and the revised scope for the reconstituted WG with new mandate would be discussed and finalized in the meeting. The group will firm up the final SD during the meeting and forward it to PCTA/ IEC for its approval of establishing the new WG.

WG-CLIMATE Agenda Item 8: Any other business

17. The new members are requested to make a short presentation about their activity plan, R&D in the member country and on other relevant topics.



NOTES FOR CHAIRPERSON:

1. Draft minutes of this meeting to be submitted to ICID Secretariat at Montpellier (France) after the meeting.
2. Chair to participate and present the WG report to PCTA meeting on 15 October 2015.

A. Members and their attendance at 2013 and 2014 Meetings

| Sl. No. | Members | Member from (Year) | 2013 | | 2014 | | Remarks |
|--------------------------------------|--|--------------------|------|---------------------|------|---------------------|-------------------------------------|
| | | | Self | Contributed by mail | Self | Contributed by mail | |
| 1. | Dr. Tsugihiko Watanabe, Chairman, 2014 (Japan) | 2006 | • | | • | | |
| 2. | Dr. Ray Shyan Wu, Vice Chairman, 2014 (Chinese Taipei) | 2009 | • | | • | | |
| 3. | Dr. Tian Fuqiang, Secretary, (China) | 2014 | | | | • | |
| 4. | Prof. Sue Walker (South Africa) | 2009 | • | | | | |
| 5. | Dr. Roestam Sjarief (Indonesia) | 2010 | • | | | | |
| 6. | Dr. Juan A. Rodriguez-Diaz (Spain) | 2010 | | | | • | |
| 7. | Mr. Mehmet Sait Tahmiscioglu (Turkey) | 2012 | • | | | | |
| 8. | Prof. Dr. Choi, Jin-Yong (Korea) | 2013 | • | | • | | |
| 9. | Engr. Riaz Ahmad Khan (Pakistan) | 2014 | | | | | No contribution since Korea meeting |
| 10. | Secretary General, ICID | | | | | | |
| Observers/Permanent observers | | | | | | | |
| (i) | WMO representative | | | | • | | |
| (ii) | IWMI Representative | | | | | | |
| (iii) | FAO Representative | | • | | | | |

B. New nominations received from the National Committees/ Direct Member

| Sl. No. | Name | Country | Remarks |
|---------|---|---------|---|
| (1) | Dr. Nozar Ghahreman | Iran | Recommended by Chair subject to his presence or else Provisional Member |
| (2) | Dr. Waleed Hassan M. Abou El Hassan | Egypt | Recommended by Chair subject to his presence or else Provisional Member |
| (3) | Mr. Michael Davidson | USA | Recommended by Chair subject to his presence or else Provisional Member |
| (4) | Dr. Guy Jobbins | UK | Recommended by Chair subject to his presence or else Provisional Member |
| (5) | Mr. Mika Turunen | Finland | Recommended by Chair subject to his presence or else Provisional Member |
| (6) | Dr. S.K. Deshmukh – Direct Member, JISL | India | Recommended by Chair subject to his presence or else Provisional Member |

WORKING GROUP ON CLIMATE CHANGE AND AGRICULTURAL WATER MANAGEMENT

DRAFT SCOPING DOCUMENT

(Prepared by Tsugihiko Watanabe and Ray-Shyan Wu in consultation with Central Office and with contributions as received by e-mail from various specialists)

1. Introduction

- 1.1 The main theme of the ICID's 22nd Congress held in Korea, September 2014 was "Securing Water for Food and Rural Community under Climate Change". As it shows explicitly, the climate change is one of the most serious and urgent issue for human society and global environment, and the theme was organized in the context that improving irrigation and drainage systems and rural development will play a key role in achieving the rural water and food security under impending climate change, especially in the developing countries. Under this theme, two congress questions were raised and the one related to climate change was "How Irrigation and Drainage play an important role in Climate Change Adaptation?" with three sub-questions: 1) Understanding Impacts of Climate Change on Land and Water Use, 2) Revisiting Design and Operation Criteria for Irrigation and Drainage Facilities, and 3) Managing Frequent Floods and Droughts.
- 1.2 The Congress theme highlighted that the climate change needs to be recognized as an added stress on the increasingly uncertain complex and interlinked issues of rural development and food security under demographic changes, overstretched environmental and natural resources. As we still lack sufficient knowledge to better understand what is going on and what can be predicted in climate change with reasonable accuracy and also cannot wait till whole understandings of the future climate change and its impacts are known so challenges due to the climate change should be considered as another driving force to improve the irrigation and drainage system. It is therefore necessary to factor known impacts of climate change in all processes of planning, design, implementation, operation, maintenance and management of the irrigation and drainage activities. In this context, we refer to the 5th Assessment Report of IPCC which stresses on an urgent development of and efficient implementation of adaption measures based on present available information, including infrastructure improvement and institutional reorganization, design criteria revision and management strategy for the extreme events.
- 1.3 Even though many researches have been carried out all over the world with number of useful outcomes in terms of better availability of information related to climate, state-of-the-art techniques to evaluate and predict impacts of climate change including development of adaptation measures, it is felt that the challenges due to climate change in the irrigation, drainage and other relevant sectors would be long lasting which calls for focused and concerted efforts from all stakeholders.
- 1.4 With these situation and understandings on climate change and increased role of irrigation and drainage in achieving food security in the present situation, ICID as the platform for promoting the irrigation and drainage sector is under obligation to organize a semi-permanent or standing working group on climate change for the coming decades. ICID Working Group on Climate Change and Agricultural Water Management (hereafter referred as "Working Group" or "WG"), which was established in 2005 and has also performed well for the past decade, needs to be continued for some more years with renewed objectives and mandate including focussed wok plan.

2. History of the Working Group

2.1 *Establishment and mandates*

- 2.1.1 The Working Group was established in 2005 with the name of "WG on Global Climate Change and Irrigation", by well-designed coordination of a devoted leader Dr. Mark Svendsen. In 2007, it was renamed as "WG on Climate Change and Agricultural Water Management" with refining the target area expanding from just "irrigation" to the wider scope "water management".
- 2.1.2 The establishment was based on the recognition that the looming climate change and its likely impacts on water management for agriculture require cooperation cutting across institutional and disciplinary boundaries. This was aiming at developing arena where relevant players or stakeholders may communicate and collaborate for intensification of data collection networks, research into methodologies to downscale the climate impacts on water and agriculture, review of the operation of storage systems, enhancing soil water storage with water harvesting structures, and sharing knowledge and information.

- 2.1.3 The WG set up the mandate to review the progression of and predictions for Global Climate Change (GCC) and climate variability and to explore and analyse the medium-term implications of climate change and climate variability for irrigation, drainage, and flood management. It stimulates discussion and raises awareness of water related GCC issues within the ICID network and at national scales among scientists and policy makers. The WG collaborates with global partners like UN System wide Global Framework for Climate Services (GFCS) under the leadership of WMO.
- 2.1.4 Formal mandates of WG set up in 2005:
- (a) To review the progression of and predictions for Global Climate Change (GCC) and climate variability,
 - (b) To explore and analyze the medium-term implications of climate change and climate variability for irrigation, drainage, and flood control,
 - (c) To stimulate discussion and raise awareness of water-related GCC issues within the ICID family,
 - (d) To stimulate discussion at national scales among scientists, policy makers, and, through the media, the general public on GCC and water, and
 - (e) To join the international dialogue on GCC and water
- 2.1.5 The WG is consisting of the persons who are recommended by the national committee of ICID member country and approved by the WG, and permanent observers. At the occasion of the WG meeting in the IEC in October 2015, the countries of members include Japan (Chairperson), Chinese Taipei (vice-chairperson), China (Secretary), South Africa, Indonesia, Spain, Turkey, and Korea. The Secretary General of ICID is a member, and Representatives of WMO, IFPRI, IWMI and FAO are the permanent observers.
- 2.2 *Activities and outcomes*
- 2.2.1 The WG has organized the workshop on climate change almost every year taking the opportunity of IEC of ICID. In the workshop, activities and outcomes of the WG members and observers were presented and shared for their further challenges.
- 2.2.2 Especially, in the First World Irrigation Forum, held in Mardin, Turkey in 2013, the WG co-organized the Workshop “Management of Water, Crops and Soils under Climate Change”. There, seventeen contributions both oral and posters were presented. The main outcomes of the workshop include; 1) It was obvious from the presentations with global evidence that the climate change is a fact not a fiction and the scepticism about the climate change is reversing to believing in, 2) The current extreme weather events of drought, floods, hurricanes, tornados, and cyclones are becoming regular visitors more than ever, and 3) In agriculture industry, the impact is visible through the change in sowing and harvest dates, length of growing season, water availability for irrigation, evapo-transpiration and the shift in agro-climatic zones.
- 2.2.3 The papers presented covered a wide range of climate change impact and offered solution to counter the impact through adaptation and mitigation measures. These covered the introduction of new water management techniques (e.g. SRI for Paddy Rice), new drought tolerant crops (e.g. Bambara groundnut), reducing greenhouse gases (NH₄, N₂O) through lowering the groundwater table, and reservoir management. The results also indicated that farmers are now familiar with the changing climate and are adjusting their activities accordingly. (Source: Summary Report of First World Irrigation Forum)
- 2.2.4 The activities and outcomes of the WG was an essential part of the background for setting up the main theme of the ICID 22nd Congress mentioned above. Based on these, Dr. T. Watanabe, serving as the vice chair of the WG at that time, was designated as the general reporter for that theme.

3. Proposal for reconstitution of WG

3.1 Objectives

- 3.1.1 Based on the current climate change issue and challenges and the new role ICID is to play in sustainable development, review of past activities and outcomes of the WG, the mandate, scope and timelines for reconstitution of WG are defined as follows:

3.2 Main Objectives

- 3.2.1 The original objectives of the WG are still relevant and to be carried over, which is to prepare the arena and develop network for cooperation cutting across institutional and disciplinary boundaries. Basically, it include sharing the useful information, applicable methods, and case studies (both successful and unsuccessful).

3.2.2 Since the future projection of climate change is becoming much more precise and reliable with higher temporal and spatial resolution and development of models for assessing the impacts and designing adaptation measures are also being accelerated, therefore at this stage, focus should be on information exchange and interconnectedness development in the community, compilation and archiving of experiences and case studies on climate change impact assessment and adaptation strategy from all over the world. Another issue which needs consideration is how we can develop an integrated approach to address challenges of complex climate change and climate variability as understanding of climate change issues, processes, assessment and adaptation planning at local scale is very limited. Therefore, one of the objectives of the WG should be to develop more understanding in an integrated manner with focus on inter-sectoral and trans-boundary approach.

3.3 *Updated Mandates*

3.3.1 Based on the main objectives to be established, the updated mandates for reconstituted WG are as follows:

- (a) To share the information about future prediction of the global and regional climate change and climate variability,
- (b) To explore and analyze 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 academicians, 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.

3.4 *Relevance of the Working Group*

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

- (a) the topic of climate change and water management is relevant to the vision and mission of ICID and of higher interest for its members, especially in the developing countries that are sensitive and vulnerable to climate change;
- (b) the WG is expected to contribute to effective implementation of the strategy theme Basin and to other strategy themes for that matter;
- (c) it may be expected that, in the coming period, climate change impact and adaptation strategies are factored in all processes and activities of irrigation and drainage.

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

3.5.1 Almost all other ICID Working Groups and Task Forces have a related scope of climate change, especially WG-CROP, WG-ON-FARM, WG-SDTA, WG-ENV, WG-CAFM, WG-DROUGHT, and WG-BIO-ENERGY. The Working Group will coordinate these groups for sharing information, collaborating works and enhancing discussion about climate change as cross cutting issue.

3.6 *Expected collaboration with other International Organisations*

3.6.1 International Organisations (ADB, FAO, IFPRI, IWMI, WB, WMO etc.) can contribute to the activities of the WG as Permanent Observers (PO). On the other hand presentations on the works and achievements of the WG could be presented at the occasion of events organized by International Organisations.

4. **Work Plan**

4.1 *Scope*

4.1.1 The WG is expected to investigate, analyse, and disseminate information on new developments and to formulate recommendations with respect to:

- (a) the progression of and predictions for climate change and climate variability
- (b) the medium-term adaptation strategies of climate change and climate variability for irrigation, drainage, and flood control

- (c) reservoir operation policies to develop adaptation strategies to reduce impacts of climate change,
- (d) the water environment issues relating to climate change within the scope of agricultural water management activities within ICID,
- (e) the international dialogue on climate change and agricultural water environment between regions and countries

4.1.2 With respect to the last item, interesting works have already been done in the ASRWG since 2012. Similar collaborated works with the WG of other regions are expected to be developed

4.2 *Target audience*

4.2.1 The target audience for this working group will be meteorologists, farmers, managers of irrigation schemes, researchers, consultants, government officials and staff of international organisations on the topic.

4.3 *Outputs*

4.3.1 The following outputs can be expected from this WG:

- (a) sharing knowledge and experiences with and by the representatives of NCs, and disseminating this knowledge within their country;
- (b) presenting condensed overview of existing key reports (IPCC, UNESCO, WMO, etc.), national adaptation guidelines and other relevant publications on the topic;
- (c) organizing or co-organizing at least one workshop, seminar or symposium in every two years at occasion of an international ICID meeting; and
- (d) distributing ICID experiences in practice for adaptation to climate change in irrigation, drainage and flood sector

4.4 *Timelines*

4.4.1 While climate change is a very important and complex issue to deal with in the management of agricultural water sectors, it is recommended that the term of this WG will be set at six years. The timeline would have to be based on the scope of work and the expected outputs. Details of the timeline would have to be formulated and refined at the meetings of the WG.

4.5 *Collaborators and dissemination strategy*

4.5.1 The WG would have to base its activities with an open attitude and clear scope for invitation of interested outsiders.

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

5. **Core Group**

5.1 This draft has been circulated among the members of WG-climate. Comments received from the members of the WG have been included in this scoping document. The Core Group consists of:

Convenor: Tsugihiko Watanabe
Members: Ray-Shyan Wu
Fuqiang Tian



**AGENDA FOR THE 7TH MEETING OF THE
WORKING GROUP ON ENVIRONMENT (WG-ENV)**

14 October 2015, 14.00-15.30 hours
Montpellier, France

Strategy Theme: Basin

Presented by the Chairman

Year of Establishment: 2008

Completion of the Mandate: 2015

Mandate: To provide guidance to policy makers, planners, designers, and managers in the irrigation and drainage sector on the environmental aspects of drainage and irrigation systems. The environmental aspects are physical, chemical, ecological, socio-economic and cultural, as well as concerns to the effects on climate and human health. By looking at environmental aspects, the working group will aim for the management of a sustainable environment, maximizing positive and minimizing adverse effects of irrigation and drainage systems.

Website: <http://wg-env.icidonline.org/>

WG-ENV Agenda Item 1: Action taken report by Chair

1. Chair will present a summary report regarding actions taken on the decisions and suggestions made during the last meeting held at Gwangju, Korea.

WG-ENV Agenda Item 2: Membership of the working group

2. In order to increase the efficiency and functioning of the Working Group during annual face to face meeting and avoid spending a lot of time on administrative matters, Management Board (MB) has decided that the admission of new members or discontinuation of the membership of the group will be dealt by Chairman in consultation with Vice Chair, Secretary and ICID Central Office prior to the meeting itself through emails/ web conference.

3. During the WebEx meeting held on 19 March 2015, the nominations of Dr. Muhammad Basharat Chaudhry (Pakistan) and Dr. Fuqiang Tian (China) were discussed. In April 2015, the Netherlands National Committee (NETHCID) nominated Prof. Charlotte de Fraiture for the membership of the group. Chair recommends their memberships and request them to actively participate and contribute to the new mandate of the WG. Nomination of Mohammad Samiul Ahsan Talucder - Direct Member (Bangladesh) has also been received for the membership of the group.

SUPP.: Finland National Committee (FINCID) has nominated Ms. Seija Virtanen in place of Mr. Osmo Purhonen for the membership of the group.

4. Accordingly, the updated membership of the WG based on the nominations received as of now can be seen at **Annex 1** (see the electronic version for the latest list). Any new nominations for the membership received during the meeting will be dealt suitably after the meeting.

5. Chair Dr. Sylvain Perret proposes to step down, after 5 years in charge and due to his new demanding position at CIRAD, after Montpellier meetings. The idea is also to give a chance to new ideas and to generate a renewed momentum and dynamics in WG-ENV. Interested members may step forward to take up the responsibility and lead the WG as its Chair.

WG-ENV Agenda Item 3: WebEx meeting of the group

6. As a new initiative, at the 65th IEC meeting held at Gwangju, Korea in September 2014, it was decided that the Working Groups should organize a WebEx meeting or a video-conference in between two face to face meetings of the IEC in order to enable the group to take a view of the progress made on their activities and at the same time allow contributions from those members who are unable to attend the face to face meetings.

7. Accordingly, the WG organized its first ever WebEx meeting on 19 March 2015 wherein ten members participated and discussed various activities of the group viz. membership, publication of WG document on LCA, preparation of Scoping Document for new WG, contribution to international workshop, website updating etc. The Chair opined that such meetings enabled the group to take a view of the progress made of their activities and at the same time allow contributions from those members who were unable to attend the meetings.

Chair may apprise the group of the outcomes.

WG-ENV Agenda Item 4: Environmental aspects of irrigation and drainage projects: Management of a sustainable environment (maximizing positive and minimizing adverse effects of irrigation and drainage systems)

8. Chair Dr. Sylvain Perret circulated the draft report on “*Assessing the environmental impacts and the sustainability of irrigation and drainage systems: the potential contribution of Life Cycle Analysis*” to all members and invited their comments & contributions. The draft report is authored by Chairperson, Vice-Chairperson, Secretary, and Dr Young from Korea. The table of contents of the report includes: Executive summary, Introduction, What is LCA? Presentation of case studies, and summary. The case studies originate from Thailand and Japan (Rice), South Africa (Sugarcane), Pakistan (Cotton), Korea (water infrastructures).

9. The WG document was earlier essentially a compilation of papers but now they have been converted to chapter format and pictures inserted, where possible. The final draft will be presented during the meeting.

Chair may like to apprise the group about further progress.

WG-ENV Agenda Item 5: Publications of the working group

10. The final draft of the WG document as referred in Item 4 will be peer reviewed by experts from outside the WG before its printing and dissemination by ICID.

WG-ENV Agenda Item 6: Tenure and future of the working group

11. During the WebEx meeting, Dr Perret suggested that the WG should continue to work on quantifying the impacts, using LCA and various other tools, which was supported by the members. It was also decided that socio-economic issues and the human element could also be covered under the ecosystem services and multi-functionality theme. As the WG-ENV continues to be productive and there has been a request to focus on ‘*Ecosystem services and multifunctionality in irrigation and drainage systems*’ in past meetings, the group has decided to continue, and therefore a draft Scoping Document (new mandate) has been prepared (see Item 9).

The Chairman may apprise the WG and chalk out the future line of action and vision for the WG.

WG-ENV Agenda Item 7: Updating Multilingual Technical Dictionary (MTD)

12. At the 65th IEC, it was decided that ICID Central Office bring out an online version of the MTD and make it available through ICID website. In this connection, Central Office is collecting the terms available with different NC in their respective languages, based on 2010 version of MTD. PCTA would be discussing the issue of revision of the MTD, pruning down the chapters and concentrating on the chapters that are within the expert purview of ICID. [Refer **Agenda Item 4 of PCTA**].

13. PCTA would require a feedback from each of the WGs as to how they plan to review / update the terms that fall within their respective scope of activities. WGs may discuss this issue and provide the required input to PCTA. To achieve this goal, it is proposed to undertake the concerned terms by the respective Working Group depending on their domain of expertise suggesting changes / modification and addition of new terms, contributing pictures, links and videos related to respective term.

The WG to discuss as above and report to PCTA.

WG-ENV Agenda Item 8: Website of working group

14. Dr. Michael van der Laan (South Africa) and Engr. Dr. Muhammad Basharat Chaudhry (Pakistan) have provided interesting papers/ articles which have been uploaded on WG website. Other members are requested to provide interesting articles/ documents/ reports for sharing them by uploading on ICID website.

WG-ENV Agenda Item 9: Summary of activities , Closure report and revised mandate of the WG

15. The summary report of the activities of the WG for the previous tenure (2008-2015) has been prepared and circulated to members. The Chair may highlight the achievements of the WG. The Chair may bring out a ‘Closure Report’ of the WG highlighting the technical output of the WG. The scoping document (new mandate) has been prepared and circulated amongst the membership for their suggestions and/or comments (**Annex 2**).

The new mandate may be discussed and the final version submitted to PCTA for continuing the WG.

WG-ENV Agenda Item 10: International Workshop on Ecosystem Services and multi-functionality of irrigation and drainage systems”

16. International Workshop on the theme “*Ecosystem Services and Multi-Functionality of Irrigation and Drainage Systems: Theoretical and Empirical Perspectives, Case Studies and Practical Prospects*” was held on 14 October 2015 from 09.00-12.30 hours at Montpellier. Chair will provide the brief report/ outcome of the workshop.

17. The Chair may like to assign one of the members of the group to prepare an article (1500 words) on Ecosystem services and multi-functionality of irrigation and drainage systems for ICID News. It may be pointed out that the articles in ICID News are generally targeted at non-expert audience including policy makers.

18. In addition to the article for ICID News, the WG will also explore the possibility of using the expertise of various members to write a scientific article on irrigation and ecosystem services, possibly targeted at ICID’s Irrigation and Drainage Journal.

WG-ENV Agenda Item 11: Any other business



NOTES FOR CHAIRPERSON:

1. Draft minutes of this meeting to be submitted to ICID Secretariat at Montpellier (France) after the meeting.
2. Chair to participate and present the WG report to PCTA meeting on 15 October 2015.

A. Attendance of members at 2013 and 2014 meetings

| Sl. No. | Members | Member from | 2013 | | 2014 | | Remarks |
|---------|--|-------------|------|---------------------|----------------|---------------------|----------------------------|
| | | | Self | Contributed by mail | Self | Contributed by mail | |
| 1. | Dr. Sylvain Perret, Chairman, 2011 (France) | 2010 | | • | • | | Attended the WebEx meeting |
| 2. | Prof. N. Hatcho, Vice Chairman, 2011 (Japan) | 2008 | • | | • | | Attended the WebEx meeting |
| 3. | Dr. Michael van der Laan, Secretary (South Africa) | 2010 | • | | # ¹ | | Attended the WebEx meeting |
| 4. | Dr. Hu Heping (China) | 2008 | • | | # | | Attended the WebEx meeting |
| 5. | Prof. Yih-Chi Tan (Chinese Taipei) | 2008 | # | | | | |
| 6. | Mr. Mohammad Kazem Siah (Iran) | 2008 | # | | # | | |
| 7. | Mr. Osmo Antero Purhonen (Finland) | 2008 | • | | # | | |
| 8. | Dr. Choi, Joong-Dae (Korea) | 2008 | | | • | | Attended the WebEx meeting |
| 9. | Mr. V.C. Ballard (Australia) | 2010 | | | • | | Attended the WebEx meeting |
| 10. | Dr. Anna Tedeschi (Italy) | 2011 | | | | | |
| 11. | Mr. Ahmed Mohammad Aziz (Iraq) | 2011 | | | • | | |
| 12. | Dr. Aynur Fayrap (Turkey) | 2012 | • | | • | | Attended the WebEx meeting |
| 13. | Ir. Mohd Azmi Ismail (Malaysia) | 2013 | • | | • | | Attended the WebEx meeting |
| 14. | Secretary General, ICID | | | | | | |

B. New nominations received from the National Committees

| Sl. No. | Name | Country | Remarks |
|---------|--|-------------|--|
| (1) | Dr. Muhammad Basharat Chaudhry | Pakistan | Attended the WebEx meeting. Recommended for membership, subject to presence or else Provisional Member |
| (2) | Dr. Fuqiang Tian (in place of Dr. Hu Heping) | China | Recommended for membership, subject to presence or else Provisional Member |
| (3) | Prof. dr. (Ms.) Charlotte de Fraiture | Netherlands | Recommended for membership, subject to presence or else Provisional Member |
| (4) | Mohammad Samiul Ahsan Talucder - Direct Member | Bangladesh | Recommended for membership, subject to presence or else Provisional Member |
| (5) | Ms. Seija Virtanen in place of Mr. Osmo Purhonen | Finland | Recommended for membership, subject to presence or else Provisional Member |

¹ # Through representation

WORKING GROUP ON ENVIRONMENT
Strategy Theme: Basin

DRAFT SCOPING DOCUMENT

Prepared by Dr Sylvain R. Perret, Dr Michael van der Laan, and Prof. Nobumasa Hatcho

1. Objectives

- 1.1 This document aims at scoping and formulating the new mandate and thematic areas for ICID Working Group on Environment (WG-ENV), in view of its extension of tenure after 2015 (completion of current mandate).

2. Introduction

- 2.1 ICID has long been concerned and addressing the issues associated with the environmental impacts of irrigation and drainage systems. These activities have more recently been driven by the WG-ENV, which was established in 2008. Completion of mandate was initially set at 2014, then later postponed to 2015.

3. What was achieved, what are the prospects for a renewed, extended mandate?

- 3.1 The original **mandate of ICID's WG-ENV** was formulated as follows:

“To provide guidance to policy makers, planners, designers, and managers in the irrigation and drainage sector on the environmental aspects of drainage and irrigation systems. The environmental aspects are physical, chemical, ecological, socio-economic and cultural, as well as concerns to the effects on climate and human health. By looking at environmental aspects, the working group will aim for the management of a sustainable environment, maximizing positive and minimizing adverse effects of irrigation and drainage systems”.

- 3.2 WG-ENV has not addressed all of the environmental aspects of I&D systems during the 2008-2015 mandate. The overall idea of a renewed mandate would be to redress this, to take account of latest global and regional environmental changes, and to address ecological, socio-economic, cultural, health-related aspects, along with a closer look at climate change related environmental interactions (mitigation and adaptation).

- 3.3 In 2011, a workplan was developed, in order to adjust actions to the changing global conditions and to better meet members' expectations and demands, yet aligned with the mandate. The workplan 2012-2014 included the following actions:

3.3.1 Action 1: Improving communication among WG-ENV members between annual ICID meetings

- (a) In view of the poor communication between members in between annual meetings, it was necessary to identify other pathways for continuous communication.
- (b) We attempted but failed to actually implement social-network based solutions (e.g. a LinkedIn group). However, ICID has set up a system for free on-line videoconferencing as an alternative. The first such online meeting of WG-ENV was held on March 19, 2015.
- (c) **Prospects for renewed mandate:** Such solution (e-meeting via internet-based videoconferencing, WebEx style) proved successful (yet for one event only), and therefore WG-ENV should continue using it. Continuous communication between larger formal events is clearly essential for the success of WG-ENV.
- (d) **Suggestion:** It is suggested that regular videoconferencing be explicitly mentioned as a communication tool in the next workplan.

3.3.2 Action 2: Addressing the issues of Agricultural Return Flow and Requirement for Environmental Flow

- (a) This topic had been on the agenda of WG-ENV since its inception (2008). Most of the work done and discussions focused on environmental flow, while little was done on agricultural return flows.
- (b) The main activities included: an International Workshop in Adelaide 2012, organized jointly with WG-PQW on “Irrigation, Water Quality and Environmental Flow”; various presentations in 2011 and 2013

by WG members and invited speakers during WG-ENV meetings; dissemination of documents and information by several WG members. Particularly documents on comprehensive reviews of Environmental Flow Requirement (EFR) estimation methods were posted on Dropbox.

- (c) **Prospects for a renewed mandate:** This theme has long been addressed and debated within the WG. Many WG members felt that, although an important topic, EF and EFR are a bit distant from the core concerns of WG-ENV: irrigation and drainage. In that sense, working on EF and EFR alone may not be relevant, especially since many other work bodies do it much more efficiently than WG-ENV. Other members reiterated that EF and EFR are important elements of water systems at basin level, yet insisting on the need to better link EF with ARF (contribution of ARF to EF to be clarified). Some members indicated their firm interest in getting information on best practices, case studies, and methods to assess EFR, and the need for clear guidance, so that they can convey 'ICID-labeled' or '-endorsed' recommendations to national policy makers in their countries. Decisions on scoping the next mandate must also take into account the very poor attendance and contribution by WG-ENV members to the International Workshop in Adelaide 2012, organized jointly with WG-PQW on "Irrigation, Water Quality and Environmental Flow".
- (d) **Suggestion:** it is suggested that EF and EFR be dropped as themes to be addressed further in the renewed mandate of WG-ENV. Enough has been done (circulating documents, workshop etc.).

3.3.3 Action 3: Addressing the issues of "Environmental aspects of irrigation and drainage projects" and "Management of a Sustainable Environment (maximizing positive and minimizing adverse effects of irrigation and drainage systems)"

- (a) This topic was also on the agenda since the outset, yet not really addressed until 2010. It was decided to promote Life Cycle (LC) approaches (LC inventory, LC impact assessment) as effective means of studying the potential impacts of irrigation systems, equipment, activities on the environment, from a regional / basin perspective. LCI / LCIA approaches receive growing interest globally, for their potential towards more sustainable production processes, process / product labeling, environmental foot-printing, assessment of diverse regional and global impact categories (climate change, eutrophication, acidification, resource depletion, energy use, biodiversity loss, etc.). The objective was that ICID's WG-ENV forms a platform towards LCA awareness and use in irrigation and drainage community at global level.
- (b) An introduction to the application of LCA to irrigation systems was provided during the 2nd meeting in Yogyakarta, 2010. Although many WG-ENV members were initially unsure of the potential and benefits of the LC approach, it was decided to set up a WG task team on "LC Approaches Applied to Irrigation and Drainage Systems". The Chair, Vice-Chair, and Secretary of WG-ENV formed the task team; some interested members / observers joined at times. Task team activities consisted of:
 - (i) Document and information sharing between LCA task team and WG members (background documents, recent literature on LCA application in irrigation and drainage);
 - (ii) Four presentations were made by task team members during the 4th WG meeting in Adelaide, 2012, on LCA (June 2012),
 - (iii) A draft WG report on "LC Approaches Applied to Irrigation and Drainage Systems" was compiled, including literature review and case study papers; the draft report was finalized in January 2015 and sent to ICID CO for consideration.
- (c) **Prospects for a renewed mandate:** Life-cycle based environmental impact assessment is now widely accepted, promoted, and implemented by international bodies (e.g. UNEP, EU, OECD), national environmental agencies, researchers, consultants and corporates on all continents. The irrigation and drainage sector, and broadly the agricultural sector, is still lagging behind, although awareness is growing, and progress is being made. WG-ENV at ICID has contributed to such awareness and progress. Although the group has been very active, and much has been achieved, there is still a lot to do regarding ingraining environmental impact assessments based upon LC approach (water foot printing, carbon foot printing, energy balance etc.) into national committee's working and practices. Besides, recent advances in social LCA provide avenues for discussion, capacity development and knowledge transfer in future still has to be done.
- (d) **Suggestion:** Environmental impact assessment of irrigation and drainage systems should definitely remain a core theme for the WG-ENV. Knowledge sharing and discussions on case studies on different approaches, methods and tools are much needed by most national committees. We suggest to keep this activity, not limited to LCA, and also to consider developing activities on social, human and economic impacts of I&D systems.

3.3.4 Action 4: Addressing specific issues of interest "Irrigation and Drainage projects and human health", "Environmental Standards and Norms; International vs. National Guidelines in EIA"

- (a) The topic has been included lately, on request of observers from Pakistan, Iraq, and Indonesia. Related documents have been circulated to interested members with request to take the lead and form a sub-group or task team on the issue, if needed.
- (b) Prospects for renewed mandate: Health and sanitary impacts are arguably important aspects of I&D systems, and need to be taken into account by WG-ENV.
- (c) Suggestion: Those aspects could be addressed as part of activities on social, human and economic impacts of I&D systems (see above).

4. Towards a new mandate for WG-ENV

4.1 Scope

- 4.1.1 Agricultural production keeps increasing worldwide, and yet, high global population growth rates, volatility in food prices, market and institutional failures result in food insecurity for millions, especially in developing and least developed countries. At the same time, environmental issues become significant and take a growing toll on human health, ecosystem integrity, resources availability, and economic performance of the eco-systems. In a global context of climate change, extreme events and increasing uncertainty with higher risks play an important role in providing food security.
- 4.1.2 In the triple challenges of the need to increase food production, protect the environment, and adapt to changing and uncertain climatic conditions, irrigation and drainage systems have a key role to play.
- 4.1.3 Irrigation and drainage systems worldwide interact with complex, dynamic and diverse environments which include physical, chemical, ecological, climatic, social, human and economic dimensions. Environmental sustainability is a moving target which evolves as the complex and dynamic relationships between nature and societies unfold and as new challenges emerge. The pillars of the ‘Green Revolution’, – high yielding varieties, use of agrochemical inputs, and mechanization, along with massive irrigation development – have had a definite positive outcome in increasing food production, which prevented hunger in many parts of the world in early sixties. But they also resulted in negative impacts on the environment in due course of time.
- 4.1.4 The way water in general and water for agriculture in particular is managed, may harm the environment in a variety of ways: groundwater depletion, land degradation and water contamination, depletion of resources, GHG emissions, and the loss of ecosystem services, biodiversity, and habitats. However, most irrigation and drainage systems also produce a number of goods, services and positive amenities, which benefit local communities and societies at large. Finally, recent trends on addressing rural development issues with respect to environmental dimensions put the local rural region or “territory”² (as a landscape connected to communities, with social and economic activities) to the fore. IWRM principles put river basin, catchments, irrigated territories, and the regional scale as relevant levels for decision-making and intervention. Recent concepts and theories from industrial ecology promote ‘territorial intelligence’ as the next relevant target (and lever) for rural and agricultural development.
- 4.1.5 With respect to these dimensions, four aspects are of major importance:
 - (a) What are **the positive amenities, services, goods**, etc. provided by irrigation and drainage systems? How can those be better characterized, quantified, and ultimately used in policy making, and in agricultural and rural development planning? What are the existing concepts and tools?
 - (b) What are **the negative environmental impacts of irrigation and drainage systems**? What are the existing frameworks available to quantify such impacts?
 - (c) What are **the negative social and economic impacts of irrigation and drainage systems**? What are the existing frameworks available to quantify such impacts?
 - (d) How **could irrigation and drainage systems and local regions (‘territories’)** be better addressed as key levels for policy-making, and action with regards to minimizing negative impacts and maximizing positive services, beyond the farm level? How can the different operators, the economic, institutional, and social agents, who act at regional level, be better involved?

² Caron (2015) reminds us that the use of the term « territory », although straightforward and unbiased in latin-originated languages, may be controversial or at least arguable in English. Indeed, “territory” is often connoted with political, or even military values in English, linked for instance to exploration, conquests, or discriminatory spatial organization and governance. Also, the national level is often the one associated with the term. On the contrary, we refer here to the local rural territory. See further below an end note that discusses rural territories as scientific and developmental objects.

4.1.6 In this Scoping Document the relevant aspects of each of these items will be reviewed and the objectives, state of knowledge on the topic and the Workplan will be presented.

4.2 Objectives

4.2.1 Relevance of the Working Group

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

- (a) The topic of the **environmental, social and economic impacts of irrigation and drainage systems** is relevant to the vision and mission of ICID and of interest to its members, in all the countries.
- (b) The WG is expected to contribute to effective implementation of **the Strategy Theme “Basin”** and possibly to other strategy themes for that matter (see below); the Basin level³ is **the level where most environmental impacts ultimately materialize and translate into consequences** such as 1) human societies and humans (health, food security), 2) ecosystems (biodiversity, ecosystems’ health, renewable resources) and 3) non-renewable resources (depletion or conservation).
- (c) It may be expected that in the years to come, the negative **environmental, social and economic impacts of irrigation and drainage systems will increase and will be more critically scrutinized**, because such systems may expand further, and are expected to be more intensively used for food production, **in view of global demographic trends and food security challenges**;
- (d) It may also be expected that **policy-makers take a closer look to environmental, social and economic impacts (positive and negative) of irrigation and drainage systems** as they become more significant in a context of climate change, consumer awareness on environmental issues, food safety and health, and socio-economic concerns. New institutions and legislation may develop consequently;
- (e) There have been **recent advancements in concepts and methodologies related to characterizing and quantifying environmental, social and economic impacts of irrigation and drainage systems**; it is ICID’s mission to make sure such knowledge is made available to, and used by its member countries.

4.2.3 Relevance of the Working Group to the scope of the Strategic Thematic Area

- (a) For the relevance of the WG to the scope of the Strategic Thematic Area, the same argumentation is applicable as shown under the relevance. Most of the activities in irrigation and drainage have impacts, be they negative or positive. The WG-ENV recognizes the Basin level **as the territory that includes irrigation and drainage systems amongst other water and natural resource management systems, and interacting stakeholders and economic agents, with various activities and interests**. The Basin level (actually the catchment or watershed) is the level where most environmental impacts ultimately materialize and translate into consequences onto 1) human societies and humans (health, food security), 2) ecosystems (biodiversity, ecosystems’ health, renewable resources) and 3) non-renewable resources (depletion or conservation).

4.2.4 Existing gaps that the Working Group is expected to fill

- (a) Renewed scope and mandate of the WG-ENV should include the latest initiatives on **ecosystem services and the multifunctionality of irrigation and drainage systems**, in order to better account for positive impacts, amenities and benefits from I&D systems. Recent research and literature recognize and document this diversity of functions, services and impacts in agricultural water systems, which may be identified as agro-hydro-ecosystems. The concepts of multifunctionality and ecosystem services are now globally used to characterize such situations, and often pave the way to innovative policies and institutions.
- (b) No other ICID WG or TF is currently formally addressing such concepts. An introductory presentation was made in Gwangju 2014 by Dr Perret, WG Chair. Further, a workshop is being organized during the ICID conference in Montpellier 2015. WG-ENV members have expressed their interest in the topic and suggested to include it in the new mandate.

³ ICID has selected three strategic spatial scales for action of its workbodies: On-Farm, Scheme and Basin. WG-ENV has jurisdiction over the so-called Basin strategic theme; as a matter of fact, WG-ENV may address any scale deemed relevant to its mandate, beyond the scheme level (strictly the irrigation and drainage system), i.e. catchment, rural local region, waterscape and landscape, watershed, basin, rural territory.

- (c) Environmental impact assessment of irrigation and drainage systems should definitely remain a core theme for the WG-ENV. Knowledge sharing and discussions on case studies on different approaches, methods and tools are much needed by most national committees. We suggest to keep this activity, not limited to LCA, and **also to consider developing activities on social, human and economic impacts** of I&D systems.
- (d) Other ICID WGs or Task Forces (TF) that have a related scope of work are: WG-SDG, WG-PQW, WG-DROUGHT, WG-CLIMATE, WG-ON-FARM. The new WG has taken good note of the activities of these Workbodies when preparing this Scoping Document.

4.3 State of knowledge on the topic

4.3.1 Other International Organisations that are working on the subject

4.3.2 There are several other International Organisations that have programmes and activities on this topic. This especially concerns the:

- (a) Organisations of the United Nations (FAO, UNEP);
- (b) Most of the 15 research institutes that are organised within the CGIAR Consortium, especially IWMI;
- (c) International Fund for Agricultural Development (IFAD);
- (d) Several of the 11 professional water associations, especially: ICOLD and IHA;
- (e) Multilateral development banks: ADB, AFDB, IADB, WB, IFAD;
- (f) International partnerships, associations and NGOs: IWA, IWRA, WWC, WWF
- (g) Universities and institutes for international education: AIT, McGill University, UNESCO-IHE
- (h) International research and cooperation organizations: Cirad, GIZ, USDA, AUS-AID, SIDA, CIDA, IRD.

4.3.3 The niche that ICID is expected to fill in this area

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

- (a) **Exchange of information and networking on the topic** in order to be up to date with new developments, concepts, methods and approaches. This can be the basis to present policy recommendations and if mature, a position paper on key issues on environmental, social and economic impacts of irrigation and drainage systems, and the ecosystem goods and services they provide;
- (b) **Review and prepare a condensed overview** of existing key books, manuals, guidelines and other relevant publications on the topic;
- (c) **Prepare and present reports** and/or case studies on recent development in the countries that are represented in the WG;
- (d) **Collect and review manuals, guidelines, codes of practice and standards** on characterizing, quantifying all sorts of positive and negative impacts of irrigation and drainage systems in the countries that are represented in the WG;
- (e) **Organise international workshops**, seminars or symposia on the topic;
- (f) **Prepare overview papers and ICID position papers** on the state of the art on ecosystem services and multifunctionality, and on methodologies for assessing the multiple impacts of irrigation and drainage systems, for publication in Irrigation and Drainage or other international journals.

4.3.5 How is the Working Group expected to collaborate with the other international organisations?

- (a) International organisations can contribute to the activities of the WG by nominating Permanent Observers (PO). Also, presentations of the work and achievements of the WG can be made at the occasion of events organized by the international organisations. Finally, key experts may be invited to present crucial advances or new material to WG meetings, for the benefit of members.

4.4 Work Plan

4.4.1 Scope

- (a) The WG is expected to investigate, analyse and disseminate information on new developments and to formulate recommendations with respect to:
 - (i) **The positive amenities, services, goods**, etc. provided by irrigation and drainage systems; the existing concepts, tools, approaches to characterize multiple uses, ecosystem services, and the multifunctionality related to irrigation systems, their valuation and quantification; also, the use of such concepts in policy making, and in agricultural and rural development planning ought to be addressed;
 - (ii) **The negative environmental impacts of irrigation and drainage systems**, the existing frameworks available to quantify such impacts, the final consequences of resource use and pollutions to air, soil and water compartments in terms of human health, ecosystems' health, and resource conservation; also, the use of such concepts in policy making (including the need for trade-offs, prioritization, and key choices), and in agricultural and rural development planning ought to be addressed;
 - (iii) **The social and economic impacts of irrigation and drainage systems**, the existing frameworks and approaches available to quantify such impacts;
 - (iv) **The management of irrigation and drainage 'territories'** , as waterscapes where many economic and social agents co-exist and interact, where private interests collide and interact with common-pool resources, collective action features, public action and policy making; at this level, collective action and trade-offs are required for sustainable development and policy making; also, the institutions necessary to minimize negative impacts, and to maximize positive ones are to be set up at that level and thus require WG-ENV attention.
- (b) These four domains refer mostly to information collection, compilation, sorting-out and dissemination. Many further activities will be spelled out in more details at a later stage (work plan development) and will be developed based upon individual and team work by all WG members.
- (c) The renewed mandate is suggested as follows (alterations from previous mandate have been highlighted):
- (d) "To provide guidance to policy makers, planners, designers, and managers in the irrigation and drainage sector on the environmental aspects of drainage and irrigation systems. The environmental aspects are physical, chemical, ecological, socio-economic and cultural, **as well as concerns to the effects on local, regional and global common goods, such as climate, biodiversity and human health**. By looking at environmental aspects, the working group will aim for the management of a sustainable environment, **through adapted practices, adequate policies and institutions**, maximizing positive and minimizing adverse effects of irrigation and drainage systems".

4.5 Target audience

- (a) The target audience for this WG and its outputs will be designers and managers of irrigation and drainage systems, water management officers at basin or regional level, water quality management officers, environment conservation agents, development and socio-economic facilitators, researchers and the academia, students, consultants, government officials, farmer representatives and staff of international organisations.

4.6 Outputs

- (a) The following outputs can be expected from this WG:
 - (i) Although it is an indirect output, **sharing of knowledge and experience by representatives of NCs** will also enable them to disseminate this knowledge within their country;
 - (ii) **Condensed overview of existing key books**, manuals, guidelines and other relevant publications on the topic;
 - (iii) The WG is expected to organise at least one **workshop, seminar or symposium** in three years at occasion of an international ICID meeting;
 - (iv) **ICID codes of practice** and standards for the assessment of environmental, social and economic impacts of irrigation and drainage systems.

4.7 Timelines

- 4.7.1 The impacts and interactions of irrigation and drainage systems onto their multifaceted environment form a permanent and crucial topic. They involve long term processes and far-reaching consequences at different levels and scale of societies.
- 4.7.2 It is recommended that the initial term of this WG be set at six years. The timeline would have to be based on the scope of work and the expected output. Details of the timeline would have to be formulated and refined during the inaugural meeting of the WG.

4.8 Collaborators and dissemination strategy

- 4.8.1 The WG would have to base its activities on an open platform, with a clear scope for invitation of outsiders that are interested in the topic on a PO or ad-hoc basis.
- 4.8.2 The dissemination strategy would have to be based on reaching those who can apply the findings and recommendations of the WG in their research and especially in policy development, decision making and implementation in practice. Case studies and comparative analyses based upon the promoted methodologies may be carried out in various countries, on voluntary basis of willing and motivated members.

5. Core Group

- 5.1 This draft has been circulated among the National Committees with the request to nominate members. Comments received from the members of the Core Group have been included in this scoping document. The Core Group consists of:

Convenor: Sylvain Perret (France; may not become the chairman of the proposed WG; applications and ideas are welcome)

Members: M. Van der Laan (South Africa); N. Hatcho (Japan); C. De Fraiture (Netherlands) ; T. Fuqiang (China); M. B. Chaudhry (Pakistan); V.C. Ballard (Australia); A. Fayrap (Turkey); M.A. Ismail (Malaysia); A.M. Aziz (Iraq); A. Tedeschi (Italy); J-D Choi or (Korea); O. Purhonen (Finland); M.K. Siahi (Iran); T Yih Chi (Taiwan)

National committees and/or members themselves may decide ultimately to continue or discontinue (then nominate) individual memberships to WG-ENV, based upon the renewed scope and mandate.

**AGENDA FOR THE 18TH MEETING OF THE
WORKING GROUP ON HISTORY OF IRRIGATION, DRAINAGE AND
FLOOD CONTROL (WG-HIST)**

14 October 2015, 14.00-15.30 hours
Montpellier, France

Strategy Theme: Knowledge

Presented by the Chairman

Year of Establishment: 1998

Completion of the Mandate: 2016

Mandate: To motivate ICID National Committees in various countries to set up their National Working Groups and provide them guidance to compile, publish, update and/or translate documents on history of irrigation, drainage, flood management, and river engineering, incorporating relevant agricultural, political, socio-economic, climatologically and geographical aspects for proper understanding of the technological developments in the subject, if possible chronologically. Furthermore, to organize seminars at ICID Congresses, in order to show the importance of historical studies and as to how they help when planning for the new projects.

Website: <http://wg-hist.icidonline.org/>

WG-HIST Agenda Item 1: Action taken report by Chair

1. The Chairman may like to present report on the actions taken on the various decisions/ proposals of the working group at the 17th WG meeting at Gwangju, Korea.

WG-HIST Agenda Item 2: Review of membership of the working group

2. In order to increase the efficiency and functioning of the Working Group during annual face to face meeting and avoid spending a lot of time on administrative matters, MB has decided that the admission of new members or discontinuation of the membership of the group will be dealt by Chairman in consultation with Vice Chair, Secretary and ICID Central Office prior to the meeting itself through emails/ web conference.

3. The Pakistan National Committee (PANCID) has nominated Prof. Dr. Abdul Sattar Shakir for the membership of the working group. Accordingly, the updated membership of the WG is available in **Annex** (see *the electronic version for the latest list*).

WG-HIST Agenda Item 3: Task Team on Historical Irrigation Structures (HIS)

4. To take the functioning of the WG to another level, ICID initiated recognizing the historical irrigation and/or drainage structures as “Heritage Irrigation Structures (HIS)” in 2014. ICID maintains a Register of World Heritage Irrigation Structures for the purpose. Seventeen such structures from around the world, so far, have been recognized as “Heritage Irrigation Structures (HIS)” and included in the ICID Register of HIS at http://www.icid.org/icid_his.html.

5. During the Gwangu meeting (2014), there were discussions regarding having two separate lists in the register viz. (i) operational scheme, and (ii) non-operational scheme. This has since been incorporated and the updated scheme is available at **Annex 5** of IEC Agenda.

6. Nominations have been invited from the ICID National Committees for selection of HIS older than 100 years. National Committees can nominate more than one structure, using separate nomination form for each. To broaden the scope, Associated Members and non-member countries can also nominate their structures through the neighboring active national committees or by submitting directly to ICID Central Office. Receiving nominations and recognizing the HIS is a continuous process. However, nominations received before 15 July 2015 will be adjudged for inclusion in the ICID register of HIS by the International Executive Council (IEC) in its 66th session scheduled to be held on 16 October 2015 at Montpellier, France.

7. Members of the group are encouraged to go through the HIS scheme and encourage NCs and others to submit nominations.

WG-HIST Agenda Item 4: Publication on “Historical Water Sustainability”

8. Dr. Hafied A. Gany (Indonesia) has submitted (January 2015) the draft chapter titled “Water history and sustainability in Indonesia” for its inclusion in the publication of ‘Historical Water Sustainability’. The Chairman has forwarded the draft chapter to Prof. Hachco for reviewing.

9. Dr. Marco Arcieri from ITAL-ICID provided (February 2015) the draft chapter titled “The Grand Canal” (later the Cavour Canal) written by Eng. Antonio Linoli as a contribution to the publication. He also informed that Eng. Linoli and ITAL-ICID hold copyright of this work, which is part of Volume Number VII of Series edited by ITAL-ICID which will be printed soon in English first and subsequently in Italian.

10. The Chair Dr. Kamran Emami informed (March 2015) that so far 11 chapters have been received and are being reviewed and the draft version of the publication would be presented during the Montpellier meeting. Dr. Emami also informed that he has received support of Khuzestan Water & Power Authority (KWPA) for publishing the book.

Chair may like to provide further updates at the meeting.

WG-HIST Agenda Item 5: International Workshop on ‘History of water crisis, old and recent issues’, 13 October 2015, Montpellier

11. International Workshop on the theme “*History of water crisis, old and recent issues*” was held on 13 October 2015 from 14.00-17.30 hours at Montpellier. Chair may like to provide a brief report/ outcome of the workshop. The Chair may also like to assign one of the members of the group to prepare an article on ‘History of water crisis, old and recent issues’ for ICID News¹.

WG-HIST Agenda Item 6: Closure report and revised mandate of the WG

12. Since the WG is completing its mandate in 2016, the Chair will present a closure report giving brief description of how its intended objectives and mandate have been achieved, including conclusion & recommendations and way forward.

13. Further, in order to continue the WG with new mandate, the Chair would be presenting the Scoping Document (SD) of new WG for onward submission to PCTA/ IEC for approval.

Chair may like to provide further updates at the meeting.

WG-HIST Agenda Item 7: Any other business



NOTES FOR CHAIRPERSON:

1. Draft minutes of this meeting to be submitted to ICID Secretariat at Montpellier (France) after the meeting.
2. Chair to participate and present the WG report to PCTA meeting on 15 October 2015.

¹ Articles in ICID News are generally targeted at non-expert audience including policy makers.

A. Members and their attendance at 2013 and 2014 Meetings

| Sl. No. | Members | Member from | 2013 | | 2014 | | Remarks |
|----------------------------|---|-------------|----------------|---------------------|------|---------------------|--|
| | | | Self | Contributed by mail | Self | Contributed by mail | |
| 1. | Dr. Kamran Emami, Chairman (Iran) | 2009 | • | | • | • | |
| 2. | Dr. Bert Toussaint, Secretary (The Netherlands) | 2005 | • | | | | |
| 3. | Prof. Dr. N. Hacho (Japan) | 1996 | • | | • | • | |
| 4. | Mrs. Xuming Tan (China) | 1997 | • | | | | |
| 5. | VPH Dr. Laszlo Hayde (Hungary) | 2001 | • | | • | • | |
| 6. | Mr. Yogesh Paithankar (India) | 2009 | | | | | Recommended for discontinuation |
| 7. | VPH Dr. A. Hafied A. Gany (Indonesia) | 2005 | | • | • | • | |
| 8. | Mr. Charles L. Abernethy (UK) | 2005 | # ² | • | | • | |
| 9. | Dr. Ing. Klaus Rottcher (Germany) | 2006 | • | | • | • | |
| 10. | Prof. Jaekyoung Noh (Republic of Korea) | 2014 | | | • | | |
| 11. | Dr. Chih-Hung Tan (Chinese Taipei) | 2014 | | - | | | Recommended for discontinuation (Provisional member in 2014) |
| 12. | Mr. Chaiwat Prechawit (Thailand) | 2014 | | | | • | Contributed a chapter to the publication in 2015 |
| 13. | Engr. Sirika Ahmad Abubakar (Nigeria) | 2014 | | | • | | |
| 14. | Mr. Antonio Linoli (Italy) | 2014 | | | | • | Contributed a chapter to the publication in 2015 |
| 15. | Secretary General, ICID | | | | | | |
| Permanent observers | | | | | | | |
| (i) | Dr. (Mrs.) B. Dolfing (The Netherlands) | | | | | | |
| (ii) | Dr. Ir. M. Ertsen (IWHA) | | | | | | |

B. New nomination received from the National Committee

| Sl. No. | Name | Country | Remarks |
|---------|-------------------------------|----------|---|
| (1) | Prof. Dr. Abdul Sattar Shakir | Pakistan | Recommended, subject to his presence or else Provisional Member |

² # Through representation

**AGENDA FOR THE 1ST MEETING OF THE
WORKING GROUP ON MODERNIZATION AND REVITALIZATION OF
IRRIGATION SCHEMES (WG-M&R)**

14 October 2015, 14.00-15.30 hours
Montpellier, France

Strategy Theme: Schemes

Presented by the Chairman

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: (i) 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.

WG-M&R Agenda Item 1: Introduction of the new Working Group

1. At the 65th International Executive Council (IEC) held at Gwangju on 20 September 2014, PH Bart Schultz presented the scope and proposed activities of the Working Group on Modernization and Revitalization of Irrigation Schemes. The Council accepted the recommendation of the PCTA to establish a new Working Group on Modernization and Revitalization of Irrigation Schemes (WG-M&R)¹ with the mandate and scope of work as provided in the Scoping Document (**Annex 1**) under the thematic area “Schemes” and requested NCs to nominate experts dealing with the concerned topics to contribute to the activities of the group. The main objectives and outcome of the WG are identified as follows:

(a) Objectives/ relevance

- (i) the topic of modernization and revitalization of irrigation schemes is relevant to the vision and mission of ICID and of interest for its members, especially in countries with a high, medium and low Human Development Index;
- (ii) the WG is expected to contribute to effective implementation of the Strategy Theme Schemes and to other strategy themes for that matter; and
- (iii) it may be expected that in the coming period most of the activities in irrigation will be in the field of modernization of existing schemes.

(b) Expected Outcome

- (i) although it is an indirect output sharing of knowledge and experience by representatives of NCs will also enable them to disseminate this knowledge within their country;
- (ii) condensed overview of existing key books, manuals, guidelines and other relevant publications on the topic;
- (iii) the WG is expected to organize on an annual basis a workshop, seminar or symposium at occasion of an international ICID meeting;
- (iv) ICID codes of practice and standards for modernization of irrigation systems;
- (v) position paper on key issues on modernization of irrigation schemes;
- (vi) overview paper on the state of the art for publication in *Irrigation and Drainage (IRD)*.

PH Bart Schultz, Convener of the WG may like to apprise the WG members about activities during last one year.

¹ IEC resolution 3/65: Organisational and technical activities of ICID (sr.no.7)

WG-M&R Agenda Item 2: Review of membership of the working group

WG-M&R Agenda Item 2.1: Membership of the group

2. Following Core Group members have contributed in preparing the Scoping Document of the WG viz. PH Prof. Bart Schultz, Convener (The Netherlands); Robina Wahaj (FAO); Herve Plusquellec (USA); Charles Burt (ITRC); Willem Vlotman (Australia); Phong Nguyen (Vietnam); Chris Perry (UK); Jonathan Denison (South Africa).

3. ICID vide notification no.6 of 2015 dated 26 May 2015 notified setting up of the WG-M&R and invited National Committees to nominate suitable experts/professionals for the WG. In response, following nominations are received from the National Committees.

- Dr. Yohei SATO (Japan)
- Mr. Bir Singh Dhama - Young Professional (Nepal)
- Engr. Muhammad Sani Bala (Nigeria)
- Mr. Alan Kendall Clark (UK)
- Mr. Ian Makin as Permanent Observer (UK)
- Dr. Kwang-Sik Yoon (Korea, Rep. of)
- Mr. Mohd Yazid bin Abdullah (Malaysia)
- Ms. Meral Çiçek (Turkey)
- **Dr. Brian T. Wahlin (USA)**

4. The existing membership of the WG and new nominations are given at **Annex 2** (*see the electronic version for the latest list*). Any new nominations for the membership received during the meeting will be dealt suitably after the meeting.

WG-M&R Agenda Item 2.2: Selection of new Chair, Vice Chair and Secretary

5. The group may like to discuss the membership and appoint a new Chair, Vice Chair and Secretary for the WG at the meeting.

WG-M&R Agenda Item 3: Work plan of the group

6. Keeping in view the modernization of irrigation schemes is a very important topic in light of its role in support of global food production, the Working Group is established with initial term of six years with effect from 2015. Members are requested to review the work plan presented in scoping document (Annex 1) and refine/update it during the inaugural meeting of the WG in Montpellier (France) in October 2015. Members are also requested to prepare three year rolling work plan in the format given at **Annex 3**. They may like to keep the action points of WWF7 in Item 5 in view while deciding the workplan.

7. Members may note that Mr. Ali Riza Diniz, Director General, Directorate of State Hydraulic Works (DSI) and Chairman of TUCID during his meeting with President and Secretary General, ICID on 12 April 2015 had indicated the interest of TUCID in preparation of a paper on the status of modernization in countries around the world. TUCID had also agreed to support development of guidelines for the design and maintenance of low pressure piped networks as Turkey is one of the leaders in this field. In response to ICID Central Office's request, TUCID has nominated a representative to the WG.

WG-M&R Agenda Item 4: Presentation by the working group members

8. In order to fulfill scope of the WG, members of the WG may like to make presentation on the topics covered under its mandate. Interested members are requested to inform the Chair of core group and ICID Central Office well in advance.

WG-M&R Agenda Item 5: Action points from Session 2.1.3 of WWF7 (Korea)

9. The 7th World Water Forum (WWF7) was held in Daegu and Gyeongbuk, South Korea from 13-18 April 2015. ICID together with FAO and other partners worked to develop sessions of Theme 2.1, "Water for Food", with six key focus areas of which one 2.1.e relates to modernization of irrigation schemes. ICID coordinated Session 2.1.3 on "Modernization of irrigation/drainage schemes for food security, rural prosperity and poverty alleviation", along with Korean Rural Community Corporation (KRC). The Session addressed various issues under the topic through presentations from partner international organizations and institutions.

10. As part of the Implementation Roadmap (IR) adopted at the WWF7 number of action points for each focus areas were identified (**Annex 4**). Since ICID is committed to work towards modernization and revitalization of irrigation schemes by 2030, ICID was identified as leading member for number of action points related to focus area 2.1.e-Modernization of irrigation schemes. The focus will be on infrastructure development and upgrading, service provision and improvement with proper water management techniques, institutional arrangements and reform and organizational management, duly factoring the multiple use of water.

11. ICID has committed that during the 1st meeting of WG-M&R action points from session 2.1.3 of WWF 7 would be discussed and appropriately incorporated in its work plan. In November 2016, on the occasion of 2nd World Irrigation Forum (WIF) in Thailand, a symposium on irrigation modernization will be organized in collaboration with other international organizations.

12. ICID has further committed that by 23rd Congress in Mexico in October 2017, a review of the standards and codes of practice associated with irrigation design, installation and how they address socio-economic and environmental aspect would be presented.

13. It was also committed that during the Congress, a report on “Modernization irrigation/drainage for a new Green Revolution” would also be presented. As an outcome of 23rd Congress with theme as “Modernizing Irrigation and Drainage for a new Green Revolution”, an appeal on needs for modernization of irrigation system to policy-makers and decision-makers in governments, private sectors and international financial institutions will be formulated to be delivered as inputs to the 8th WWF in Brasilia in 2018. Members may keep these commitments in view while drawing up the work plan.

14. WG members are requested to deliberate on the above action points and appropriately include these in its work plan. WG is also requested to invite other participating member countries to provide their contributions and experiences for inclusion in planned publications.

WG-M&R Agenda Item 6: Exchange of information, knowledge, and networking

15. Members are requested to exchange information, knowledge and experience, as well as networking on the topic in order to be up to date with new developments, methods and approaches. Members are also requested to provide information, papers, presentation made on topics related to scope of work of the WG to the ICID Central Office for uploading on the web site of the WG.

WG-M&R Agenda Item 7: Any other business



NOTES FOR CHAIRPERSON:

1. Draft minutes of this meeting to be submitted to ICID Secretariat at Montpellier (France) after the meeting.
2. Chair to participate and present the WG report to PCTA meeting on 15 October 2015.

**WORKING GROUP ON
MODERNIZATION AND REVITALISATION OF IRRIGATION SCHEMES (WG-M&R)**

UPDATED SCOPING DOCUMENT

1. Introduction

- 1.1 Water scarcity and the resulting need for its efficient use is a global challenge. In some countries there are also increasing land use intensification impacts on water quality driven by irrigation. The investment in irrigation systems is considerable. For example in a modern agricultural context the irrigation system investment behind the farm gate is frequently greater than the water storage and distribution infrastructure. Ensuring that irrigation schemes are designed, installed, managed and maintained well is essential if production gains, subsequent direct, indirect and induced economic benefits are to be realised, all whilst managing direct and indirect environmental impacts. It may be expected that in the coming period most of the activities in irrigation will be in the field of modernisation and enhancement of existing schemes. For a certain number of schemes revitalisation will be required, before modernisation activities can be undertaken, or such activities may be undertaken in combination. The revitalisation concerns the broader policy and strategy aspects of Governments with respect to actual activities with respect to the modernization of irrigation schemes.
- 1.2 Despite these socio-economic and environmental drivers there are no internationally accepted standards and associated codes of practice associated with irrigation design, installation and evaluation. To address this there is an urgent need for their development. This will provide a bottom-line for future irrigation development internationally.
- 1.3 With respect to these activities broadly speaking the following aspects are of major importance:
- (a) interaction between modernisation or revitalisation and resulting required operation and maintenance;
 - (b) cost sharing for modernisation or revitalisation and resulting required operation and maintenance;
 - (c) how to handle political, economic, social and environmental aspects;
 - (d) institutional and organisational arrangements for modernisation or revitalisation and resulting required operation and maintenance;
 - (e) people that operate, maintain and manage the schemes;
 - (f) codes of practice and standards.
- 1.4 In this Updated Scoping Document the relevant aspects of each of these items will be reviewed and the objectives, state of knowledge on the topic and the Workplan will be presented.

2. Objectives

2.1 Relevance of the Working Group

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

- (a) the topic of modernization and revitalisation of irrigation schemes is relevant to the vision and mission of ICID and of interest for its members, especially in countries with a high, medium and low Human Development Index²;
- (b) the WG is expected to contribute to effective implementation of the Strategy Theme Schemes and to other strategy themes for that matter;
- (c) it may be expected that in the coming period most of the activities in irrigation will be in the field of modernisation of existing schemes.

2.2 Relevance of the Working Group to the scope of the Thematic Area

2.2.1 For the relevance of the WG to the scope of the Thematic Area the same argumentation is applicable as shown under the relevance. Most of the activities in irrigation will be in the field of modernisation of existing schemes. For certain schemes, especially in the countries with a high, medium or low Human Development

² Low Human Development Index. Most of the countries in Africa, several countries in Asia, one country in Central America and most of the smaller countries in Oceania;

Medium and High Human Development Index. Most of the Eastern European countries (including Russia), most of the countries in Central and South America and in Asia (including China, India, Indonesia and Pakistan) and several countries in Africa;

Very High Human Development Index. Most of the countries in Western and Central Europe, North America and some countries in Central and South America and in Asia, the larger countries in Oceania and one country in Africa.

Index revitalisation may be required before modernization activities can be undertaken. This concerns the technical, institutional and environmental aspects.

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

2.3.1 Other ICID WGs or Task Forces (TF) that have a related scope of work are: WG-ENV, WG-SDTA, WG-DROUGHT, WG-CLIMATE, TF-VE, WG-ON-FARM.

2.3.2 While WG-ON-FARM is mandated to study efficient application of water at the field level, there is a gap in dealing with issues related to delivery of irrigation water upto farm level. None of the WGs are presently mandated to study the issues related to irrigation efficiencies and the way to improve them.

2.3.3 The new WG has taken good note of the activities of these Workbodies when preparing this Updated Scoping Document.

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

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

3.1.1 There are several other International Organisations that have programs and activities on this topic. This especially concerns the:

- (a) Food and Agriculture Organisation of the United Nations (FAO);
- (b) Most of the 15 research institutes that are organised within the CGIAR Consortium, especially IWMI and ICARDA;
- (c) Other research institutes: International Centre for Agriculture (ICBA);
- (d) International Fund for Agricultural Development (IFAD);
- (e) Several of the 11 professional water associations, especially: International Commission on Large Dams (ICOLD) and International Hydropower Association (IHA);
- (f) Multilateral development banks: Asian Development Bank (ADB), African Development Bank (AFDB), Inter-American Development Bank (IADB), World Bank (WB);
- (g) International partnerships: World Water Council (WWC);
- (h) Universities and institutes for international education: Asian Institute of Technology (AIT), Irrigation Training and Research Centre of California Polytechnic State University, McGill University, UNESCO-IHE.

3.2 *Mandate of the Working Group*

3.2.1 Mandate of the Working Group is based on the specific niche that this WG can fill in this area and can be formulated as follows:

- (a) exchange of information, knowledge and experience, as well as networking on the topic in order to be up to date with new developments, methods and approaches. This can be the basis to present recommendations and if mature a position paper on key issues on modernization of irrigation schemes;
- (b) review and prepare a condensed overview of existing key books, manuals, guidelines and other relevant publications on the topic;
- (c) prepare and present reports and/or case studies on recent development in the countries that are represented in the WG;
- (d) to collect and review manuals, guidelines, codes of practice and standards on modernization and revitalisation of irrigation schemes in the countries that are represented in the WG;
- (e) to organise international workshops, seminars or symposia on the topic;
- (f) to prepare an overview paper on the state of the art on the topic for publication in *Irrigation and Drainage (IRD)*.

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

3.3.1 International Organisations can contribute to the activities of the WG by nominating Permanent Observers (PO). On the other hand presentations of the work and achievements of the WG can be presented at the occasion of events organized by International Organisations.

4. Work Plan

4.1 Scope

4.1.1 The WG is expected to investigate, analyse, and disseminate information on new developments and to formulate recommendations with respect to:

- (a) planning and preparation for modernization and revitalization of irrigation schemes;
- (b) interaction between modernization, revitalization and required operation and maintenance;
- (c) cost sharing for modernization, revitalization and required operation and maintenance;
- (d) institutional and organizational framework required for modernization, revitalization and operation and maintenance;
- (e) methods and techniques of lining of conveyance and distribution canals;
- (f) canal control systems with respect to their automation, using internet, mobile communication and remote monitoring in canal operation;
- (g) modification to improve communication, operational capacities and flexibility in operation and maintenance of systems;
- (h) standardization and codes of practice in irrigation systems.

4.1.2 With respect to the last item interesting work has already been done in New Zealand. Therefore the relevant aspects of this activity are already presented in **Appendix A** of this Workplan.

4.1.3 A proposal for the three year rolling plan is shown in **Appendix B**.

4.2 Target audience

4.2.1 The target audience for this working group will be managers of irrigation schemes, researchers, consultants, manufacturers, government officials, farmer's representatives and staff of International Organisations working on the topic.

4.3 Outputs

4.3.1 The following outputs can be expected from this WG:

- (a) although it is an indirect output sharing of knowledge and experience by representatives of NCs will also enable them to disseminate this knowledge within their country;
- (b) condensed overview of existing key books, manuals, guidelines and other relevant publications on the topic;
- (c) the WG is expected to organise on an annual basis a workshop, seminar or symposium at occasion of an international ICID meeting;
- (d) ICID codes of practice and standards for modernization of irrigation systems;
- (e) position paper on key issues on modernization of irrigation schemes;
- (f) overview paper on the state of the art for publication in *Irrigation and Drainage (IRD)*.

4.4 Timelines

4.4.1 While modernization of irrigation schemes is a very important topic in light of its role in support of global food production it is recommended that the initial term of this WG will be set at six years. The timeline would have to be based on the scope of work and the expected output. Details of the timeline would have to be formulated and refined during the inaugural meeting of the WG.

4.5 Collaborators and dissemination strategy

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

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

Appendix A to Annex 1, Para 4.1.2

1. Relevant Aspects of Work in New Zealand With Respect To Standardization and Codes of Practice

1.1 Over the last decade Irrigation New Zealand (INZ) has placed much of its focus on developing and publishing comprehensive Codes of Practice and Standards for design, installation and evaluation. The reasoning for this is explained below. INZ is willing to put these documents on the table as a starting point for an international discussion, providing it is included within the project development team. INZ has much to share with its international partners as regards Codes of Practice and Standards development and implementation. INZ acknowledges its documents are not perfect, but they do provide a sound starting point. If the ICID finds in favour of the need for International Codes of Practice and Standards, INZ is willing to work with IAL to develop a full project proposal to be presented at the next ICID meeting.

2. The catalysts for Codes of Practice and Standard development in NZ

2.1 Irrigation in New Zealand currently faces two environmental barriers for its continuation and further development - water scarcity and more importantly the subsequent water quality impacts of land use intensification (nutrient losses through drainage and run-off) that irrigation often results in.

2.2 The recent rapid development and modernisation of irrigation in NZ has resulted in issues with 'rogue irrigation service providers'. This resulted in reputable irrigation service providers and irrigators requesting that industry bottom lines to be put in place to help safeguard an irrigators investment. Ten years after their inception these standards are now beginning to be utilised within the regulatory framework. For examples; court cases related to substandard design and installation have questioned whether the Irrigation Codes of Practice and Standards have been followed by the contractor; water permits now commonly include conditions that any future upgrade or development should be consistent with the Irrigation Codes of Practice and Standards.

2.3 To combat the above issues, primarily to address the regulatory and other community stakeholder concerns, INZ has produced an 'Irrigation Good Management Practice' strategy and resulting implementation framework (Figure V.1). This is now known as 'SMART Irrigation' - SMART being Sustainable, Managed, Accountable, Resilient and Trusted Irrigation.

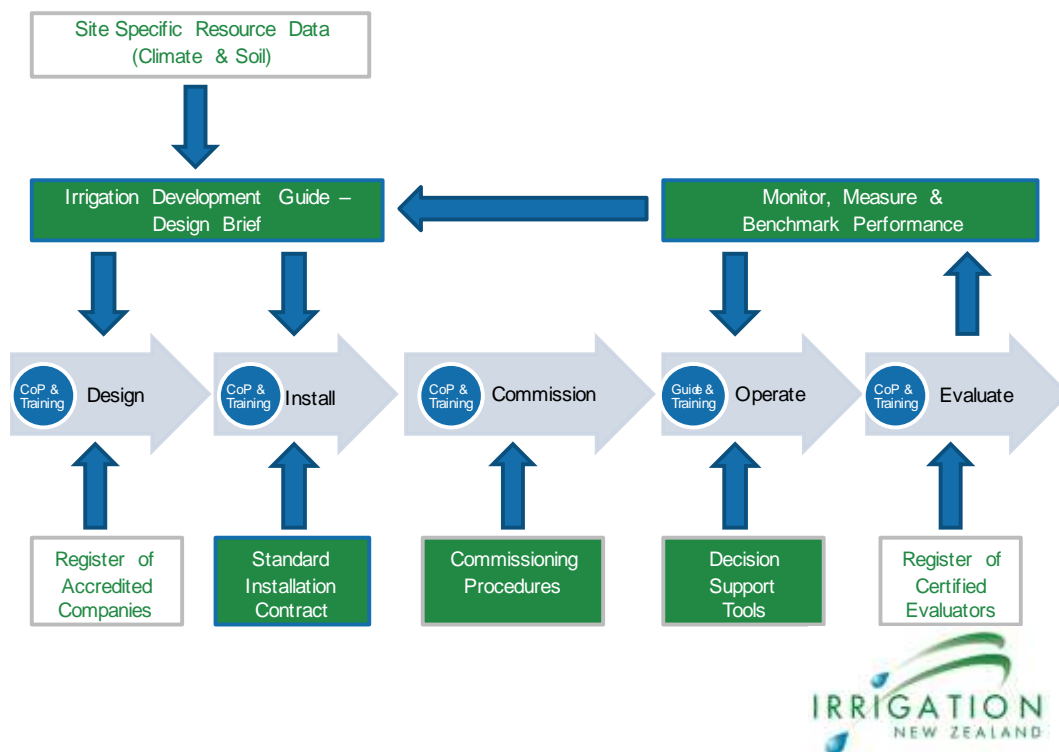


Figure A.1. INZ SMART Irrigation Framework

3. Code of Practice and Standards development in NZ

- 3.1 INZ learnt early-on that developing a list of prescriptive standards for irrigation was an impossible task. Irrigation system design and installation is dynamic (changes over time and space) and thus site specific. To attempt to produce an inclusive 'standards list' for every scenario is highly impractical. It would also result in an outcome that was not user-friendly. Instead the focus was placed on the process to be followed, moving through each of the steps of the design process and detailing the considerations and resulting decisions to be made. Having said this there were some areas identified where it was possible to define a universal number or narrative standard to be achieved, hence the production of an Irrigation Design Standards document.
- 3.2 Originally the INZ Design Code of Practice was one document with a comprehensive list of Key Performance Indicators. However during the 2012 review the decision was made to split the Design Code of Practice into a Code of Practice document that contained both Design Parameters (these form the remit for the designer – the design inputs) and Performance Indicators (these are measurable outputs from the design). The Design Standards document then selected Performance Indicators upon which a universal industry standard could be applied either numeric or narrative.

4. Outline for ICID Irrigation Codes of Practice and Standards development

- 4.1 INZ is willing to put forward its Codes of Practice and Standards as a 'strawman' upon which an ICID led project to develop an internationally recognised Irrigation Code of Practice and Standards could be based. In order for this to occur INZ would require inclusion in the project team. The NZ Codes of Practice and Standards are regarded as living documents. This recognises technology is ever evolving, and as increasing numbers of practitioners utilise them further knowledge and experience will be captured.
- 4.2 INZ accepts that the Code of Practice and Standards have been developed primarily with an agricultural spray and drip/micro focus, with amenity irrigation as a second priority. Surface irrigation is not included as the total area irrigated by such methods in NZ has rapidly reduced over the last decade, mainly due to the production gains from well-run spray based systems. Despite the above the format of each code of Practice has been well tested and would be nonsensical to deviate from. For example, there is little difference between spray, surface and amenity irrigation as regards the design process:
- (a) gather information;
 - (b) decide performance parameters;
 - (c) system design;
 - (d) final specification and quotation;
 - (e) implementation.



THREE YEAR ROLLING PLAN

| Item of Mandate | 2014 | 2015 | | | | 2016II | | | | 2017 | | | | Actor(s) |
|---|------|------|--|--|--|--------|--|--|--|------|--|--|--|---------------------------------------|
| Mailing of Minutes and Scoping Document to participants Inf. Meet. | | | | | | | | | | | | | | Convenor |
| Comments on Updated Scoping Document, subm. of information | | | | | | | | | | | | | | Participants informal meeting |
| Finalising Scoping Document and detailing of Workplan | | | | | | | | | | | | | | Convenor |
| Invitation to NC for nominations and information | | | | | | | | | | | | | | Central Office |
| Input to Theme 2.1.3 of WWF7 | | | | | | | | | | | | | | Participants informal meeting |
| Submission of nominations and information | | | | | | | | | | | | | | National Committees |
| 1st Meeting Montpellier | | | | | | | | | | | | | | Members and Permanent Observers |
| Exchange of information, knowledge, experience, networking | | | | | | | | | | | | | | Members and Permanent Observers |
| Condensed overview of key books, manuals, guidelines, etc. | | | | | | | | | | | | | | Members and Permanent Observers |
| Preparation and presentation of reports and/or case studies | | | | | | | | | | | | | | Members and Permanent Observers |
| Collect and review manuals, guidelines, codes of practice, etc. | | | | | | | | | | | | | | Members and Permanent Observers |
| Organise international workshop, seminar or symposium | | | | | | | | | | | | | | Some Members |
| 2nd Meeting in Chiang Mai, including Workshop | | | | | | | | | | | | | | Members and Permanent Observers |
| Prepare an overview paper on state of the art for publication in <i>IRD</i> . | | | | | | | | | | | | | | Some members |
| Formulation of recommendations | | | | | | | | | | | | | | Some Members |
| Position paper on key issues on modernization of irrigation schemes | | | | | | | | | | | | | | Chairperson, Vice-Chair and Secretary |
| 3rd Meeting in Mexico, including Workshop | | | | | | | | | | | | | | Members and Permanent Observers |

A. Membership of the WG-M&R³

| Sl. No. | Members | Member from | Remarks |
|---------|---------------------------------|-------------|---------|
| 1. | Dr. Dong Bin (China) | 2014 | |
| 2. | Mr. Vyacheslav Rozhon (Ukraine) | 2014 | |
| 3. | Mr. Mehrzad Ehsani (Iran) | 2014 | |
| 4. | Ir. Eko Subekti (Indonesia) | 2014 | |
| 5. | Secretary General, ICID | | |

B. New nominations received from the National Committees

| Sl. No. | Name | Country | Remarks |
|---------|---|----------------|--|
| 1. | Dr. Yohei SATO | Japan | Recommended subject to his presence or else Provisional Member |
| 2. | Mr. Bir Singh Dhami – Young Professional | Nepal | Recommended subject to his presence or else Provisional Member |
| 3. | Engr. Muhammad Sani Bala | Nigeria | Recommended subject to his presence or else Provisional Member |
| 4. | Mr. Alan Kendall Clark | UK | Recommended subject to his presence or else Provisional Member |
| 5. | Mr. Ian Makin – Permanent Observer (IWMI) | UK | Recommended as Permanent Observer ⁴ |
| 6. | Dr. Kwang-Sik Yoon | Korea, Rep. of | Recommended subject to his presence or else Provisional Member |
| 7. | Mr. Mohd Yazid bin Abdullah | Malaysia | Recommended subject to his presence or else Provisional Member |
| 8. | Ms. Meral Çiçek | Turkey | Recommended subject to her presence or else Provisional Member |
| 9. | Dr. Brian T. Wahlin | USA | Recommended subject to his presence or else Provisional Member |

³ Approved at 65th IEC held in September 2014 at Gwangju, Republic of Korea

⁴ Recommended as Permanent Observer as Mr. Alan Kendall Clark from same country (UK) is recommended as Member.

THREE-YEAR WORK PLAN OF THE GROUP

| Activity | 2015 | 2016 | 2017 |
|--|---|---|-------------|
| Input to Session 2.1.3 of WWF7 | ICID coordinated a Session 2.1.3 on Modernization of irrigation schemes, along with KRC in April 2015, Republic of Korea President Dr. Nairizi held a discussion with TUCID on preparation of paper on status of modernization | | |
| Exchange of information, knowledge, experience, networking | | | |
| Condensed overview of key books, manual, guidelines etc. | | | |
| Preparation and presentation of reports and/ or case studies | | | |
| Collect and review manuals, guidelines, codes of practice, etc. | | | |
| Organize international workshop, seminar or symposium | | Symposium on irrigation modernization in collaboration with other sectors | |
| Prepare an overview paper on state of the art for publication in IRD | | | |
| Position paper on key issues on modernization of irrigation schemes | | | |

ACTIONS TO BE IMPLEMENTED UNDER EACH OBJECTIVE FOR THE NEXT 3 YEARS

| Theme | Objective | Action | Time Frame | Leading Member |
|--------------|------------------|---|-------------------|--|
| 2.1 | 2.1.a | Data and information on the current and future sustainable production potential of the world's natural resource base, including the gap with current yields, under changing socio-economic and environmental conditions | 01.2014-12.2015 | FAO |
| | 2.1.b | Support to improve access of poor rural producers and households to appropriate technologies and knowledge, inputs and markets. | 01.2014-12.2015 | FAO |
| | 2.1.c | | mm.20xx-mm.20xx | |
| | 2.1.d | | mm.20xx-mm.20xx | |
| | 2.1.e-1 | On the occasion of ICID 66th International Irrigation Council (IEC), establish an ICID Task Force on "Monitoring actions after WWF7" and appoint a coordinator for forwarding actions on irrigation modernization and develop inputs to WWF8. | 10.2015-03.2018 | ICID Permanent Observers (POs) nominated from International Organizations |
| | 2.1.e-2 | In November 2016, on the occasion of 2nd World Irrigation Forum (WIF) and 67th IEC in Thailand, hold a symposium on irrigation modernization in collaboration with other sectors inviting international organizations and representative of other water sectors. | 11.2016 | ICID Permanent Observers (POs) nominated from International Organizations |
| | 2.1.e-3 | In October 2017, on the occasion of ICID 23rd Congress and 68th IEC in Mexico, release an appeal on Modernization irrigation to policy-makers and decision-makers of governments, private sectors and international financial institutions and formulate inputs to the next WWF8 in 2018. | 10.2017-03.2018 | ICID Permanent Observers (POs) nominated from International Organizations |
| | 2.1.e-4 | In October 2015, on the occasion of ICID 66th International Executive Council (IEC) in France, establish an ICID Working Group on "modernization and revitalization of irrigation schemes" and develop a scoping document. | 10.2015 | ICID Permanent Observers (POs) nominated from International Organizations |
| | 2.1.e-5 | Commence to work together with international organizations and other institutions such as FAO, IWMI, ICARDA, ICBA, IFAD, ICOLD, IHA, ADB, AFDB, IADB, WB, WWC and universities. | 10.2015-10.2021 | ICID Permanent Observers (POs) nominated from International Organizations |
| | 2.1.e-6 | In November 2016, on the occasion of 2nd World Irrigation Forum (WIF) and 67th IEC in Thailand, hold an international workshop on new developments in irrigation modernization technology in collaboration with other sectors. | 11.2016 | ICID Permanent Observers (POs) nominated from International Organizations |

| Theme | Objective | Action | Time Frame | Leading Member |
|-------|-----------|--|--------------------------------------|--|
| | 2.1.e-7 | In October 2017, on the occasion of ICID 23rd Congress and 68th IEC in Mexico, discuss standards and codes of practice associated with irrigation design, installation and evaluation to address socio-economic and environmental effects. | 10.2017 | ICID Permanent Observers (POs) nominated from International Organizations |
| | 2.1.e-8 | In 26th ERC, make a report on climate change adaptation through improvement of irrigation performances in Europe to contribute toward the COP 21 in Paris, November-December 2015. | 10.2015-12.2015 | ICID Permanent Observers (POs) nominated from International Organizations |
| | 2.1.e-9 | In ICID 67th IEC, make and disseminate a report on Water Management in a changing world: Role of irrigation for sustainable food production, and Asian case study. | 10.2015-11.2016 | ICID Permanent Observers (POs) nominated from International Organizations |
| | 2.1.e-10 | In ICID 23rd Congress and 68th IEC in Mexico, make and disseminate a report on Modernization irrigation/drainage for a new Green Revolution including application to American continent. | 11.2016-10.2017 | ICID Permanent Observers (POs) nominated from International Organizations |
| | 2.1.e-11 | Organize a photo exhibition/contest with the theme of: "Innovate to improve irrigation performances". | 10.2015 | ICID WG Interested young experts |
| | 2.1.e-12 | Organize a side event on the theme of: "Modernization of irrigation/drainage schemes" | 11.2016 | ICID WG Interested young experts |
| | 2.1.e-13 | Organize and publish an event on the theme of: "Innovations in irrigation/drainage" | 11.2016-10.2017 | ICID WG Interested young experts |
| | 2.1.e-14 | Create Awareness on irrigation policy, Act and regulations to stakeholders. | 07.2015-12.2016 | Tanzanian National Committee of ICID |
| | 2.1.e-15 | Encourage Tanzanian Government to make decision on necessary investments in irrigation modernization | 01.2016-11.2018 | Tanzanian National Committee of ICID |
| | 2.1.e-16 | Establish National Irrigation Research Center | 07.2015-12.2016 | Tanzanian National Committee of ICID |
| | 2.1.e-17 | Strengthen institutions responsible for irrigation and drainage research and development | 01.2016-06.2018 | Tanzanian National Committee of ICID |
| | 2.1.e-18 | Contribute to ICID Working Group of modernization | 10.2015-10.2017 | Korean National Committee of ICID |
| | 2.1.e-19 | Encourage modernization for agricultural water efficiency focusing on paddy farming in Asia | 11.2015-03.2018 | Korean National Committee of ICID |
| | 2.1.e-20 | Organize two symposiums and two meetings gathering INWEPF member in Asian countries to share the outcomes till then. | 05.2016, 11.2016 05.2017, 11.2017 | Korean National Committee of ICID |

| Theme | Objective | Action | Time Frame | Leading Member |
|-------|-----------|---|---------------------------|--|
| | 2.1.e-21 | Combine the activity in ICID and in INWEPF. | 11.2015-10.2017 | Korean National Committee of ICID |
| | 2.1.e-22 | Organize international seminar to share and discuss experience on irrigation modernization in collaboration with International Network for Water and Ecosystem in Paddy Fields (INWEPF) | 04.2015-10.2017 | Japanese National Committee of ICID INWEPF member countries |
| | 2.1.e-23 | Hold mentor program for young professionals to transfer knowledge and experience to young irrigation experts. | 04.2015-10.2017 | Japanese National Committee of ICID INWEPF member countries |
| | 2.1.e-24 | Investigate organization reform for effective agricultural water management. | 05.2015-06.2016 | KSAE |
| | 2.1.e-25 | Prepare guidelines and standards for effective organization reform plan. | 05.2016-04.2017 | KSAE KSAE |
| | 2.1.e-26 | Disseminate the study result for action. | 05.2017-03.2018 | KSAE |
| | 2.1.e-27 | Hold a special session in PAWEES 2015, 2016 and 2017 conference. | 10.2015, 10.2016, 10.2017 | PAWEES |
| | 2.1.e-28 | Investigate varied financial options for modernization and renovation. | 06.2016-03.2018 | State Hydraulic Works (DSI) TURKEY |
| | 2.1.e-29 | Prepare road map to WUOs for modernization process and afterwards. | 06.2016-03.2018 | State Hydraulic Works (DSI) TURKEY |
| | 2.1.e-30 | Boost WUOs irrigation management capacity by training programs. | 01.2016-03.2018 | State Hydraulic Works (DSI) TURKEY |
| | 2.1.f-1 | Integrated and multi-sectoral approaches for ecosystem valuation, management and restoration are identified, assessed, disseminated and their adoption by stakeholders is facilitated | 01.2014-12.2015 | FAO |
| | 2.1.f-2 | Countries are supported to analyse governance issues and options for sustainable agricultural production and natural resources management. | 01.2014-12.2015 | FAO |
| | 2.1.f-3 | Improving capacities to formulate and promote risk reduction and crisis management policies, strategies and plans. | 01.2014-12.2015 | FAO |
| | 2.1.f-4 | Analytical assessments of status and trends of biotic and a-biotic resources, use of these resource, use of production inputs, and outputs; disaggregated by gender as far as possible | 01.2014-12.2015 | FAO |
| | 2.1.g-1 | Support to strengthen rural organizations and institutions and facilitate empowerment of rural poor. | 01.2014-12.2015 | FAO |

| Theme | Objective | Action | Time Frame | Leading Member |
|--------------|------------------|---|-------------------|-----------------------|
| | 2.1.g-2 | Support to the promotion and implementation of pro-poor approaches to policies and programmes which improve access to and sustainable management of natural resources. | 01.2014-12.2015 | FAO |
| | 2.1.h-1 | Organizational and institutional capacities of public and private institutions, organizations and networks are strengthened to support innovation and the transition toward more sustainable agricultural production systems. | 01.2014-12.2015 | FAO |
| | 2.1.h-2 | Countries are supported to strengthen national governance frameworks that foster sustainable agricultural production and natural resources | 01.2014-12.2015 | FAO |



**AGENDA FOR THE 20TH MEETING OF THE
WORKING GROUP ON USE OF POOR QUALITY WATER FOR IRRIGATION (WG-PQW)**

14 October 2015, 14.00-15.30 hours

Montpellier, France

Strategy Theme: On-Farm

Presented by the Chairman

Year of Establishment: 1995

Completion of the Mandate: 2016

Mandate: To promote a safe and good management of poor quality water for irrigation, to minimize the negative impact on human health and the environment, to promote the multiple use of poor quality water, and to give consideration to the institutional and legislation aspects with regard to the use of poor quality waters.

Website: <http://wg-pqw.icidonline.org/>

WG-PQW Agenda Item 1: Action taken report by Chair

1. The Chair may like to present a report on the actions taken on the decisions and proposals made in the last WG meeting held at Gwangju, Korea.

WG-PQW Agenda Item 2: Review of the membership of the working group

2. In order to increase the efficiency and functioning of the Working Group during annual face to face meeting and avoid spending a lot of time on administrative matters, MB has decided that the admission of new members or discontinuation of the membership of the group will be dealt by Chairman in consultation with Vice Chair, Secretary and ICID Central Office prior to the meeting itself through emails/ web conference.

SUPP.: Jain Irrigation Systems Limited (JISL) has recently joined ICID as Direct Member and has nominated Mr. S.K. Deshmukh (India) for the membership of the group. CV is yet to be received.

3. The existing membership of the WG can be seen in **Annex** (see the electronic version for the latest list). Any new nominations for the membership received during the meeting will be dealt suitably after the meeting.

WG-PQW Agenda Item 3: Country presentations by members

4. Country presentations on experiences in water treatment for rural communities were invited from China, Japan, Malaysia and Egypt. In response, Dr. Kunlun (China) has consented to make a presentation on "A case study: Treated wastewater for irrigation in China" during the meeting. Chairperson informed the Central Office that Dr. Ashraf (Egypt) and herself will also make a presentation.

Chair may like to apprise the group.

WG-PQW Agenda Item 4: Publications of the working group

5. In order to publish a Technical Paper of the WG, the following papers have been invited: (a) "Impact of Irrigation by saline water on soil and crop production" by Dr. Anna Tedeschi (Italy); (b) "Impact of tsunami on farmland and the progress of rehabilitation after the great Japan earthquake" by Dr. Takanori Nagano (Japan); (c) "The use of poor quality water and the new biofuel crops" by Dr. Tapas Biswas (Australia); (d) "Mitigation of subsurface drainage pesticide pollution by use of pipe constructed wetlands" by Dr. Bernard Vincent (France) and (e) "Irrigation by using poor quality water" by Dr. Leon van Rensburg (South Africa). Papers at (a) and (b) have since been received but other papers are awaited.

Members and Chair may like to provide further updates on these technical papers in the meeting.

WG-PQW Agenda Item 5: Exchange of information (WebEx/video conferencing)

6. As a new initiative, at the 65th IEC meeting held at Gwangju in September 2014, it was decided that the Working Groups should organize a WebEx meeting or a video-conference in between two face to face meetings during the IEC in order to enable the group to take a view of the progress made of their activities and at the same time allow contributions from those members who were unable to attend the meetings. During the last year, a number of

workbodies availed of this opportunity. Chair may like to plan (date) such a meeting in consultation with Central Office. The Central Office will then take over and do the rest of the organization at no cost and efforts on part of WG members. They have to simply make themselves available on the decided date and time.

WG-PQW Agenda Item 6: Updating Multilingual Technical Dictionary (MTD)

7. At the 65th IEC, it was decided that ICID Central Office bring out an online version of the MTD and make it available through ICID website. In this connection, Central Office is collecting the terms available with different NC in their respective languages, based on 2010 version of MTD. PCTA would be discussing the issue of revision of the MTD, pruning down the chapters and concentrating on the chapters that are within the expert purview of ICID. [Refer **Agenda Item 4 of PCTA**]

8. PCTA would require a feedback from each of the WGs as to how they plan to review / update the terms that fall within their respective scope of activities. WGs may discuss this issue and provide the required input to PCTA. To achieve this goal, it is proposed to undertake the concerned terms by the respective Working Group depending on their domain of expertise suggesting changes / modification and addition of new terms, contributing pictures, links and videos related to respective term.

WG-PQW Agenda Item 7: Website of the working group

9. In order to update website of WG (<http://wg-pqw.icidonline.org/>) by ICID Central Office, members are requested to provide additional material/ documents/ reports/ articles for its posting on the group's website.

WG-PQW Agenda Item 8: Closure report in 2016

10. Since the current tenure of the WG is up to 2016, it is envisaged to prepare a closure report by the next meeting in Chiang Mai, Thailand. In case the WG decides to renew the WG beyond 2016, a Scoping Document would need to be prepared and presented in the meeting at Chiang Mai, Thailand.

The group may like to discuss and decide as appropriate at the meeting.

WG-PQW Agenda Item 9: Round table discussion on the reuse of treated sewage water

11. Noting that reuse is a complex and an eminently multi-actors issue requiring adaptations to the local context, a Multi-stakeholders roundtable on "Wastewater reuse in agriculture: Time for Solutions!" is being organized on 13 October 2015 from 14.00-17.30 hours at Montpellier. The roundtable is planned to address the issues of the reuse of wastewater in agriculture with an integrated and "solutions" oriented approach. Articulating inspiring experiences will be presented to illustrate as to how to overcome the obstacles in agricultural reuse projects. The objective is also to contextualize these "solutions" to specify whether their application is general or specific to a particular climate, regulatory, economic or social context. Dr. Ding Kunlun (China) has consented to contribute a paper on wastewater use for irrigation in China. All members are invited to actively participate in the Roundtable.

Chair may like to present a brief on the roundtable at the meeting.

WG-PQW Agenda Item 10: Any other business



NOTES FOR CHAIRPERSON:

1. Draft minutes of this meeting to be submitted to ICID Secretariat at Montpellier (France) after the meeting.
2. Chair to participate and present the WG report to PCTA meeting on 15 October 2015.

Attendance of Members at 2013 and 2014 Meetings

| Sl. No. | Members | Member from | 2013 | | 2014 | | Remarks |
|---------------------------|--|-------------|----------------|---------------------|------|---------------------|--|
| | | | Self | Contributed by mail | Self | Contributed by mail | |
| 1. | VPH Dr. Samia El-Guindy, Chair, 2011 (Egypt) | 1999 | | | • | | |
| 2. | Dr. Anna Tedeshi, Secretary (Italy) | 2011 | | • | | | |
| 3. | VPH Dr. R. Ragab (UK) | 1997 | • | | | • | |
| 4. | VPH Dr. Karim Shiasi (Iran) | 1997 | • | | | | |
| 5. | Mr. Bernard Vincent (France) | 2003 | | | | | No contribution during last two years, recommended for discontinuation |
| 6. | Dr. Leon van Rensburg (South Africa) | 2010 | • | | | | |
| 7. | Dr. Takanori Nagano (Japan) | 2011 | # ¹ | • | • | | |
| 8. | Dr. Ding Kurlun (China) | 2012 | • | | • | | |
| 9. | Dr. Tapas Kumar Biswas (Australia) | 2012 | | | | | Contributed in 2015 |
| 10. | Secretary General, ICID | | | | # | | |
| Permanent observer | | | | | | | |
| (i) | FAO Representative | | | | | | |
| (ii) | ICBA Representative (UAE) | | | | | | |

B. New nomination received from the Direct Member

| Sl. No. | Name | Country | Remarks |
|---------|---|---------|--|
| 1. | Dr. S.K. Deshmukh – Direct Member, JISL | India | Recommended subject to his presence or else Provisional Member |

¹ #Through representation

APPENDIX XXVI [PCTA Item 9.1]

**AGENDA FOR THE 2ND MEETING OF THE
WORKING GROUP ON SUSTAINABLE DRAINAGE (WG-SDG)**

14 October 2015, 14.00-15.30 hours
Montpellier, France

Strategy Theme: Scheme

Presented by the Chairman

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.

WG-SDG Agenda Item 1: Introduction by the Chair

1. Chairman may like to introduce the group and present a brief report of the progress of group's activities after the Gwangju meeting held in September 2014.

WG-SDG Agenda Item 2: Membership of the working group

2. In order to increase the efficiency and functioning of the Working Group during annual face to face meeting and avoid spending a lot of time on administrative matters, Management Board (MB) has decided that the admission of new members or discontinuation of the membership of the group will be dealt by Chairman in consultation with Vice Chair, Secretary and ICID Central Office prior to the meeting itself through emails/ web conference.

3. Vide ICID's notification no.7 of 2015 dated 26 May 2015, all National Committees were informed about the re-establishment of the WG-SDG and invited nominations for the WG. In response, Nepal National Committee (NENCID) has nominated Mr. Krishna Prasad Rijal (as *Young Professional*) for the membership of the new WG. In June 2015, Egyptian National Committee (ENCID) has reconfirmed the nomination of Dr. Ashraf El Sayed Ismail for the membership of the new WG. Iranian National Committee (IRNCID) has reconfirmed the nomination of Mr. Ardavan Azari for the membership of the new WG. Accordingly, Chairman in consultation with Vice Chair, Secretary of the WG and the Central Office have updated membership of the WG as given at **Annex 1** (*see the electronic version for the latest list*). Any new nominations for the membership received during the meeting will be dealt suitably after the meeting.

4. Prof. Ir. Robiyanto Hendro Susanto (Indonesia) and Prof. (Ms.) Kyung-Sook Choi (Republic of Korea)¹ were accepted as Provisional Member at Gwangju in 2014. In May 2015, both were requested to actively participate in the activities of the WG through email or video-conference and both confirmed their active participation in the activities of the WG.

SUPP.: Finland National Committee (FINCID) has reconfirmed the nomination of Ms. Helena Aijo for the membership of the group. Netherlands National Committee (NETHCID) has nominated Dr. Henk Ritzema for the membership of the WG.

Jain Irrigation Systems Limited (JISL) has recently joined ICID as Direct Member and has nominated Mr. Yeolkar (India) for the membership of the group. CV is yet to be received.

WG-SDG Agenda Item 3: Development of a rolling work-plan

5. The Working Group was established for a six-year period with retrospective effect from 2013 (IEC resolution 3/65). In order to take forward activities, WG will prepare a rolling work plan for a three-year period. Chairman may like to discuss and finalise a three-year work plan at the meeting.

¹ Prof. (Ms.) Choi has provided the updated datasheet in respect of Republic of Korea

WG-SDG Agenda Item 4: Report on Contribution to the website DRAINLINE/ LinkedIn Agricultural Drainage Group

6. The drainage section on the revised ICID website http://www.icid.org/res_drainage.html is fully functional. Some news items related to drainage were extracted from the weekly e-Bulletins, monthly News Updates, and quarterly ICID News and posted on the WG webpage DRAINLINE http://www.icid.org/wg_drg.html. Members are requested to review the contents and provide input and valuable suggestions to improve it further. Members are also requested to share the relevant material, links and documents related to mandate of the WG to the ICID Central Office for its posting on group's website and also dissemination through LinkedIn drainage group.

7. Chair may like to discuss further actions in this regard at the meeting.

WG-SDG Agenda Item 5: International Workshop on “Future of drainage under environmental challenges and emerging technologies”, October 2015, Montpellier

8. International Workshop on the theme “*Future of drainage under environmental challenges and emerging technologies*” will be held on 13 October 2015 from 14.00-17.30 hours at Montpellier. Chair may like to provide the brief report/ outcome of the workshop. The Chair may also like to assign one of the members of the group to prepare an article on ‘Future of drainage under environmental challenges and emerging technologies’ for ICID News.²

WG-SDG Agenda Item 6: Compilation of experiences in bio-drainage and bio-saline agriculture

9. During 2013 Mardin (Turkey) meeting Dr. Gurbachan Singh (India) agreed to prepare a publication on bio-drainage based on experiences in India. Dr. Gurbachan Singh informed that a draft of the publication is expected to be ready by September 2015 and will be presented and discussed in the Montpellier meeting in October 2015.

10. Chairman/ Dr. Singh will provide further status on the publication.

WG-SDG Agenda Item 7: Updating database on ‘Drained area in the world’

11. The “World Drained Area” database was considerably updated and the latest/ revised database is given at **Annex 2**. National Committees are requested to continuously update and send the updated data to ICID Central Office.

WG-SDG Agenda Item 8: Updating Multilingual Technical Dictionary (MTD)

12. At the 65th IEC, it was decided that ICID Central Office bring out an online version of the MTD and make it available through ICID website. In this connection, Central Office is collecting the terms available with different NC in their respective languages, based on 2010 version of MTD. PCTA would be discussing the issue of revision of the MTD, pruning down the chapters and concentrating on the chapters that are within the expert purview of ICID [Refer **Agenda Item 4 of PCTA**].

13. PCTA would require a feedback from each of the WGs as to how they plan to review / update the terms that fall within their respective scope of activities. WGs may discuss this issue and provide the required input to PCTA. To achieve this goal, it is proposed to undertake the concerned terms by the respective Working Group depending on their domain of expertise suggesting changes / modification and addition of new terms, contributing pictures, links and videos related to respective term.

WG-SDG Agenda Item 9: 13th International Drainage Workshop, March 2017, Ahvaz City, Iran

14. The Iranian National Committee of ICID (IRNCID) is organizing the 13th International Drainage Workshop (IDW) on the theme “Drainage and Environmental Sustainability” in March 2017 at Ahvaz city, Iran. The topics proposed for the IDW are – (1) Measures to lower volume of drainage water; (2) Measures to improve drainage water quality; (3) Adaptation of new design criteria in favor of the environment; and (4) Application of alternative drainage methods.

² Articles in ICID News are generally targeted at non-expert audience including policy makers

15. IRNCID was suggested to consult the Chair of WG-SDG about the theme and sub-themes of the workshop and to constitute a Technical Advisory Committee consisting of members from Iran as well as experts from the WG to chalk out the technical activities for organizing the workshop. Accordingly, Mr. Ardavan Azari (Iran) has contacted the Chair and requested his comments on the theme and sub-themes. IRNCID has proposed that the duration of the workshop will be for 4 days. The group may like to discuss it during the meeting and may propose for 3 days instead of 4 days.

16. WG may consider the themes and sub-themes of the 13th IDW and recommend them to PCTA for approval.

WG-SDG Agenda Item 10: Any other business



NOTES FOR CHAIRPERSON:

1. Draft minutes of this meeting to be submitted to ICID Secretariat at Montpellier (France) after the meeting.
2. Chair to participate and present the WG report to PCTA meeting on 15 October 2015.

Annex 1 [Appendix XXVI, Item 2]

A. Attendance of members at 2013 and 2014 meetings

| SI No. | Members | Member from | 2013 | | 2014 | | Remarks |
|--------|---|-------------|----------------|---------------------|------|---------------------|--|
| | | | Self | Contributed by mail | Self | Contributed by mail | |
| 1. | Mr. Bernard Vincent, Chairman (France) | 2013 | | | | • | |
| 2. | Dr. Momon Sodik Imanudin, Vice Chairman (Indonesia) | 2013 | • | | | | |
| 3. | Dr. Irena Bondarik, Secretary (Russia) | 2013 | | | • | | |
| 4. | Dr. James Ayars (USA) | 2013 | | • | | | |
| 5. | VPH Prof. Brane Maticic (Slovenia) | 2013 | | | | • | |
| 6. | Mr. Chen Hung-Kwai (Chinese Taipei) | 2013 | • | | | | |
| 7. | Dr. M.N. Bhutta (Pakistan) | 2013 | | | | | No contribution during last 2 years, recommended for discontinuation |
| 8. | Mr. AT van Coller (South Africa) | 2013 | # ³ | | | | |
| 9. | Ms. Nurgul Uzucek (Turkey) | 2013 | • | | | | |
| 10. | VPH Shinsuke Ota (Japan) | 2013 | • | | | | |
| 11. | Dr. Yuri Yanko (Russia) | 2013 | # | | | | |
| 12. | Dr. Gurbachan Singh (India) | 2013 | • | | | • | |
| 13. | Mr. Mati Tonismae (Estonia) | 2013 | • | | | | |
| 14. | Mr. Ardavan Azari (Iran) | 2013 | • | | • | | |
| 15. | Ms. Helena Aijo (Finland) | 2013 | • | | | | |
| 16. | Dr. Ashraf El Sayed Ismail (Egypt) | 2013 | | • | • | | |
| 17. | Ms. Wang Shaoli (China) | 2013 | • | | • | | |
| 18. | Engr. Mohd Anuar Musardar bin Yusoff (Malaysia) | 2013 | • | | • | | |
| 19. | Prof. (Ms.) Kyung-Sook Choi (Korea, Republic of) | 2014 | | | | • | Provided the updated datasheet in 2015 |
| 20. | Dr. Hajime Tanji (Japan) | 2014 | | | • | | |
| 21. | Prof. Ir. Robiyanto Hendro Sustanto (Indonesia) | 2014 | | | | | |
| 22. | Secretary General, ICID | | # | | # | | |

³ # Through representation

B. New nomination received from the National Committees/ Direct Member

| Sl. No. | Name | Country | Remarks |
|----------------|--|----------------|--|
| 1. | Mr. Krishna Prasad Rijal (as <i>Young Professional</i>) | Nepal | Recommended subject to his presence or else Provisional Member |
| 2. | Dr. Henk Ritzema | Netherlands | Recommended subject to his presence or else Provisional Member |
| 3. | Mr. Yeolkar – Direct Member, JISL | India | Recommended subject to his presence or else Provisional Member |

WORLD DRAINED AREA

| Sl. No. | Country | Arable land and permanent crops (million ha) | Total drained area (million ha) | % drained area | Reference year |
|--|--------------------------------|--|---------------------------------|----------------|-------------------|
| Developed Countries | | | | | |
| 1 | Australia | 44.37 | 2.17 | 4.89 | 2002 ² |
| 2 | Austria | 1.44 | 0.2 | 13.89 | 1997 ² |
| 3 | Belgium | 0.87 | 0.07 | 8.05 | 1996 ² |
| 4 | Bulgaria | 3.25 | 0.08 | 2.46 | 2000 ² |
| 5 | Canada | 67.5 | 9.46 | 14.01 | 2002 ² |
| 6 | Cyprus | 0.11 | 0.02 | 18.18 | 2000 ² |
| 7 | Czech Rep. | 3.26 | 1.07 | 32.82 | 2011 ¹ |
| 8 | Denmark | 2.35 | 1.77 | 50.00 | 2012 ¹ |
| 9 | Estonia | 1.33 | 0.64 | 48.00 | 2013 ¹ |
| 10 | Finland | 2.26 | 2.5 | 110.62 | 2008 ¹ |
| 11 | France | 19.33 | 3.00 | 15.52 | 2011 ¹ |
| 12 | Germany | 12.13 | 4.9 | 40.40 | 1993 ² |
| 13 | Greece | 3.23 | 0.52 | 16.10 | 2002 ² |
| 14 | Hungary | 4.8 | 2.3 | 47.92 | 2003 ¹ |
| 15 | Ireland⁴ | 1.06 | 0.254 | 23.96 | 2010 ¹ |
| 16 | Italy | 13.2 | 5.3 | 40.15 | 2005 ¹ |
| 17 | Japan | 4.54 | 3.52 | 77.53 | 2013 ¹ |
| 18 | Latvia | 1.18 | 1.58 | 133.90 | 1995 ² |
| 19 | Lithuania ⁵ | 2.68 | 2.58 | 96.27 | 2011 ¹ |
| 20 | Netherlands⁶ | 1.09 | 3.0 | 275.23 | 2010 ¹ |
| 21 | Norwegian | 1.02 | 0.61 | 60 | 2012 ¹ |
| 22 | Poland | 12.97 | 4.21 | 32.46 | 1999 ² |
| 23 | Portugal | 1.64 | 0.04 | 2.44 | 2002 ² |
| 24 | Romania | 9.85 | 1.83 | 18.58 | 2008 ¹ |
| 25 | Slovak Republic | 1.41 | 0.6 | 42.55 | 1997 ² |
| 26 | Slovenia | 0.2 | 0.08 | 40.00 | 2007 ¹ |
| 27 | Spain | 24.90 | 0.3 | 1.205 | 2014 ² |
| 28 | Sweden | 2.64 | 1.1 | 41.67 | 1996 ² |
| 29 | Switzerland | 0.43 | 0.16 | 37.21 | 2002 ² |
| 30 | UK | 6.05 | 4.65 | 76.86 | 1996 ² |
| 31 | USA | 173.2 | 47.5 | 27.42 | 1987 ² |
| | Sub-Total | 424.3 | 106.014 | 24.98 | |
| Emerging / Developing Countries | | | | | |
| 32 | Albania | 0.7 | 0.28 | 40.00 | 1999 ² |
| 33 | Algeria | 8.42 | 0.06 | 0.71 | 1999 ² |
| 34 | Argentina | 33.0 | 0.13 | 0.40 | 2002 ² |

| Sl. No. | Country | Arable land and permanent crops (million ha) | Total drained area (million ha) | % drained area | Reference year |
|---------|-----------------------|--|---------------------------------|----------------|-------------------|
| 35 | Azerbaijan | 2.09 | 0.61 | 0.29 | 2013 ¹ |
| 36 | Belarus | 5.64 | 3.0 | 53.19 | 1993 ² |
| 37 | Bolivia | 3.82 | 0.02 | 0.52 | 2000 ² |
| 38 | Brazil | 66.9 | 1.08 | 1.61 | 2013 ¹ |
| 39 | Chile | 0.78 | 0.035 | 4.49 | 2006 ¹ |
| 40 | China | 130.03 | 21.14 | 16.26 | 2008 ¹ |
| 41 | Chinese Taipei | 0.80 | 0.13 | 16.25 | 2012 ¹ |
| 42 | Colombia | 3.46 | 0.23 | 6.65 | 1989 ² |
| 43 | Costa Rica | 0.5 | 0.04 | 8.00 | 1999 ² |
| 44 | Croatia | 0.95 | 0.76 | 80.00 | 1990 ² |
| 45 | Cuba | 3.97 | 0.33 | 8.31 | 1997 ² |
| 46 | Dominican Rep. | 1.30 | 0.03 | 2.31 | 2000 ² |
| 47 | Ecuador | 2.50 | 0.05 | 2.0 | 1998 ² |
| 48 | Egypt* | 3.54 | 3.36 | 85.31 | 2011 ³ |
| 49 | El Salvador | 0.92 | 0.01 | 1.09 | 1997 ² |
| 50 | Fiji Island | 0.25 | 0.01 | 4.00 | 2000 ² |
| 51 | Georgia | 0.58 | 0.16 | 27.59 | 1996 ² |
| 52 | Guyana | 0.45 | 0.15 | 33.33 | 1991 ² |
| 53 | Honduras | 1.43 | 0.06 | 4.20 | 1991 ² |
| 54 | India | 169.32 | 5.8 | 3.43 | 1991 ² |
| 55 | Indonesia | 37.10 | 3.35 | 9.03 | 1990 ² |
| 56 | Iran | 14.8 | 0.28 | 1.89 | 2015 ¹ |
| 57 | Iraq | 5.45 | 1.54 | 28.26 | 2002 ² |
| 58 | Israel | 0.38 | 0.1 | 26.32 | 1987 ² |
| 59 | Jordan | 0.15 | 0.01 | 6.67 | 2008 ³ |
| 60 | Kazakhstan | 22.8 | 0.45 | 1.97 | 2013 ¹ |
| 61 | Kenya | 5.8 | 0.03 | 0.52 | 2003 ² |
| 62 | Korea Rep. | 1.82 | 1.15 | 63.19 | 2007 ¹ |
| 63 | Kyrgyzstan | 1.35 | 0.20 | 14.81 | 2013 ¹ |
| 64 | Lebanon | 0.29 | 0.01 | 3.45 | 2001 ² |
| 65 | Libya | 2.05 | 0.01 | 0.49 | 2000 ² |
| 66 | Malaysia | 9.5 | 6.0 | 63.16 | 2009 ¹ |
| 67 | Mexico | 27.50 | 5.2 | 18.91 | 1997 ² |
| 68 | Mongolia | 0.85 | 1.5 | 176.47 | 2000 ² |
| 69 | Morocco | 8.98 | 0.65 | 7.24 | 2004 ² |
| 70 | Pakistan | 30.40 | 7.86 | 25.85 | 2013 ¹ |
| 71 | Paraguay | 4.3 | 0.01 | 0.23 | 2000 ² |
| 72 | Peru | 4.44 | 0.08 | 1.80 | 2000 ² |
| 73 | Philippines | 9.16 | 2.72 | 29.69 | 2008 ¹ |

| Sl. No. | Country | Arable land and permanent crops (million ha) | Total drained area (million ha) | % drained area | Reference year |
|----------------------------------|---------------------|--|---------------------------------|----------------|-------------------|
| 74 | Puerto Rico | 0.1 | 0.02 | 20.00 | 2000 ² |
| 75 | Russia | 192.6 | 4.78 | 2.48 | 2007 ¹ |
| 76 | Saudi Arabia | 3.68 | 0.04 | 1.09 | 1992 ² |
| 77 | Serbia & Montenegro | 3.72 | 0.4 | 10.75 | 2000 ² |
| 78 | South Africa | 18.00 | 0.06 | 0.41 | 2011 ¹ |
| 79 | Sri Lanka | 2.20 | 0.03 | 1.36 | 1967 ² |
| 80 | Surinam | 0.06 | 0.05 | 83.33 | 1998 ² |
| 81 | Syria | 5.68 | 0.27 | 4.75 | 1993 ² |
| 82 | Tajikistan | 0.87 | 0.33 | 37.93 | 2013 ¹ |
| 83 | Thailand | 18.85 | 0.16 | 0.85 | 1997 ² |
| 84 | Tunisia | 5.04 | 0.2 | 3.97 | 2000 ² |
| 85 | Turkey | 26.01 | 3.43 | 13.19 | 2012 ¹ |
| 86 | Turkmenistan | 1.92 | 1.1 | 57.29 | 2013 ¹ |
| 87 | Ukraine | 33.5 | 3.3 | 9.85 | 2013 ¹ |
| 88 | Uzbekistan | 4.7 | 3.3 | 70.21 | 2014 ¹ |
| 89 | Venezuela | 3.35 | 0.31 | 9.25 | 2002 ² |
| 90 | Viet Nam | 9.42 | 1.0 | 10.62 | 1994 ² |
| 91 | Zimbabwe | 11.00 | 0.1 | 0.90 | 2011 ¹ |
| | Sub-Total | 969.17 | 87.505 | 9.03 | |
| Least Developed Countries | | | | | |
| 92 | Afghanistan | 7.91 | 0.01 | 0.13 | 2000 ² |
| 93 | Bangladesh | 8.70 | 1.5 | 17.24 | 1993 ² |
| 94 | Ethiopia | 14.51 | 0.03 | 0.21 | 1987 ² |
| 95 | Madagascar | 3.55 | 0.11 | 3.10 | 2000 ² |
| 96 | Malawi | 7.7 | NA | - | 2002 ¹ |
| 97 | Myanmar | 11.70 | 0.19 | 1.62 | 1994 ² |
| 98 | Nepal | 2.47 | 0.09 | 3.64 | 2000 ² |
| 99 | Rwanda | 1.57 | 0.09 | 5.73 | 2000 ² |
| 100 | Sudan | 20.91 | 0.56 | 2.68 | 2000 ² |
| 101 | Yemen | 1.61 | 1.5 | 93.17 | 2000 ² |
| | Sub-Total | 80.63 | 4.08 | 5.06 | |

*Countries shown in bold are active members of ICID

(a) Type of Country⁷

| Summary | | | | |
|---------|-------------------------------|--|---------------------------------|----------------|
| Sl. No. | Region | Arable land and permanent crops (million ha) | Total drained area (million ha) | % Drained area |
| 1 | Developed Countries | 424.3 | 106.014 | 24.98 |
| 2 | Emerging/Developing Countries | 969.17 | 87.505 | 9.03 |
| 3 | Least Developed Countries | 80.63 | 4.08 | 5.06 |
| | Total (101 countries) | 1474.1 | 197.6 | 13.40 |
| | World | 1552.98 | 202.9 | 13.06 |

(b) Region wise

| Summary | | | | |
|---------|------------------------------|--|---------------------------------|----------------|
| Sl. No. | Region | Arable land and permanent crops (million ha) | Total drained area (million ha) | % Drained area |
| 1 | Africa | 112.06 | 5.82 | 5.19 |
| 2 | Americas | 399.48 | 64.80 | 16.22 |
| 3 | Asia | 589.37 | 72.14 | 12.24 |
| 4 | Europe | 373.19 | 54.84 | 14.69 |
| | Total (101 countries) | 1474.1 | 197.6 | 13.40 |
| | World | 1552.98 | 202.9 | 13.06 |

Notes: 1 ICID data (both for arable land and permanent crop (APC) and for drained areas)

2 CEMAGREF data (for drained area)

3 Monitoring and Evaluation Department (EPADP), Egypt, 2011

4 The total drained area in Ireland is 0.254 million ha, the total utilized agricultural area is 4.02 million ha. Apart from a very small area of Ireland that is irrigated on a commercial basis for crop production there are no major irrigation schemes in Ireland. Suggested figure for irrigated area in Ireland is 10,000 hectares. Source: Dr. Oliver Nicholson, Chairman, Irish National Committee on Irrigation and Drainage (IRCID), 28 June 2010

5 Statistics referred as "arable land" in Lithuanian registry as per 01.01.2010. The drained area slightly decreased as some of the area excluded from registry since that area has been completely depreciated and drainage no more functioning. Source: Prof. dr. Antanas Maziliauskas, President of Lithuanian National Committee (LICID), 26 June 2010.

6 The fact that the drained area is more than the APC area is a matter of definition. In the Netherlands' case the drained area includes areas with other functions such as drainage of meadows and urban areas. Source: Dr. Pol (A.L.) Hakstege, Secretary/ Treasurer, Netherlands National Committee (NETHCID), 2 July 2010.

7 Country Classification – World Economic Situation and Prospects (WESP), United Nations, 2012



APPENDIX XXVII [PCTA Item 6.1]

**AGENDA FOR THE 8TH MEETING OF THE
WORKING GROUP ON WATER AND CROPS (WG-WATER & CROP)**

14 October 2015, 14:00-15:30 hours
Montpellier, France

Strategy Theme: On-Farm

Presented by the Chairman

Year of Establishment: 2007

Completion of the Mandate: 2016

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.

Website: <http://wg-crop.icidonline.org>

WG-W&C Agenda Item 1: Action Taken Report by Chair

1. The Chairman may like to present a report on the actions taken on the various decisions of the working group at its last meeting held at Gwangju, Korea in 2014.

WG-W&C Agenda Item 2: Review of the membership of the Working Group

2. In order to increase the efficiency and functioning of the Working Group during annual face to face meeting and avoid spending a lot of time on administrative matters, MB has decided that the admission of new members or discontinuation of the membership of the group will be dealt by Chairman in consultation with Vice Chair, Secretary and ICID Central Office prior to the meeting itself through emails/ web conferencing.

3. New nomination of Prof. Dr. Allah Bakhsh (Pakistan) has been received from the Pakistan National Committee on Irrigation and Drainage (PANCID) and the Chairman recommends his membership for the WG. Dr. Magdi T. Abdelhamid (Egypt) has confirmed and apologized that he would not be able to participate in WG meeting at Montpellier, France. He, however, expressed his intention to participate in the WG activities and requested extension of his membership for another year i.e. 2016.

4. In case the new nominee is not present during the meeting, the nomination is accepted as 'Provisional Member' for one year. The new nominee would be expected to contribute to the activities of the working group by actively participating in the WG meetings, by e-mail or video-conferencing during the year for regularizing the membership of the WG thereafter.

5. On the basis of non-attendance, non-participation, no communication with ICID (ICID by-law 3.5) during the last 2 or more consecutive years, Chair recommends discontinuation of memberships of the following members:

- VPH Prof. Tai Cheol Kim (Korea)
- Ms. Jaleh Vaziri (Iran)
- Mr. Valery Vladimirovich Kalsky (Russia)

The WG endorses their discontinuation.

6. Accordingly, the updated membership of the WG based on the nominations received as of now can be seen in **Annex** (see the *electronic version for the latest list*). Any new nominations for the membership received during the meeting will be dealt suitably after the meeting.

SUPP.: Indonesian National Committee of ICID (INACID) has nominated Ir. Adang Saf Ahmad and Mr. Syaiful Mahdi (as an Observer) from Indonesia, for the membership of the group. CVs of Ir. Ahmad and Mr. Mahadi are attached.

Jain Irrigation Systems Limited (JISL) has recently joined ICID as 'Direct Member' and has nominated Dr. P. Soman (Direct Member) for the membership of the group. CV of Dr. Soman is yet to be received.

WG-W&C Agenda Item 3: Multi-functionality of water use in paddy (Rice) cultivation

7. The WG will bring out a 'Technical Report' by consolidating contributions and collection of information from members on various topics under the mandate of the group. Central Office requested the members/NCs from Korea, Indonesia, Thailand, China, Taiwan, Philippines to contribute their papers in the area of the 'Multi-functionality of water use in paddy (Rice) cultivation' enriching the 'Technical Report' of the working group.

8. In response, the following contributions were received: (a) "New Efforts to Preserve The Ifugao Rice Terraces" by Dominador P. Pascua & Leonor P. Fernandez (PNCICID); (b) "Breeding crab or fish in paddy field in China" by Mrs. Gao Hong (CNCID); and (c) "The Role of Irrigation System in Supporting Multifunctionality of Water Use in Paddy Field to Maintain Food, Water and Energy Security" by VP Dr. Ir. Mohammad Basuki Hadimoeljono (INACID).

The Chairman may apprise the WG members.

WG-W&C Agenda Item 4: International Workshop on 'Precision Irrigation for Sustainable Crop Production'

9. An International Workshop on '*Precision Irrigation for Sustainable Crop Production*' will be held on 14 October 2015 at Montpellier, France. The sub-topics of the workshop are: (a) Precision irrigation technology for improving water use efficiency; (b) Precision irrigation for poor quality water application; (c) The Economy and National policies of precision irrigation; (d) New Technologies for more accurate determination of crop water requirements for precision irrigation; and (e) Models as management tools for water management under precision irrigation.

10. The Chairman may apprise the members of the outcomes of the workshop. The Chairman may like to assign one of the members of the group to prepare an article (1500 words) on 'Precision Irrigation' for ICID News. It may be pointed out that the articles in ICID News are generally targeted at non-expert audience including policymakers.

WG-W&C Agenda Item 5: Publications of the Working Group

11. While the reports on "Crop water models" by VPH Dr. Ragab Ragab (UK); "Multifunctional use of water in paddy" by Prof Kim (Korea) and Dr Koji (Japan); and "Energy crops" by VP Mr. Laurie C. Tollefson (Canada) have been presented, Dr. K.Y. Reddy (India) and Dr. Graziano Ghinassi (Italy) were requested to contribute and submit their chapters/consolidate reports under the '*Efficient use of water in crop production*' towards publishing the 'Technical Report' of the working group. Similarly, Dr. Leon van Rensburg (South Africa) was requested to contribute his chapter on "*Rainfall Harvesting*". Responses are awaited.

The members and Chairman may apprise the WG members.

12. The WG members may use ICID provided facilities such as video-conferencing to communicate in between two annual meetings of the Group to finalise the technical report of the WG.

WG-W&C Agenda Item 6: Updating Multilingual Technical Dictionary (MTD)

13. At the 65th IEC, it was decided that ICID Central Office bring out an online version of the MTD and make it available through ICID website. In this connection, Central Office is collecting the terms available with different NC in their respective languages, based on 2010 version of MTD. PCTA would be discussing the issue of revision of the MTD, pruning down the chapters and concentrating on the chapters that are within the expert purview of ICID [Refer **Agenda Item 4 of PCTA**].

14. PCTA would require a feedback from each of the WGs as to how they plan to review / update the terms that fall within their respective scope of activities. WGs may discuss this issue and provide the required input to PCTA. To achieve this goal, it is proposed to undertake the concerned terms by the respective Working Group depending on their domain of expertise suggesting changes / modification and addition of new terms, contributing pictures, links and videos related to respective term.

The WG to discuss as above and report to PCTA.

WG-W&C Agenda Item 7: Website of Working Group

15. Dr. Hossein Dehghanisanji (Iran) and VP Laurie Tollefson (Canada) made their presentations on 'Precision Irrigation' and 'Irrigated Biofuel Production in Canada' during the WG meeting held in Korea. The ICID Central Office has uploaded these PowerPoint presentations/country papers of the authors on the WG website. Please access http://www.icid.org/wg_crop.html for more information on the group.

WG-W&C Agenda Item 8: Any other business



NOTES FOR CHAIRPERSON:

1. Draft minutes of this meeting to be submitted to ICID Secretariat at Montpellier (France) after the meeting.
2. Chair to participate and present the WG report to PCTA meeting on 15 October 2015.

A. Members and their attendance at 2013 and 2014 Meetings

| Sl. No. | Members | Member from (Year) | 2013 | | 2014 | | Remarks |
|----------------------------|--|--------------------|------|---------------------|------|---------------------|---------------------------------|
| | | | Self | Contributed by mail | Self | Contributed by mail | |
| 1. | Vice President Hon. Dr. Ragab Ragab, Chairman (UK) | 2007 | - | | • | | |
| 2. | Vice President Laurie C. Tollefson, Vice-Chairman (Canada) | 2009 | • | | • | | |
| 3. | Dr. K. Yella Reddy, Secretary (2010) (India) | 2009 | - | | • | | |
| 4. | Vice President Hon. Prof. Tai Cheol Kim (Korea) | 2007 | | | | | Recommended for discontinuation |
| 5. | Ms. Jaleh Vaziri (Iran) | 2009 | | | | | Recommended for discontinuation |
| 7. | Dr. Koji Inosako (Japan) | 2010 | • | | - | | No contribution during 2014 |
| 8. | Prof. Dr. Mohd Amin Mohd Soom (Malaysia) | 2011 | • | | - | | No contribution during 2014 |
| 9. | Dr. Magdi T. Abdelhamid (Egypt) | 2011 | - | | - | | Asking for one more year |
| 10. | Mrs. Gao Hong (China) | 2012 | | | | | Contributed in 2015 |
| 11. | Mr. Valery Vladimirovich Kalsky (Russia) | 2012 | | | | | Recommended for discontinuation |
| 12. | Dr. Marco Arcieri (Italy) | 2014 | | | • | | |
| 13. | Secretary General, ICID | | • | | | | |
| Permanent Observers | | | | | | | |
| 1. | FAO representative | | | | | | |
| 2. | Mr. Herbert H. Van Lier, CIGR | | | | | | |
| 3. | Prof. D. Wrachien (Italy) | | | | | | |
| 4. | ICRISAT representative | | | | | | |

B. New nomination received from the National Committee

| Sl. No. | Name | Country | Remarks |
|---------|------------------------|----------|--|
| 1. | Prof. Dr. Allah Bakhsh | Pakistan | Recommended by Chair, subject to his presence or/else Provisional Member |



PERMANENT FINANCE COMMITTEE (PFC)

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|--|------------|
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| 12 October 2015: 14.00-15.30 hours (Session I) | |
| 12 October 2015: 16.00-17.30 hours (Session II) | |
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| Annex 2: Summary of Approved Budget 2014-15, Actual Income/ Expenditure 2014-15, Proposed Budget 2015-16 and Revised Budgets 2016-17, Preliminary Budget 2017-18 and Forecast Budget 2018-19..... | 264 |

**AGENDA FOR THE 36TH MEETING OF THE
PERMANENT FINANCE COMMITTEE (PFC)**

12 October 2015: 14.00-15.30 hours (Session I)

12 October 2015: 16.00-17.30 hours (Session II)

Montpellier, France

Mandate: The Permanent Finance Committee (PFC) shall be concerned with the financial matters of the Commission and matters having significant financial implications. It will review the receipts and expenditures, advise the Council on the previous year's accounts and on the proposed or provisional budget and will make recommendations on the annual subscriptions and other support required from the National Committees and the Direct Members for the current and future years. It may give its opinion to the President and the Secretary General on the elements to be taken into account to prepare the budgets of the future years. The Committee shall also work out and recommend to the Council ways and means of improving the financial resources of the Commission to meet the financial requirements for undertaking different programs and activities emanating from the other work bodies. The Committee shall set up a Sub-Committee to consider the applications of Direct Members and review the membership of the National Committees in arrears of subscription.

Members: (1) Vice President Laurie Tollefson, Chairman (Canada, 2013); (2) Vice President Hon. A.K. Bajaj (India, 2009); (3) President Hon. Prof. Dr. Bart Schultz (The Netherlands, 2011); (4) Mr. Hao Zhao (China, 2012); (5) Ms. Serpil Koylu Dalgin (Turkey, 2012); (6) Mr. Naoki Hayashida (Japan, 2014); (7) Engr. Husnain Ahmad (Pakistan, 2014); (8) Dr. Irene Bondarik (Russia, 2014); and (9) Er. Avinash C. Tyagi, Secretary General, ICID.

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

| Average Exchange rate of 1 US \$ for the last fifteen months | | | | | |
|--|-------|----------------|-------|---------------|-------|
| Month | ₹ | Month | ₹ | Month | ₹ |
| April 2014 | 60.30 | September 2014 | 60.76 | February 2015 | 62.01 |
| May 2014 | 59.15 | October 2014 | 61.27 | March 2015 | 62.41 |
| June 2014 | 59.56 | November 2014 | 61.51 | April 2015 | 62.51 |
| July 2014 | 59.89 | December 2014 | 62.79 | May 2015 | 63.64 |
| August 2014 | 60.76 | January 2015 | 62.16 | June 2015 | 63.73 |

1. A conversion rate of US\$1 = ₹ 60 was assumed in the forecast for year 2014-15 on the basis of exchange rate in the preceding 15 months of 2014. Subscriptions actually received were of course converted based on the prevalent rate. The difference in the budgeted receipts and the actual receipts due to change in exchange rate are accounted for as part of 'other receipts'.
2. Based upon average exchange rate of 1 US \$ for the last fifteen months from April 2014 to June 2015, an exchange rate of US\$1 = ₹ 62 has been assumed for the Revised Budget (proposed) for the year 2015-16, Budget for Financial Year 2016-17 and Preliminary Budget for 2017-18 and Forecasted budget for the Financial Years 2018-19.

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

1. According to By-law 3.9.3(b), PFC shall comprise the Secretary General and a maximum of 15 elected members. Presently there are only 9 members on the Committee, including SG. The By-law 3.8.1(c) states that:

"Members of each Committee will be appointed for a three-year term by the Executive Council at the time of a Congress and may continue to function up to a total of six years, continuously or intermittently. Members, who no longer are actively functioning, may be replaced at the time of the Council meeting according to the aforesaid rules".

2. It is for information for the Committee that Vice President Hon. A.K. Bajaj will be completing his six-year term as member of the Committee.

3. To enrich the repertoire of the Committee, nominations have been invited from the National Committees vide e-mail dated 16th July 2015 for membership of the Committee. So far, no nominations have been received for Committee's membership.

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

4. IEC established the Direct Membership Administering (DMA) Sub-Committee with Chair PFC as its Chair and with two members co-opted from PFC and one member from PCSO, and adopted the procedure as laid down in the Guidelines for Administering Direct Membership.

5. This year, the CO has received 18 applications for Direct Membership. Out of these 18, the five applications have been found to be complete in all respects. These applications were sent to respective National Committees for 'No Objection Certificate (NOC)' for granting provisional direct memberships. However, the US National Committee has objected to granting DM to Prof. Jones as he would be welcome to join USCID to take part in ICID activities. As for the remaining four applicants, NOCs have been received from the NCs of Bangladesh and Turkey while NOCs from India are awaited. The following four applications have been sent to Direct Membership Administering (DMA) Sub-Committee for final scrutiny before admitting them as provisional direct members, anticipating the receipt of NOCs from India for for the two applicants at sr. nos.3 and 4.

| Sl. No. | Name of Applicants | Country | Type of Membership Applied for |
|---------|--------------------------------|------------|---------------------------------|
| 1 | Md. Samiul Ahsan Talucder | Bangladesh | Individual (Young Professional) |
| 2 | Mr. Aytekin Turgay | Turkey | Life Membership (Individual) |
| 3 | Prof. Prashanta Kumar Bordoloi | India | Life Membership (Individual) |
| 4 | Jain Irrigation System Ltd. | India | Company (C) for Three Years |

6. Out of the Seven Active Direct Members admitted under various categories last year at 64th IEC in Gwangju, Korea in 2014, five are active, They have been requested to renew their membership. M/s SU/YAPI Engineering and Consulting Inc., Turkey under the Company category and Mr. Tumaini E.R. Mazengo, Tanzania under the Individual (Young Professional) category. Their membership has expired on 30 June 2015 and is yet to be renewed.

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

7. **NCs relegated to Associate Member status:** During the 65th IEC at Korea, it was decided that National Committees of Fiji and Ukraine will be considered as 'Associate Members' from 1 January 2015 if their dues are not cleared by 31 December 2014. However, Fiji National Committee on Irrigation and Drainage (FIJICID) has cleared their membership subscription dues before 31 December 2014 amounting to US\$ 7174 for the years 2011, 2012, 2013 and 2014 and hence FIJICID would remain in the category of Active National Committee, revoking the decision taken by 65th IEC at Gwangju, as per By-law 13.2. The National Committee of Ukraine became "Associate Members" with effect from 1st January 2015 since the National Committee has not been able to clear the past dues, in line with the decision of 65th IEC at Gwangju (Resolution IEC-1/65).

8. **Withdrawal from ICID membership:** The Federal Ministry of Food and Agriculture of Germany vide their letter dated 22 September 2014, informed that German National Committee of ICID (GECID) has decided to withdraw their membership from ICID by 31 December 2014.

9. **Active NCs in Arrears:** As of 31 March 2015, a total of 18 active National Committees were in arrears of subscription. National Committees of Portugal, Russia and Uzbekistan have since paid their subscription for the year 2014. Italian NC who was in arrears of 2013 and 2014, was able to clear the dues of 2013.

10. At the time of writing the agenda notes, the Czech Republic NC was in arrears of two years' subscription amounting to US\$ 5,705 for the years 2013 (US\$ 2,810) and 2014 (US\$ 2,895) excluding the current year's subscription of US\$ 2,985. PFC may consider recommending IEC to applying By-law 13.1 in case of Czech Republic National Committee debaring 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.

11. Saudi Arabian NC was in partly arrears of their membership subscription for the years 2010 (US\$ 300), 2011 (US\$ 305), 2012 (US\$ 410) and 2013 (US\$ 520). Also, the Saudi Arabia NC is in arrears of subscription for the year

2014 amounting to US\$ 3,820. Several requests were made to Saudi Arabian NC to clear their balance of subscription for the years 2010-2013 and for the year 2014. The Committee may like to kindly take note of it and recommend further action for this NC.

12. **Reactivation of National Committees:** After the 65th IEC meeting held in Gwangju in 2014, the Sudanese National Committee of ICID (SUCID) who became Associate Member since 2003, has now made payment of US\$ 14,475 towards membership subscription for the year 2015 and remaining amount as an advance payment for the years 2016, 2017, 2018 and 2019. In accordance with by-law 13.5, Sudan being a LDC, PFC is requested that their subscription arrears for the years 2000, 2001 & 2002 may be waived. It is recommend for their readmission as a full member. The Committee may like to place on record its appreciation of SUCID for reviving their membership and advance payment of 4 years.

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

PFC Agenda Item 4.1. 65th IEC and 22nd Congress, 16-20 September 2014, Gwangju, Republic of Korea

13. Korean National Committee on Irrigation and Drainage (KCID) has made a special contribution to ICID budget amounting to US\$ 152,500 as its 50% share from the registration fee collected (US\$ 305,000) for the 22nd Congress and 65th IEC meeting held in Korea in 14-20 September 2014. The Committee may like to record its appreciation to KCID for successful organization of 22nd Congress & 65th IEC .

PFC Agenda Item 4.2. 12th International Drainage Workshop, 23-26 June 2014, St. Petersburg, Russia

14. The National Committee of the Russian Federation on Irrigation and Drainage (RuCID) has made a special contribution to ICID budget, amounting to US\$ 2,085, as 5% share from the registration fee for the 12th International Drainage Workshop held in Russia. The Committee may like to record its appreciation to RuCID.

PFC Agenda Item 5: Review of financial proposals for the forthcoming ICID events

PFC Agenda Item 5.1: 4th African Regional Conference on Irrigation and Drainage, 26-28 April 2016, Cairo, Egypt

15. The Egyptian National Committee (ENCID) has been requested to apprise about the financial aspects like registration fee etc. by way of making presentation at the PFC Meeting. Response is being still awaited.

PFC Agenda Item 5.2: 67th IEC Meeting, 2016 and 2nd World Irrigation Forum, 6-13 November 2016, Chiang Mai, Thailand

16. Representative of Thai National Committee (THAICID) would make a presentation on the arrangements for holding the event of 2nd WIF & 67th IEC Meeting.

PFC Agenda Item 5.3: 13th International Drainage Workshop, March 2017, Ahvaz City, Iran

17. The Iranian National Committee (IRNCID) informed the Central Office that their representative will present the financial aspects like registration fee, number of potential delegates, date and venue of the event during the PFC meeting. IRNCID had sent a proposal for enhanced revised registration fees for the event. They had been requested to reconsider the proposal in light of recent discussions at management board expressing concern of national committee, about the high registration fees for ICID events.

PFC Agenda Item 5.4: 68th IEC and 23rd Congress, 8-14 October 2017, Mexico City, Mexico

18. The Mexican National Committee on Irrigation and Drainage (MXCID) have informed that a presentation on the progress of arrangement for the event will be made by them during the PFC meeting.

PFC Agenda Item 5.5: 69th IEC, Saskatoon, Canada, 2018

19. The Canada National Committee on Irrigation and Drainage (CANCID) have expressed their willingness to host the 69th International Executive Council in Saskatoon, Canada in 2018. CANCID representative will make a presentation during the meeting of PFC.

20. To discuss the audited accounts of ICID for the year 2014-15 and recommend to the IEC

PFC Agenda Item 6.1: Auditor's Report

21. The Auditor's report (abridged) for the financial year (1 April 2014 to 31 March 2015) is given at **Annex 1**. PFC may consider and recommend for IEC's approval of the audited accounts for the year 2014-15, with or without comments. Some of the salient points of the Auditor's report are highlighted in the following paragraphs.

22. The total annual subscription amount for the 59 active National Committees for the year 2014 was US\$ 245,105. Against this a sum of US\$ 152,971 has been received by 31 March 2015. This shows 62.41% realization of the total subscription for the year 2014, as against 81.93% during the year 2013 which is a matter of concern. 48 out of 59 active members have paid their subscription for the year 2014 as on 31 July 2015. In addition, outstanding subscription arrears amounting to US\$ 26,637 for the year 2013, US\$ 3,465 for the year 2012 and US\$ 4,402 for the year 2011 were also received during the financial year.

23. From the Auditor's Report, it can be seen that the outstanding balance of subscriptions (arrears) of 17 Active NCs as on 31 March 2015 was US\$ 78,971. In comparison, the outstanding balance as on 31 March 2014 was US\$ 58,540 from 16 active NCs.

PFC Agenda Item 6.2: Foreign Currency Accounts

24. The Foreign Currency Accounts with Canara Bank, New Delhi (one in US\$ and another in Euro) and HSBC Bank, London were also audited. These accounts have been incorporated in the audited accounts of the Commission for the period ending 31 March 2015. Brief of these accounts is as follows:

25. The total receipts during the year 2014-15 in the Foreign Currency (US Dollar Account) with Canara Bank, New Delhi was US\$ 447,425. There was a balance of US\$ 318 from previous year. Out of which, the payment of US\$ 447,743 was made during the year. A balance of US\$ NIL as on 31 March 2015 is carried forward to the next financial year.

26. The total receipts during the year 2014-15 in the Foreign Currency (EURO Account) with Canara Bank, New Delhi was Euro 2,196. There was a balance of Euro 188 from previous year. Out of which, the payment of Euro 2,384 was made during the year. A balance of Euro NIL as on 31 March 2015 is carried forward to the next financial year.

27. In the HSBC Bank plc., London, there is a fixed deposit of US\$ 121,542 and also previous year balance in Current Account was US\$ 30,853. During the year 2014-15, the receipts was US\$ 2,805 and a payment of US\$ 124 (as bank charges) was made. Thus the balance amount of US\$ 33,534 was available as on 31 March 2014.

PFC Agenda Item 6.3: ICID Employees Provident Fund Trust

28. The Balance Sheet as on 31 March 2015 & Receipts and Payments Account of the ICID Employees Provident Fund Trust for the years 2014-15 was audited. The amount standing at the credit of the subscribers (staff) Accounts as on 31 March 2015 was ₹ 45,96,639 compared to an amount of ₹ 47,65,631 as on 31 March 2014. The deficit in the EPF Trust account should be ₹ 1,955,119 as on 31 March 2015, which is comparatively reduced from an amount of ₹ 3,672,169 as on 31 March 2014.

PFC Agenda Item 6: Budget and Actual Payments for the financial year 2014-15

PFC Agenda Item 7.1: Comparison of budget estimates and actual expenditure for FY 2014-15

29. A summary of the outlay for 2014-15 approved by IEC in the last meeting and payment made up to 31 March 2015 is presented at **Annex 2**. Against the anticipated receipts of ₹ 70.00 million, the actual receipts were ₹ 67.03 million. Against a deficit of ₹ 1.62 million during financial year 2013-14, there is an overall surplus of ₹ 13.27 million in the financial year 2014-15. The surplus is mainly due to receipt of registration fee share of the 1st WIF held at Turkey in 2013 as well as 22nd Congress held at Korea in 2014 in the same financial year 2014-15. The actual payments made during 2014-15 was ₹ 53.76 million against the anticipated budgeted payment of ₹ 53.97 million.

Grants

30. A sum of ₹ 3.58 million (US\$ 59 661) were received during 2014-15 as grant from Ministry of Water Resources, China in four tranches for certain activities such as supporting young irrigation professionals from developing and less developed countries to attend meetings and study tours etc. Against this, a payment of ₹ 2.77 million (US \$ 46,139) was made during the year. PFC may like to put on record its appreciation for the generous support provided by MoWR, China.

31. A sum of ₹ 0.72 million (US\$ 12 000) were received as grant from World Meteorological Organisation (WMO), Switzerland for certain activities such as arranging and fund the air travel of eight participants from irrigation management departments engaged in flood management etc. Against this, an expenditure of ₹ 0.61 million (US\$ 10,242) has been made. PFC may record its appreciation for the support provided by WMO.

PFC Agenda Item 7: To consider revised budget proposal for the current FY 2015-16; budget proposal for FY 2016-17; proposal for preliminary budgets for FY 2017-18 and forecast budget for FY 2018-19

PFC Agenda Item 8.1: Revised Budget proposal for the current FY 2015-16 (Annex 2)

Receipts

32. **Membership Subscription:** A sum of ₹ 15.12 million (US\$ 243,807) is anticipated to be received from the annual membership subscription in respect of 57 active NCs and Direct ICID members.

33. **Sale of Publications:** An amount of ₹ 1.54 million (US\$ 24,916) is budgeted to be received from sale of publications which includes royalty accruable from M/s Wiley-Blackwell, the publisher of ICID Journal - 'Irrigation and Drainage' amounting to ₹ 1.16 million (US\$ 18,787) for the year 2015-16.

34. **Special contribution to the Budget:** A contribution of ₹ 3.72 million (US\$ 60,000) is expected from NCs who host the various events held/to be held such as 66th IEC Meeting and 26th European Regional Conference in France.

35. **Interest on Fixed Deposit:** It is also estimated that under the head 'Interest on fixed deposits' an amount of ₹ 2.71 million would be received as interest on FDs with the banks.

36. **Other Receipts:** An amount of ₹ 3.91 million is likely to be received in this year which is mainly on account of refund of income tax and also includes other miscellaneous receipts.

37. **Rent Receipts:** A receipt of ₹ 40.00 million is anticipated during 2015-16 from the leasing of office premises at the Central Office building to M/s Yes Bank Ltd. The higher provision as compared to the earlier years is due to the fresh lease agreement for additional area negotiated with M/s Yes Bank. Out of that 10% of this amount is directly payable to Land & Development Office, New Delhi and at the same time there would be an increase some amount in FY 2015-16 under Property Tax payable to New Delhi Municipal Committee.

Expenditure

38. **Compensation package for Secretary General:** An amount of ₹ 3.21 million is estimated for payment to Secretary General in terms of a Letter of Appointment dated 20 September 2014.

39. **Salary of staff:** Central Office is operating with 15 staff members. During the FY 2014-15. An amount of ₹ 18.38 million is budgeted for staff salary for the FY 2015-16 which includes ₹ 2.00 million estimated to be paid to Consultants engaged on specific jobs on temporary basis as their professional fee. It may be pointed out that despite new activities being undertaken and proposed to be undertaken during the next financial year, the work is being accomplished through the existing staff and hiring of services of Consultants.

40. **Superannuation relief to retired employees:** ICID Central Office is giving superannuation relief to its retired employees. The amount budgeted under this head for the financial year 2015-16 is ₹ 3.39 million.

41. **Services and Maintenance:** Provision under the head 'Services and Maintenance' is budgeted as ₹ 5.26 million which is mainly due to renewal of various annual maintenance contracts of various service providers and the increase over the expenditure during the last financial year is on account of inflationary pressure.

42. **Taxes and Utilities:** A provision of ₹ 22.80 million is proposed for the year which includes allocation of ₹ 3.37 million towards payment to Land & Development Office (L&DO) which is 10% of the total rental receipts from let out

property to M/s Yes Bank. The property tax charged by the New Delhi Municipal Committee is assessed at the rate of 30 per cent of the value of property (which is approximately calculated as the total rent which varies in the market). This also includes arrears of property tax not fully paid during the FYs 2010-11, 2011-12 & 2012-13 with the increase in the total rent received there will be higher Property Tax.

43. **Rehabilitation and refurbishing of CO Building:** A provision of ₹ 1.00 million has been made. This includes miscellaneous payments.

44. **Publication, Printing & Distribution:** A sum of ₹ 4.26 million is budgeted under this head. This payments includes provision of ₹ 2.15 million (US \$ 34,697) towards purchase of 800 copies of ICID Journal from the publisher M/s Wiley-Blackwell. In addition to the normal provisions such as printing of Agenda, Minutes, Annual Reports etc and postage charges for distribution of all the publications under this head, a provision for bringing out Special Publications in the form of technical publications produced by the working groups every year has also been made.

45. **Conference Expenditure:** An allocation of ₹ 5.50 million is estimated in this financial year towards 66th IEC Meeting & 26th ERC meeting to be held at Montpellier, France in October 2015 inclusive of Postage & Freight and Plaques are ₹ 0.20 million, 0.25 & 0.10 respectively, is proposed under the head.

46. **Travel / Meetings:** A provision of ₹ 1.05 million has been made towards payments on account of travel to attend the international meetings by Secretary General and other professional staff of CO, particularly for attending the 66th IEC & 26th ERC.

47. **Purchase of Office Equipment:** A sum of ₹ 2.40 million is estimated which includes installation of compact system in library of the Central Office.

48. **Workshop and trainings:** An amount of ₹ 2.00 million has been provided for this financial year. This amount would be spent mainly for organization of various workshops and trainings.

PFC Agenda Item 8.2: Budget proposal for FY 2016-17; preliminary budgets for FY 2017-18 and forecast budget for FY 2018-19 (Annex 2)

Receipts

49. **Membership subscription:** During the year 2016-17, 2017-18 and 2018-19 receipts from membership subscription has been estimated as shown in the **Annex 2** based on the assumption that all the NCs which are members today will continue to be active and paying their annual subscription. As regards calculation of receipt of membership subscription during a FY, the methodology being adopted is that wherein the subscription has been received in advance during a FY, the same has been adjusted in the subsequent FY. In addition, it is anticipated that direct membership will also increase steadily.

50. **Sale of Publications:** An amount of ₹ 1.54 million is budgeted to be received from sale of publications which includes royalty of ₹ 1.16 million (US\$18,787) from M/s Wiley-Blackwell in terms of the projections supplied by the Chairman, EB-JOUR and based on the five years agreement (2014-18), during the next three financial years.

51. **Special Contribution to ICID Budget:** With the ICID share from registration fee from the 67th IEC Meeting, & 2nd WIF to be held in Thailand in 2016, a sum of ₹ 8.25 million (US\$ 133,000) and a sum of ₹ 0.15 million (US\$ 2,419) from the 4th African Regional Conference to be held in Egypt in April 2016 are expected to be received as special contribution in the FY 2016-17. 68th IEC and 23rd Congress scheduled to be held in Mexico and 13th International Drainage Workshop in Iran in the FY 2017-18, an amount of ₹ 7.33 million (US \$ 118,300) and ₹ 0.12 million (US\$ 2,000) are expected to be received respectively in the FY 2017-18. A sum of ₹ 3.53 million is estimated to be received as special contribution from the 69th IEC likely to be held in Canada in 2018.

52. **Interest and Other receipts:** Interest on the General Fund has been calculated on the Fixed Deposits plus the surplus to arrive at the receipts from interest. For the FY 2016-17, ₹ 3.22 million is assessed to be received as interest on fixed deposits which is further projected to rise to ₹ 2.86 million and ₹ 2.73 million in 2017-18 and 2018-19 respectively.

53. **Rent from Let-out Portion:** Rent from M/s Yes Bank is likely to be received as ₹ 44.50 million in 2016-17, ₹ 49.26 million in FY 2017-18 and ₹ 49.26 million in 2018-19 from let-out property. There will be an increase of 18% as per agreement in the FY 2016-17.

Expenditure

54. **Compensation package for Secretary General:** An amount of ₹ 3.60 million, ₹ 4.03 million and ₹ 4.52 million is estimated for payment to Secretary General for the FY 2016-17, 2017-18 and 2018-19 respectively. This amount includes leased accommodation provided to him in terms of Letter of Appointment dated 20 September 2014.

55. **Salaries and Allowances:** The provision includes dues on account of annual increment and possible increase in dearness allowance on the approved lines as per the ICID Employees Rules. An increase of about 9 per cent is assumed due to increments and inflation. A sum of ₹ 20.74 million is projected for the FY 2016-17 which include ₹ 2.00 million estimated for payment to Consultants as professional fee.

56. **Services and Maintenances:** A sum of ₹ 5.43 million has been provided for FY 2016-17 towards building maintenance, stationary purchases, outsourcing of watch and ward services, gardener services, equipment, fees to legal advisor/ auditors, maintenance of vehicles, telephones and postage, maintenance of Website/TDS, Executive Expenses etc. This also includes the Hardware and Software upgradation in the Central Office Computer System in order to keep abreast with the latest software packages.

57. **Taxes and Utilities:** An aggregate amount of ₹ 16.08 million is estimated to be paid under this head which includes payment towards property tax, electricity & water charges and payment to Land & Development Office (L&DO). A provision of ₹ 11.72 million towards payment of Property Tax has been made in the budget for FY 2016-17, ₹ 12.90 million and ₹ 12.90 million have been made for the FY 2017-18 and forecast budget for FY 2018-19 respectively. An amount of ₹ 3.96 million has been estimated to be paid to L&DO during FY 2016-17 which is further estimated to increase ₹ 4.44 million for FY 2017-18 and FY 2018-19.

58. **Printing, Purchase and Distribution of Publication:** Proposed budget for payments under this head are ₹ 3.49 million for the financial year 2016-17. A provision of ₹ 2.20 million (US\$ 36,432) has been made for the guaranteed payment towards subscription to M/s Wiley & Blackwell, publishers towards ICID Journal for the year 2016-17. These provisions are estimated to increase for the FYs 2017-18 and 2018-19 as the number of ICID Journal subscriptions are likely to increase in proportion with the increase in direct membership.

59. A budget provision of ₹ 1.23 million has been made for the year FY 2016-17 for other type of payments. The increase of 5% provisions have been made for the FYs 2017-18 and 2018-19.

60. **Conference Expenditure:** A sum of ₹ 3.85 million is budgeted to be spent in FY 2016-17 which is further expected to be decreased to ₹ 2.35 million and ₹ 1.45 million in FY 2017-18 and 2018-19 respectively. Increase in conference expenditure is expected in FY 2016-17 since the 2nd World Irrigation Forum (WIF) would be held during this financial year.

61. **Travel Expenditure:** An amount of ₹ 1.25 million is estimated to be spent in FY 2016-17 towards travel arrangements for meetings in India and abroad. This amount is further presumed to increase to ₹ 1.30 million during FYs 2017-18 and 2018-19.

62. **Workshops & Trainings:** It is proposed to spend ₹ 2.0 million each during the FYs 2016-17, 2017-18 and 2018-19. This amount would be spent mainly for organization of various workshops and trainings to remain abreast with the latest developments in irrigation, drainage and flood management areas.

PFC Agenda Item 8: Surplus/Deficit and Cash Reserve

63. PFC may kindly consider the budget for 2015-16 and recommend it to IEC for approval. PFC may also kindly consider the proposed budget for financial year 2016-17 and recommend it to IEC for approval. The preliminary budget for the FY 2017-18 and forecast budget for FY 2018-19 are presented for information.

64. Taking into account the total receipts of ₹ 67.00 million and payments of ₹ 64.44 million, a surplus of ₹ 2.56 million is estimated for the financial year 2015-16. Also a surplus of ₹ 11.23 million, ₹ 8.67 million and ₹ 4.19 million are expected in the financial years 2016-17, 2017-18 and 2018-19, respectively. The total cash reserve is only ₹ 55.60 million, which is 86.28 % of the expenditure annual budget. This is not a very healthy sign for the financial sustainability of any organization. It is therefore recommended that after meeting all the liabilities the cash reserve may be allowed to be build up at least equal to the annual payments.

65. However, it may be pointed out that there was a surplus of ₹ 13.27 million in FY 2014-15 which was mainly due to receipt of ICID's share of Registration fee of 64th IEC Meeting held in Turkey in 2013 against a deficit of ₹ 1.62 million in FY 2013-14.

PFC Agenda Item 9: Establishment of WID Prize Corpus Fund

66. As per IEC Resolution 6/65, the World Irrigation Drainage Prize Corpus Fund has been created and a separate account of it has been opened in Canara Bank in New Delhi in the name of "ICID Corpus – WID Prize". The National Committees of China and Korea contributed a sum of US\$ 20,000 and US\$ 5,000 respectively. Other NCs may be requested to contribute to this fund as the corpus fund required for the US\$ 10,000 triennial prize would be US\$ 20,000.

PFC Agenda Item 10: Any other items

SUPP:

PFC Agenda Item 11.1: Review of annual membership subscription

67. ICID has been using the formula for calculating annual membership subscription payable by member countries since 1965 as approved by the IEC at Athens. In the year 1996, IEC took the decision to increase the membership subscription by 10% over the previous year, on an ad-hoc basis. A further increase of 4.5% was approved by IEC at the 49th IEC meeting at Bali, Indonesia in 1998.

68. Subsequently, due to inflation and increasing deficit in ICID revenues, the necessity to enhance the annual subscription rates was acknowledged in IEC 2006 in Kuala Lumpur. Based on the recommendation of internal review of the Permanent Finance Committee (PFC), IEC at its 58th meeting in 2007 in Sacramento, USA approved an enhancement of annual subscription by 3% every year over the previous year to take care of the annual inflation.

69. A few of National Committees such as *Slovenia and Italy* have reported to be facing financial constraints in paying the annual membership and have requested the Central Office to re-evaluate the amount of annual membership keeping in view the decrease in areas under irrigation and drainage in their countries during the past 20 years. They point out that due to less than 3% growth rate in European countries in general they are facing financial difficulties in paying enhanced annual subscriptions.

70. The Austrian NC has expressed the view that in their opinion their membership fee is relatively high in comparison to other European members and requested Central Office to provide them basis for calculation of the annual fee, which was complied with. Austria have since withdrawn from the membership of ICID from 1st January 2015 and have informed that due to lack of financial support from their Government the NC is no longer in a position to pay their subscriptions.

71. German National Committee has also withdrawn their membership from 1st January 2015 due to restructuring of the Ministry in recent years and various other constraints. They have also been struggling to convince their Government to contribute the increased annual subscription every year.

72. Keeping in view the concerns raised, PFC may like to take a view and recommend to IEC for establishing a Task Force to review the membership subscription formulae and present a proposal to fix the membership subscription. In the meantime, the Committee may like to recommend to IEC to suspend 3% increase in the annual membership subscription from the year (effective from 1st January 2016).

PFC Agenda Item 11.2: Change of 2nd signatory of HSBC Bank Account in London

73. A Foreign Currency Account in HSBC Bank plc. in London is being maintained in the name of "International Commission on Irrigation and Drainage" since February 2001, and as of 31st March 2015, it has a balance of US\$ 166,124: Current Account No. 39950726 - US\$ 33,534; Fixed Deposit Account No. 41026026 - US\$ 11,716; Fixed Account Account No. 41026034 - US\$ 33,016; and Fixed Deposit Account No. 39980803 - US\$ 87,858

74. In order to operate the Bank Accounts, in accordance with Indian Society's Act, two signatories are required. In this case Mr M Gopalakrishnan the Secretary General was the first signatory while Mr K.N.Sharma, the then Secretary was the second signatory till 31st March 2010. After the retirement of Mr K N Sharma, Dr Suresh Kulkarni took over his responsibility as the second signatory to the Bank Accounts other than the HSBC account. In the case of HSBC Bank, the second signatory was not changed since a resolution authorizing the signatories was required from the IEC to effect such a change. Due to oversight, such a resolution was not put up to IEC at the time of transfer of charge from Mr K.N. Sharma to Dr Suresh Kulakrni (in March 2010) and later from Dr Suresh Kulkarni to Dr Vijay Labshetwar (in December 2013). There was no problem in changing the First signatory since the appointment letter of SG clearly mentions that he is the Treasurer of ICID. As such when the present incumbent took over as SG, the HSBC Bank was intimated and the First signatory was changed by the Bank accordingly.

75. The situation went undetected till the Central Office tried to remit an amount of Euro 765 towards membership fee of World Water Council (WWC) from HSBC Bank. The Bank refused to honour the transaction due to mis-match of one signatory and informed that the name of Mr. K.N. Sharma, the then Secretary of the Commission is still existing as the 2nd authorized signatory of the Account.

76. Under Society's Act the two signatories for operating the Bank Accounts of a Society have to be duly authorized by the Management, in our case by the Council. As such in order to restart the operations of HSBC accounts, a resolution (in accordance with the text required by HSBC Bank) is required from the IEC to that effect. PFC may recommend to Council to pass the following Resolution authorizing Mr Avinash C Tyagi, Secretary General as the first signatory and Dr Vijay K Labshetwar, Director as the second signatory to the cheques. The resolution will be submitted to HSBC Bank in London to make the accounts operational.

Resolution

The 66th International Executive Council (hereinafter called 'Council') of the International Commission on Irrigation and Drainage at its meeting held in Montpellier, France this day, the 16th October, 2015, hereby resolves:

"That Mr. Avinash C. Tyagi, Secretary-General and Dr. Vijay K. Labshetwar, Director be and hereby authorized jointly to sign or accept all cheques. The signing rule is two to sign".

"Resolved further that the bank be instructed to honour all cheques, and other orders drawn by and to accept and to credit to the account of ICID all moneys deposited with or owing by the bank or any account or accounts at any time kept or times kept or to be kept in the name of ICID and the amount of all cheque, notes, bills, other negotiable instruments, orders or receipt, provided they are endorsed/signed jointly by above named on behalf of the ICID and such signatures shall be sufficient authority to bind ICID in all transactions between the bank and the ICID including those specially referred to herein."

"Resolved further that a copy of Resolution and specimen signature of the above signatories, authorized to operate the account, be provided to the Bank."

PFC Agenda Item 11.3: Appointment of the Statutory Auditor for the period 2016-2018

77. As per the ICID Constitution, the account of ICID shall be audited regularly on yearly basis in a manner to be determined by the Council. As per By-law 7.3, the audited Financial Statement for the preceding year, duly audited, has to be presented to each IEC as part of the Agenda Items for consideration of the Council. Based on the prevalent practice in most International Organizations, the duration of appointment of the Auditor is three years the authority to appoint an Auditor lies with the General Body that is IEC in our case. The current Auditor M/s Abhyankar & Company was appointed in 2012 for the period 2012-15.

78. Central Office invited offers for performing Statutory Audit as required under the Income Tax Act, FCRA Act & Society Act through the portal of "The Institute of Chartered Accountants of India", www.devnetjobsindia.org, the non-government jobs portal with the last date for receipt of the offer as 22nd September 2015. Based on these efforts, offers were received from 11 firms by the last date [These would be made available to the members of the PFC during the meeting]. A couple of firms have been rejected for want of sufficient information with respect to their experience and a couple of firms don't have experience in dealing with international organizations. Based on the assessment made by Secretary General with respect to the experience and competency of the bidders an Evaluation of Statutory Auditor Firms is attached.

79. M/s P.K. Chopra & Company; M/s KRA & Co and M/s PDMAG have the required experience especially in dealing with foreign contributions and audit of non-government institutions. They were found equally competent and have quoted a reasonable price. The rates submitted by M/s P.K. Chopra of Rs. 92,000 + Service Tax are lowest and are reasonable. Incidentally, the present Auditor is charging Rs. 85,000 + Service Tax for (1) Auditing of ICID & CPF Trust Accounts and (2) Preparation of Income Tax Return & FCRA Return and filing thereof. M/s P.K. Chopra & Company will undertake the following work:

- a. To audit the books of accounts of the ICID Society and the CPF Trust of Central Office for the financial year 2015-16.
- b. To provide guidance in preparing and finalizing the Financial Statements for Indian & Foreign Funds (including providing CA Certificate for FC6), Balance Sheet, Income and Expenditure A/c and Receipt and Payment A/c with relevant schedules and annexures of the ICID Society & the CPF Trust.

- c. To Provide Tax Audit Report under section 12A (b) of the Income Tax Act, 1961 for the year ending on 31st March i.e.CA certificate (10BB form) of the ICID Society & the CPF Trust and filing thereof.

80. PFC may like to recommend to IEC for appointment of M/s P.K. Chopra & Company as the Statutory Auditor for the period 2016-2018 for ICID.



AUDIT REPORT FOR THE YEAR ENDING 31 MARCH 2015

A. ABHYANKAR & COMPANY
Chartered Accountants

International Executive Council

International Commission on
Irrigation and Drainage
48 Nyaya Marg, Chanakyapuri
New Delhi 110 021

Dear Sir,

1. We have audited the attached Balance Sheet of International Commission on Irrigation and Drainage (ICID) as on 31st March, 2015, Income & Expenditure and Receipt & Payment Account for the year ending on that date.
2. These financial statements are the responsibility of the management. Our responsibility is to express an opinion on these financial statements based on our audit.
3. We conducted our audit in accordance with auditing standards generally accepted in India. Those Standards requires that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free from material misstatements. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audit provides a reasonable basis for our opinion. We report that :
 - (i) We have obtained all the information and explanation which, to the best of our knowledge and belief, were necessary for the purpose of our audit.
 - (ii) 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.
 - (iii) The Balance Sheet, Income & Expenditure Account and Receipt & Payment Account dealt with by this report, are in agreement with the books of account.
 - (iv) The Balance Sheet, Income & Expenditure Account and Receipt & Payment Account dealt with by this report, generally (if stated otherwise), comply with the accounting standards issued by the Institute of Chartered Accountants of India, so far as applicable.
 - (v) In our opinion and to the best of our information and according to the explanation given to us, the said accounts, read with the notes thereon, gives a true and fair view in conformity with the accounting principles generally accepted in India:
 - (a) In the case of the Balance Sheet, of the state of affairs of the ICID as on 31st March, 2015
 - (b) In the case of Receipt & Payment Account, of the receipts and payments for the year and
 - (c) In the case of the Income & Expenditure Account, of the excess of Income over Expenditure for the year ended on that date.

Yours faithfully,

Sd/-

For A. Abhyankar & Co.
Chartered Accountants
Firm Registration No-023961N

Place: New Delhi
Dated: 16th July, 2015

Aniruddha Abhyankar
Proprietor
M. No. F-077883

INTERNATIONAL COMMISSION ON IRRIGATION AND DRAINAGE

Balance Sheet as on 31st March 2015

| | 2014-15 Amount INR | 2013-14 Amount INR |
|----------------------------------|-----------------------|-----------------------|
| ASSETS | | |
| Property & Equipment | 12,381,385 | 12,438,530 |
| Receivables | 12,495,808 | 9,070,255 |
| Stock of Publications | 273,600 | 510,125 |
| Bank Balances & Cash in Hand | 61,413,339 | 35,609,945 |
| Subscription Accrued | 2,815,942 | - |
| Total Assets | 89,380,074 | 57,628,855 |
| LIABILITIES | | |
| Gulhati Memorial Lecture Fund | 335,603 | 443,477 |
| General Fund | 51,352,443 | 28,564,058 |
| Gratuity Fund | 1,964,010 | 1,847,061 |
| Corpus Fund-WID Prizes | 1,218,306 | - |
| Special Fund Receipts | 2,604,205 | 3,310,230 |
| Security from Tenant | 19,310,000 | 19,310,000 |
| Subscription Received in Advance | 2,598,300 | 4,154,029 |
| Payables & Provisions | 9,916,016 | - |
| TDS and Work Tax Payable | 81,191 | - |
| Total Liabilities | 89,380,074 | 57,628,855 |

Auditor's Report

Sd/-

For A. Abhyankar & Co.
Chartered Accountants
Firm Registration No-023961N

Aniruddha Abhyankar
Proprietor
M. No. F-077883

Place: New Delhi
Dated: 16th July, 2015

Sd/-
Aniruddha Abhyankar
Proprietor

Sd/-
Dr. Vijay K. Labhsetwar
Director

Sd/-
Avinash C. Tyagi
Secretary General

Annex 1 [continued]

INTERNATIONAL COMMISSION ON IRRIGATION AND DRAINAGE

**Receipts and Payments Account
For the Year from 1st April 2014 to 31st March 2015**

| | 2014-15 Amount INR | 2013-14 Amount INR |
|--|-----------------------|-----------------------|
| RECEIPTS | | |
| Cash & Banks (balance brought forward) | 35,609,945 | 35,466,948 |
| Membership Subscriptions | 11,449,326 | 14,365,733 |
| Sale of Publications | 1,493,594 | 908,372 |
| Special Contribution to Budget | 11,529,812 | - |
| Interest on Fixed Deposits | 2,699,715 | 3,724,392 |
| Grant Received | 4,299,686 | 3,575,000 |
| Other Receipts | 1,276,182 | 15,980,875 |
| Rent and Provision of Services on Let Out Property | 38,579,975 | 23,328,079 |
| Income Tax Refund | - | 1,326,278 |
| Total | 106,938,235 | 98,675,677 |
| PAYMENTS | | |
| Salaries and other incidentals | 15,912,047 | 18,810,881 |
| Compensation package for Secretary General | 2,870,441 | 2,507,400 |
| Superannuation Relief to Retired Employees | 3,018,191 | 2,435,315 |
| Professional & Other Services Charges | 2,678,540 | 3,660,261 |
| Repair & Maintenance | 2,050,089 | 1,829,419 |
| Taxes and Utilities | 3,728,611 | 20,294,002 |
| Rehabilitation & Refurnishing | 5,243,976 | - |
| Printing and Distribution | 2,637,220 | 3,577,134 |
| Conference Expenditure | 1,392,295 | 619,894 |
| Travelling Expenses | 612,412 | 760,701 |
| Grants utilized | 3,464,055 | 1,815,479 |
| Subscription to other organization | - | 66,179 |
| Others | 144,396 | 171,885 |
| Purchase of Fixed Assets | 1,659,531 | 6,517,182 |
| UNESCO IHE Online Course Sponsorship | 113,092 | - |
| Cash & Banks (balance carry forward) | 61,413,339 | 35,609,945 |
| Total | 106,938,235 | 98,675,677 |

Auditor's Report
Sd/-
For A. Abhyankar & Co.
Chartered Accountants
Firm Registration No-023961N

Place: New Delhi
Dated: 16th July, 2015

Aniruddha Abhyankar
Proprietor
M. No. F-077883

Sd/-
Aniruddha Abhyankar
Proprietor

Sd/-
Dr. Vijay K. Labhsetwar
Director

Sd/-
Avinash C. Tyagi
Secretary General

Annex 2 [Appendix XXVIII, Items 8.1 & 8.2]
Summary of Approved Budget 2014-15, Actual Income/ Expenditure 2014-15, Proposed Budget 2015-16 and Revised Budgets 2016-17, Preliminary Budget 2017-18 and Forecast Budget 2018-19

| | | Approved Revised Budget 2014-15 | Actual Receipts/ Expenditure 2014-15 | Approved Budget 2015-16 | Proposed Revised Budget 2015-16 | Proposed Budget 2016-17 | Proposed Preliminary Budget 2017-18 | Proposed Forecast Budget 2018-19 |
|-----------|---|---------------------------------|--------------------------------------|-------------------------|---------------------------------|-------------------------|-------------------------------------|----------------------------------|
| | | ₹ | ₹ | ₹ | ₹ | ₹ | ₹ | ₹ |
| I | RECEIPTS | | | | | | | |
| | 1. Membership Subscriptions | 15,928,170 | 11,449,326 | 17,544,626 | 15,116,014 | 15,595,554 | 15,612,209 | 15,630,529 |
| | 2. Sale of Publications | 1,254,810 | 1,493,594 | 1,298,847 | 1,544,767 | 1,544,767 | 1,544,767 | 1,544,767 |
| | 3. Special Contribution to the Budget | 13,593,589 | 11,529,812 | 4,230,000 | 3,720,000 | 8,396,000 | 7,458,600 | 3,534,000 |
| | 4. Interest on Fixed Deposits | 2,082,438 | 2,699,715 | 2,270,631 | 2,714,216 | 3,223,887 | 2,856,179 | 2,725,160 |
| | 5. Other Receipts | 3,458,629 | 1,276,181 | 2,765,938 | 3,911,915 | 1,654,934 | 3,129,170 | 715,005 |
| | 6. Rent and Maintenance Charges | 33,682,440 | 38,579,976 | 33,682,440 | 39,992,103 | 44,504,356 | 49,263,920 | 49,263,920 |
| | Total Receipts | 70,000,075 | 67,028,604 | 61,792,482 | 66,999,015 | 74,919,498 | 79,864,844 | 73,413,380 |
| II | EXPENDITURE | | | | | | | |
| | 1. Compensation Package for SG | 2,652,240 | 2,870,441 | 2,819,640 | 3,214,894 | 3,600,681 | 4,032,763 | 4,516,694 |
| | 2. Salaries | 15,964,268 | 16,009,012 | 17,141,462 | 18,378,205 | 20,743,080 | 26,462,005 | 26,587,553 |
| | 3. Superannuation Relief to Retired Employees | 3,235,687 | 3,018,191 | 3,753,397 | 3,380,374 | 3,786,019 | 4,240,341 | 4,749,182 |
| | 4. Service & Maintenance | 6,025,000 | 4,480,051 | 6,250,000 | 5,254,200 | 5,543,120 | 5,849,432 | 6,218,875 |
| | 5. Taxes & Utilities | 12,492,319 | 13,426,755 | 12,743,244 | 22,797,020 | 16,076,557 | 17,732,076 | 17,732,076 |
| | 6. Rehabilitation / Refurbishing of CO Building | 5,600,000 | 5,824,017 | 1,500,000 | 1,000,000 | 2,500,000 | 0 | 0 |
| | 7. Printing, Purchase and Distribution of Publication | 3,803,300 | 3,597,299 | 3,868,300 | 4,261,198 | 3,490,758 | 6,326,696 | 3,783,281 |
| | 8. Conference Expenditure | 1,200,000 | 1,192,295 | 375,000 | 550,000 | 3,850,000 | 2,350,000 | 1,450,000 |
| | 9. Travel Expenditure | 900,000 | 612,412 | 1,060,000 | 1,050,000 | 1,250,000 | 1,300,000 | 1,300,000 |
| | 10. Purchase of Office Equipment's | 1,600,000 | 1,659,531 | 550,000 | 2,400,000 | 700,000 | 750,000 | 800,000 |
| | 11. Workshops and Training | 300,000 | 313,174 | 350,000 | 2,000,000 | 2,000,000 | 2,000,000 | 2,000,000 |
| | 12. Other Expenditure | 200,000 | 757,553 | 250,000 | 150,000 | 152,000 | 155,000 | 157,000 |
| | Total Expenditure | 53,972,814 | 53,760,731 | 50,661,043 | 64,435,891 | 63,692,214 | 71,198,313 | 69,294,662 |
| | Surplus/(Deficit) | 16,027,261 | 13,267,873 | 11,131,439 | 2,563,124 | 11,227,284 | 8,666,531 | 4,118,718 |
| | Grants Receipts | 1,120,000 | 4,299,686 | 0 | 0 | 0 | 0 | 0 |
| | Grants Utilization | 1,120,000 | 3,464,055 | 0 | 0 | 0 | 0 | 0 |