

**AGENDA FOR THE TWENTY-NINTH MEETING OF THE
PERMANENT COMMITTEE FOR TECHNICAL ACTIVITIES (PCTA)
New Delhi, India
09 December 2009: 09.30-13.00 hours (Session-I)
09 December 2009: 14.00-17.30 hours Session-II)**

Members: (1) Vice President Hon. Hector Malano, Chairman (Australia, 2005); (2) Mr. Bruno Molle, Vice Chairman (France, 2006); (3) Vice President Hon. Larry D. Stephens, Secretary (USA, 2003); (4) Vice President Hon. Hussein Ehsan El-Atfy (Egypt, 2005); (5) Prof. Daniele de Wrachien (Italy, 2005); (6) Dr. Yohei Sato (Japan, 2005); (7) Dr. Nikolay G. Kovalev (Russia, 2007); (8) Mr. Hasan B. Yuksel (Turkey, 2007); (9) Mr. A.K. Bajaj (India, 2008); and (10) Er. M. Gopalakrishnan, Secretary General, ICID

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

Ex-Officio Members: All Strategy Theme Leaders and Chairpersons of all workbodies under PCTA.

Item 1 : Confirmation of minutes of the 28th meeting of PCTA held at Lahore, Pakistan, 16 October 2008

The minutes of 28th meeting of PCTA held at Lahore on 16 October 2008 were circulated and also uploaded on the ICID website in the month of January 2009. As no comments were received thereon, the minutes may be confirmed.

A. CONTINUING ITEMS

ITEMS FOR ACTION

Item 2 : Membership of the Committee

- 2.1 ICID Central Office invited National Committees to send nominations for the Workbodies, including, PCTA. In response, the Pakistan National Committee (PANCID) has nominated Engr. Husnain Ahmed for the membership of PCTA. CV of Engr. Ahmed will be tabled during the meeting of PCTA for consideration.
- 2.2 There had been requests from Challenge Program on Water and Food (CPWF) and Agricultural Water for Africa (AgWA), other water related international organizations to work partnering ICID in their missions for mutual advantage.
- 2.3 Attendance of the members at the PCTA meetings in 2007 and 2008 in terms of ICID By-law 3.1.7 will be handed over to the Chairman at the time of the meeting.

Item 3 : Composition of Workbodies

3.1 Recommendations of Workbodies for the positions of Chairmen/ Vice Chairmen/ Secretaries

The Chairs/ Vice Chairs/ Secretaries of the following workbodies will retire at the end of New Delhi meetings. New Chairs/ Vice Chairs/ Secretaries elected by the workbodies will be considered for recommendation to IEC for acceptance.

Name of Workbody	Chairs/ Vice Chairs/ Secretaries
WG-HIST	Prof. Dr. N. Hatcho, Chairman (Japan)
WG-SDTA	Mr. Jonathan Simm, Vice Chairman (UK)
WG-CAFM	VP Engr. Dr. Illahi B. Shaikh, Chairman (Pakistan)

TF-FIN	Ir. Paul van Hofwegen, Chairman (The Netherlands)
TF-POVERTY	VPH Dr. Alian Vidal (Chairman)

3.2 New membership proposals for Working Groups

The following new nominations have been received for various Working Groups. Proposals will be considered by the respective Working Groups at their respective meetings and recommendations will be communicated to PCTA for their acceptance by PCTA/ IEC.

Working Group on History of Irrigation, Drainage and Flood Control (WG-HIST)

New nominations

- Mr. Zarar Aslam (Pakistan) in place of Dr. I.B. Shaikh
- Dr. Kamran Emami (Iran) in place of Dr. Naser Shayan

Deferred Nomination

- Mr. Ram Chandra Jha (India) in place of Mr. B.D. Pateria

Working Group on Technology and Research Uptake and Exchange (WG-TRUE)

New nomination

- Dr. Kazumi Yamaoka (Japan) in place of Dr. Yohei Sato

Deferred Nomination

- Mr. H.K. Varma (India) in place of Mr. S.K. Chaudhuri

ICID Journal Editorial Board (EB-JOUR)

New nominations

- Dr. Yohei Sato (Japan) in place of Prof. Dr. Riota Nakamura
- Dr. Mohsin Hafeez (Australia) as Associate Editor

Working Group on Modernization of Irrigation Services (WG-MIS)

New nomination

- Engr. Syed Mansoob Ali Zaidi (Pakistan) in place of VP Dr. Illahi B. Shaikh

Working Group on Water Saving for Agriculture (WG-WATS)

New nomination

- Dr. Muhammad Arshad (Pakistan)

Resignation

- Dr. Alain Vidal (France) {on assuming his new position as the Director of CPWF in Sri Lanka, he ceases to be an AFEID nominee for the WG and has tendered apologies to serve further, any ICID Working Groups in the capacity of AFEID nominee. However, he has expressed readiness to contribute as the Observer from CPWF and that it will partner with ICID.
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Working Group on Drainage (WG-DRG)

Deferred nominations

- Mr. Ahmed Mohammad Aziz (Iraq), and Mr. Anzeim Carl Albertovich (Kazakhstan)

Working Group on Water Management in Water Stressed Regions (WG-DROUGHT)

New nominations

- Dr. Teodoro Estrela-Monreal (Spain)
- Mr. Mohammad Sadegh Jafari (Iran)
- Engr. Qazi Tallat Mahmood Siddiqui (Pakistan)

Deferred nominations

- Dr. Kiwood Park (Korea); Dr. Polevoy Anatoliy (Ukraine), and Dr. Benjamin de León Majarro (Mexico)

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

New nominations

- Ir. Loh Kim Mon (Malaysia) in place of Mr. Teoh Weng Chaw
- Dr. Jo, Jin Hoon (Korea)

Deferred nominations

- Prof. Dr. Moustafa Tawfik Gaweesh (Egypt), and Dr. Gao Jing (China)

Working Group on Environment (WG-ENV)

New nomination

- Mr. Javeed Iqbal Bokhary (Pakistan) in place of Dr. I.B. Shaikh

Deferred nominations

- Mr. A.K. Ganju (India); Dr. Theresa Volschenk (South Africa), and Mr. Ahmed Aziz (Iraq)

Working Group on Comprehensive Approaches to Flood Management (WG-CAFM)

New nominations

- Mr. Zazar Aslam (Pakistan) in place of Vice President Engr. I.B. Shaikh
- Dr. Takao Masumoto (Japan) in place of Dr. Takeshi Hata

Deferred nomination

- Mr. G. S. Purba (India) in place of Mr. A.K. Ganju

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

New nomination

- Mr. Naseer Ahmed Gillani (Pakistan)

Deferred nominations

- Dr. Edward Keith Weatherhead (UK); Dr. Juan A. Rodriguez-Diaz (Spain); Dr. Rolu Encarnacion y Pascua (Philippines); Ir. C.W.J. Roest (The Netherlands), and Prof. Sue Walker (South Africa)
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Working Group on Water and Crop (WG-CROP)

New nominations

- Dr. Koji Inosako (Japan) in place of Prof. Dr. Yoshisuke Nakano
- Prof. Dr. Rai Niaz (Pakistan) in place of Dr. M. Rafique
- Ms. Jaleh Vaziri (Iran)
- Dr. K. Yella Reddy (India)

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

New nomination

- Mr. M. Sidhu (Pakistan) in place of Mr. Maghmoom Muhammad Iqbal/ Mr. Ramzan Chaudhry

Deferred nominations

- Dr. Makoto Yokozawa (Japan) in place of Dr. S. Seyama
- Dr. Jinzhong Yang (China) in place of Dr. Gao Zhanyi
- Mr. Bekbayev Ussen (Kazakhstan)
- Dr. Paramjit Singh Minhas (India) in place of Dr. R.K. Singhanian/ N.K. Tyagi

Working Group on On-Farm Irrigation Systems (WG-ON-FARM)

New nominations

- Prof. Dr. Rai Niaz Ahmed (Pakistan)
- Dr. Koji Inosako (Japan) in place of Prof. Dr. Yoshisuke Nakano

Deferred nomination

- Mr. Tauipbaev Sultanbek Tauipbaevich (Kazakhstan)

Working Group on the Role of Irrigation in Poverty Alleviation and Livelihoods (WG-POVERTY)

New nominations

- Mr. Enayat Farahani (Iran)
- Mr. Hassan Javaid Afridi (Pakistan)
- Prof. Linden Vincent (The Netherlands)
- Dr. Dennis Wichelns (USA)
- Dr. Yohei Sato (Japan)

Deferred nominations

- Prof. Wim van Averbek (South Africa)

Task Force on Financing Water for Agriculture (TF-FIN)

New nominations

- Mr. Bashir Ahmed Sial (Pakistan)
 - Mr. Zainor Rahim bin Ibrahim (Malaysia)
 - Dr. Henri Tardieu (France)
 - Mr. C.S. Mathur (India)
 - Ms. Şadiye Yalçın (Turkey)
 - Mr. E. Farhadi (Iran)
 - Prof. Kazumi Yamaoka (Japan)
 - Dr. Gerhard Backeberg (South Africa).
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3.3 Websites of ICID Workbodies

So far, 21 workbodies have established their web pages. The Working Group on Environment (WG-ENV) and American Regional Working Group (AMRWG) are yet to set up their web pages.

Item 4 : Consideration of reports of Chairs of Workbodies followed by those of respective Strategy Theme Leaders

4.1 Presentation by Workbodies under the Strategy Theme – Knowledge (ST.K) Theme Leader (VPH Alain Vidal). VPH Vidal has agreed to handle this theme during the IEC though he has excused himself to work as an AFEID nominee given his new responsibilities in another International Organisation CPWF under CGIAR

4.1.1 Committee on Public Relations and Publications (C-PR&P)

Highlights

At Sacramento meeting in 2007, it was decided that the Committee will remain in its current form and will continue to review the ICID Newsletter and the ICID website, offering suggestions to Central Office on their improvement. It was also suggested that the C-PR&P could advise on the suitability of material/ outputs of workbodies for publication in (i) ICID Journal (ii) as ICID publication/ book or (iii) on ICID website, as appropriate. The policy as to how the ICID position papers are best published is an important issue. Such documents of importance could after processing in respective working groups, and later through the thematic coordinator in PCTA the final recommendation to accept the position paper can be from PCTA Chairman to IEC. They can be special ICID publications which can be distributed freely to ICID National Committees and other sister organizations dealing water issues as a reciprocal gesture (since we receive free copies of their publications in C.O Library) depending on specific requests. The specific question is as to whether it can be ICID publications or a Paper in ICID journal; in the later case, after its acceptance and publication, reprints or copies cannot be made out for free circulation as one has to refer them to get a copy of the particular issue of the Journal.

Due to inadequacy of members, the 17th meeting of C-PR&P could not be held at Lahore.

4.1.2 ICID Journal Editorial Board (EB-JOUR)

Highlights

Dr. Hector Malano (Australia) and Prof. Nick van de Giesen (The Netherlands) are the new Joint Editors. Prof. Bart Schultz continues as the Chairman. ANCID has proposed Dr. Moshin Hafeez for Associate Editor and the outcome of considering this proposal will be reviewed, based on EB's (Jour) recommendations

Coinciding with the World Water Forum 5 in Istanbul in March 2009, a special issue of Irrigation and Drainage was brought out on '*Water for Food and Poverty Alleviation*'; efforts were made to highlight ICID roles in the current situation in agricultural water management with a paper on ICID itself '*ICID: Its Objectives, Achievements and Plans*'. Yet another special issue brought out in April 2009 focused on '*Water Professionals of Tomorrow*'.

The Journal 'Irrigation and Drainage' is being published under Agreement with M/s. Wiley-Blackwell for the eighth year in succession.

A fresh 'Agreement' with M/s Wiley-Blackwell has been signed for the period 2009-2013 to bring five issues a year.

4.1.3 Working Group on Coordination of Dictionaries (WG-CD)

Highlights

The WG reviewed the status of revision and publication of revised version of MTD 2002 on CD-ROM. It was noted that the French translation of 20 Chapters of revised English version of the MTD had been completed. It was decided to retain the four Chapters in their original form (both in English and French) since reviewers could not be identified for their revision.

The Central Office had initiated various steps to publish the revised version of MTD on CD-ROM which is expected to be released on the occasion of the 60th IEC meeting at New Delhi in December 2009.

The translation of the MTD into Bahasa (Indonesian) language in its draft form was completed in January 2008 and a 'discussion team' was set up in July 2008 to correct the draft.

The Indonesian version of the MTD was expected to be published in April 2009 as reported by INACID at Lahore.

The progress of the Persian and Turkish versions of the revised MTD will be reported during the meeting.

4.1.4 Working Group on History of Agricultural Water Management (WG-HIST)

Highlights

At Lahore, the group accepted the proposal of Dr. Hafied Gany towards organizing a History Seminar at the time of 61st IEC meeting in Yogyakarta in 2010. The seminar will be based on the document on 'History of Irrigation in Eastern Asia', focusing especially on the use of modern water technology.

The meeting agreed to the view of the Chairman Prof. N. Hatcho that he would function as a "person-in-charge" and proposed that the nomination/ election of a new Chairman be postponed until the 12th meeting of the Group to be held in New Delhi. The Group has proposed its new name as Working Group on "History of Agriculture Water Management".

4.1.5 Working Group on Technology and Research Uptake and Exchange (WG-TRUE)

Highlights

The 1st meeting of the WG-TRUE was held at Lahore. At the meeting, the group decided to keep its tenure for a four year duration so as to accomplish its mandated/ suggested activities.

4.1.6 Synthesis and Recommendations by Theme Leader on Knowledge (ST.K)

Highlights

Since VPH Dr. Alain Vidal, Strategy Theme Leader 'Knowledge' did not attend the Lahore meeting, there were no report on ST-Knowledge.

VPH Dr. Alain Vidal has communicated that he is planning to be present at the IEC meeting on 10 December as an observer of CPWF; though his membership in ICID working groups will cease since he can no longer be a nominee of AFEID, he has kindly consented to deliver the presentation on the Strategy Theme, liaising with respective work body chairs and the Deputy Leader of the 'Knowledge' theme.

As a backup preparations, the Central Office has also requested VPH Larry Stephens, Deputy Theme Leader, Strategy Theme - Knowledge (USA) to make the presentation at 60th IEC meeting, in case VPH Vidal could not make it to attend the Delhi meeting.

4.2 Presentation by Workbodies under the Strategy Theme – Systems (ST.S)

4.2.1 Working Group on Modernization of Irrigation Services (WG-MIS)

Highlights

WG-MIS held its 2nd meeting at Lahore where nomination of Dr. Willem F. Vlotman (Australia) was accepted as Secretary of the WG. A draft work plan of the group for the period 2007-2013 was tabled at the meeting. This will however be refined at New Delhi meeting involving all members and other interested partners. The FAO-ICID workshop on modernization could not be held due to absence of FAO representative during the last IEC in Lahore. A half-day ICID-FAO-IWMI Special Session on Modernization has been planned to be held on the sidelines of the 60th IEC/ 5th ARC at New Delhi and Central Office is liaising with organizers and others concerned to make this event feasible.

4.2.2 Working Group on Water Saving for Agriculture (WG-WATS)

Highlights

The Group adopted its new mandate at its 15th meeting held at Lahore.

The Central Office brought out a document “Water Saving in Agriculture” which was released at the Lahore Congress. IRNCID has volunteered to translate the book in Persian language.

The Group proposed to explore commercial sponsorship for the WatSave awards in the future.

The Central Office has received 8 nominations (*for three categories of the Award*) from 4 National Committees for the WatSave Award 2009 by the deadline 31st August, 2009

4.2.3 Working Group on Drainage (WG-DRG)

Highlights

The new workplan will be presented by the Chair and one of the issues to be resolved pertains to the tenure of the working group. Given its continuing nature the relevance of treating it as other workbodies was an issue. The WG considered evolving suggestion to reform itself keeping in view the new work plan.

The Chairman will make suitable recommendations in this regard. Data base on Drainage systems, Performance assessment of drainage with potential indicators and the efforts to vitalize the website ‘drainline’ are some of the key aspects considered in the working group. Chairman WG (Drainage) will elaborate.

The Egyptian National Committee (ENCID) has offered to host the 11th International Drainage Workshop along with the 63rd IEC to be held in 2012, if approved by the 61st IEC.

4.2.4 Working Group on the Role of Irrigation in Poverty Alleviation and Livelihoods (WG-POVERTY)

Highlights

At its Lahore meeting, the proposal for the conversion of the Task Force into a regular Workbody (in view of the ICID’s key role to contribute to the poverty alleviation and improvement of livelihoods in developing countries) was approved by the 59th IEC.

The Central Office made a request VPH Alain Vidal to handle the first meeting of WG-POVERTY at New Delhi but the indications are that he may be unavailable on the day of the meeting and will join later. The WG will be electing or nominating the Chairman/ Vice Chairman/ Secretary at the meeting and also evolve the work plan in the light of TF’s achievements collaborating international agencies working on poverty alleviation and livelihood issues.

4.2.5 Task Force on Financing Water for Agriculture (TF-FIN)

Highlights

The 2nd meeting of Task Force on Financing Water for Agriculture (TF-FIN) could not be held at Lahore due to scarce attendance of members.

The TF has proposed to prepare a framework document for the whole set of activities including guidelines for the case studies. The TF would prepare a draft paper to allow financing institutions (e.g. Global Exchange for Social Investment), donors and other relevant institutions. The ICID national committees may provide feedback and additional contributions. Subsequently, the activities would focus on integration of perceptions and translation into joint action proposals to enhance access to finance and stimulate investments in water management for sustainable agriculture. The TF has planned to hold an internal workshop at New Delhi.

4.2.6 Synthesis and recommendations by Theme Leader on Systems (ST.S)

Highlights

Since Dr. W.F. Vlotman, Strategy Theme Leader 'Systems' did not attend the Lahore meeting, no report was available on the ST-Systems. Dr. Vlotman has confirmed his likely participation in 60th IEC and hence will be providing his briefing to PCTA on the theme.

4.3 Presentation by Workbodies under the Strategy Theme – Basin (ST.B)

4.3.1 Working Group on Water Management Stressed Regions (WG-DROUGHT)

Highlights

The 1st meeting of the Working Group on Water Management in Water Stressed Regions (WG-DROUGHT) was held on 15 October 2008 at Lahore, Pakistan. Dr. Nairizi, Chairman of the erstwhile WG-IADWS explained that the main outputs of the erstwhile WG have been the preparation of papers and reports on 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.

For the year 2009, the core task of the new working group was suggested to be: Updating the above noted documents and make the material ready by 2009 for publication in the form of a Book on 'Irrigation under Drought and Water Scarcity'.

Since many members of the WG were not available during the Lahore meeting and many new members are expected to join, it was considered appropriate to elect Chair, Vice-Chair and Secretary during the New Delhi meeting of the WG. Dr. Nairizi (Iran) has agreed to be the Interim-Chair and Mr. Dimick (USA) has indicated his interest to continue as the Secretary.

To commence the activities under new WG, three thematic areas have been formulated – (i) Drought management strategies; (ii) Coping with water scarcity and (iii) Rainfall management for sustainable agriculture. These three thematic areas have been further divided into sub-topics to further the goals of the WG.

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

Highlights

The 7th meeting of WG-SDTA could not be held due to scarce attendance of members at Lahore. However, an interim meeting of the WG was held in February 2009 in Chinese Taipei. In the interim meeting the progress on various items was discussed and future plan for publication of the Handbook on SDTA was decided.

The printed version of the SDTA Handbook was proposed to be released during the 61st IEC meeting to be held in Indonesia in 2010. Dr. Park, Mr. Simm and Dr. Ritzema prepared a draft position paper "Development of tidal areas, some principles and issues toward sustainability"; this was submitted as a Journal paper and was accepted for publication in the Special Issue of the 'Journal Irrigation and Drainage' brought out during the occasion of the 5th World Water Forum. The WG was considering contributing to a Special Issue on SDTA of ICID Journal on Irrigation and Drainage. The position regarding bringing out an ICID position paper as an ICID publication is also a matter being considered in the (C-PR&P) and these recommendations will be coordinated during the PCTA meeting.

The group has plans to organize an international workshop on the theme "Monitoring Systems for Sustainable Development of Tidal Areas" on the sidelines of the 60th IEC/ 5th ARC at New Delhi.

4.3.3 Working Group on Environment (WG-ENV)

Highlights

At Lahore, the Group was renamed as 'Working Group on Environment (WG-ENV)'. The newly constituted WG-ENV held its maiden meeting on 13 October 2008 at Lahore. The Group has its new mandate and agreed to develop a website and upload the documents that are of relevance. It was also decided that the Secretary Ir. Henk

P. Ritzema, will act as an editor and a coordinator of the paper for the Special Issue of ICID Journal. The Secretary was to prepare one of the chapters and circulate it amongst the members for their views/ comments. The WG-ENV will review the position paper and present it at the time of the 60th IEC at New Delhi, for consideration. The WG also has plans for evolving a position paper on Environment. Other aspects which would receive attention include Impacts of water projects on human health, management of a sustainable environment to maximizing positive and minimize adverse effects of irrigation and drainage systems etc

4.3.4 Working Group on Comprehensive Approaches to Flood Management WG-CAFM)

Highlights

At Lahore, 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.

The WG discussed the proposal of Mr. Kamran Emami, IRNCID on “Value Engineering” and requested him to make a detailed presentation at the New Delhi meeting. It was 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.

4.3.5 Working Group on Global Climate Change and Agricultural Water Management (WG-CLIMATE)

Highlights

At Lahore, Dr. Ray Shyan Wu (Chinese Taipei) acted as the Chairman and apprised members about WG’s contribution to 5th World Water Forum on the Topic 2.3 “Water and Food for Ending Poverty and Hunger”. The WG has its webpage as developed by Dr. Ray Shyan Wu.

ICID has contributed to the Forum Topic 1.1 on “Adapting to Climate Change: Understanding the impact of Climate Change, Vulnerability Assessment and Adaptation Measures”.

Dr. Mark Svendsen Chairman, WG-Climate, provided comments on the draft documents viz., “White Paper – Needs of Climate Information for Decision Making in the Water Sector” and “Application of the Climate Information and Prediction in the Water Sector: Capabilities” pertaining to UN-Water Task Force on Water and Climate as coordinated by the WMO.

4.3.6 Synthesis and recommendations by Theme Leader on Basin (ST.B)

Highlights

Since VPH Henri Tardieu, Strategy Theme Leader ‘Basin’ did not attend the Lahore meeting, no report was available on the ST.Basin.

4.4 Presentation by Workbodies under the Strategy Theme – On-Farm (ST.OF)

4.4.1 Working Group on Water and Crop (WG-CROP)

Highlights

The 1st meeting of the Working Group on Water and Crops (WG-CROP) was held on 15 October 2008 at Lahore. However, a full fledged business meeting was not possible due to scarce attendance of members. It was proposed to develop activities around the mandate during the New Delhi meeting of the WG. The position will be indicated by the Chairman WG-Crop.

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

Highlights

At Lahore, the Group approved its new mandate and extension of the tenure until 2013. The Group had undertaken to revise its work plan considering the new mandate and the extended tenure.

4.4.3 Working Group on On-Farm Irrigation Systems (WG-ON-FARM)

Highlights

At Lahore, the IEC accepted the WG's new mandate and the proposal to extend its tenure up to 2014. The Manual on "Performance Evaluation of Sprinkler and Drip Irrigation Systems" authored by Dr. Graziano Ghinassi (Italy) was released at the opening ceremony of the Congress. The WG thanked Dr. Graziano Ghinassi for his dedicated work and also the Italian National Committee (ITAL-ICID) for generous financial support in bringing out this book.

Representative of IRNCID affirmed their commitment to host the 8th International Micro irrigation Congress (IMIC) along with the 62nd IEC and 21st Congress of ICID at Tehran, in October 2011. The work plan of the Group, proposed up to 2011 was discussed. A Special Session on "Micro Irrigation" will be held at New Delhi.

4.4.4 Synthesis and recommendations by Theme Leader on On-Farm (ST.OF)

At the 59th IEC held at Lahore, VPH Saeed Nairizi, Strategy Theme Leader 'On-Farm' made presentation on ICID contribution to non-irrigated agriculture and irrigated agriculture in context to the respective working groups. He highlighted that the WG-ON-FARM could accept the challenge to bring paradigm shift in irrigation knowledge and practices related to – basic irrigation principles, appropriate technology, and modern irrigation practices.

Item 5 : ICID Task Forces

5.1 Task Force to Guide ICID Inputs to WWF-5 (TF-WWF-5)

The TF reviewed the status of ICID involvement in various Themes and Topics of the 5th World Water Forum.

The Chairman will provide the feedback based on a review of the outcome of WWF5 and ICID's role in contributing to different themes, topics and sessions.

5.2 Finalizing the TF-IBWT publication

The draft final version of the report on Inter Basin Water Transfers (IBWT) will be tabled by PH Bart Schultz at New Delhi meeting for consideration. The final version will be circulated to the 'Review committee' prior to its printing and publishing.

B. ITEMS FOR INFORMATION

Item 6 : ICID's Cooperation with International Organizations

6.1 UN Organizations

- **UN-Water**

ICID is one of the partner organizations of the UN-Water. ICID has been actively participating and contributing to various initiatives like preparation of the 3rd World Water Development Report and Task Forces. ICID has contributed to the Task Force on Indicators, Monitoring and Reporting which was established to define a common framework for monitoring and reporting through the identification of 'key indicators to report on major water domains; and Task Force on Water and Climate' which was established to facilitate the member countries in assessing the impacts and adopting strategies for meeting the challenges of climate change in the water sector and to strengthen UN-System coordination on activities related to water and climate change.

- **Food and Agriculture Organization of the United Nations (FAO)**

ICID is represented at various meetings and sessions of FAO from time to time. Dr. Maria Elisa Venezian Scarascia (Italy), Secretary General, ITAL-ICID is ICID's permanent representative in FAO. Vice Presidents Dr. Karim Shiati (Iran), Mr. Shinsuke Ota (Japan), Dr. Ir. Mohd. Azhari bin Ghazalli (Malaysia), and Dr. Hafied Gany (Indonesia); and Mr. Theera Wongsamut, Chairman, THAICID were nominated to attend the 29th FAO Regional Conference for Asia and the Pacific held at Bangkok from 26-31 March 2009.

As decided in the Council meeting in Lahore, Secretary General M. Gopalakrishnan attended the FAO organized “High Level Conference on water for Agriculture and Energy in Africa: The Challenges of Climate Change” from 15-17 December 2008 in Sirte, Libya. The purpose of the Conference was to address the water resources in Africa, taking into consideration the increased demand by the agricultural and energy sectors in the context of changing climatic conditions.

The Secretary General communicated with the National Committees of Mali (AMID), Niger (ANID), Nigeria (NINCID), South Africa (SANCID) and Zambia (ZACID) prior to the Conference soliciting their perceptions on the issues proposed to be discussed in the Conference. Many member countries of ICID participated in the Conference.

A new initiative Agricultural Water in Africa (AgWA) with other organizations (IPTRID, AfDB, FAO, IWMI etc.) has been floated and on invitation, ICID agreed to support and partner this initiative.

- **World Water Assessment Programme (WWAP)**

The triennial World Water Development Report (WWDR) is the United Nations System flagship report on water, a comprehensive review of the state of the world’s freshwater resources. The Reports provide a mechanism for monitoring changes in the resources and its management and tracking progress towards achieving targets, particularly those of the Millennium Development Goals and the World Summit on Sustainable Development.

Co-coordinated by the World Water Assessment Programme (WWAP), the development of the 3rd World Water Development Report (WWDR 3) is a joint effort of the 25 UN-Water Members and Partner Organizations ICID is one of the partner organizations of the UN-Water, given its important role in water management for agriculture. Secretary General M. Gopalakrishnan is a member by invitation, of the Technical Advisory Committee constituted by the WWAP Secretariat under UNESCO. The WWDR are released during the World Water Forums.

- **International Fund for Agricultural Development (IFAD)**

ICID was invited by IFAD to their 32nd Session of the Governing Council scheduled from 18-19 February 2009 in Italy. VP Prof. Lucio Ubertini, Vice President, was requested to represent ICID in the Session. Who participated and made a presentation.

ICID has a Permanent Observer status at the Executive Board of Governing Council of IFAD. ICID was invited to participate in their 32nd Session of the Governing Council held on 18-19 February 2009 at Rome as Prof. Lucio Ubertini, Vice President, and ICID joined the session representing ICID.

- **World Meteorological Organization (WMO)**

ICID had received an invitation to represent in the 14th Session of Regional Association II (Asia) held in Tashkent, Uzbekistan from 5-11 December 2008. ICID had requested Prof. Victor A. Dukhovny, Vice President Hon. ICID to participate.

ICID has also been invited to contribute to the UN-WATER Task Force on “Water and Climate” coordinated by the WMO and Chairman WG-Climate. VPH Svendsen has been identified as our focal point.

- **UNESCO**

A request was received from Prof. Dr. Shahbaz Khan, Chief, Sustainable Water Resources Development and Management Section, Division of Water Sciences, Natural Sciences Sector, UNESCO showing interest in joining IEC meetings and follow ICID activities; this was with a view to foster a closer collaboration and organize some joint activities especially in publications, education and training areas.

6.2 World Water Council (WWC)

The 5th World Water Forum (WWF5) held during 16-22 March 2009 at Istanbul, Turkey. The main theme of the Forum was “Bridging Divides for water”. There were six themes and about four topics under each theme. ICID coordinated the Topic 2.3: Water and Food for Ending Poverty and Hunger of Theme 2: Advancing Human

Development and the Millennium Development Goals (MDGs). The Topic 2.3 was addressed through the following key questions/ sessions:

- 2.3.1 How to achieve the required food production to meet the growing demand?
- 2.3.2 How can food markets measures boost rural development and poverty alleviation?
- 2.3.3 Water for bio-fuel or food?
- 2.3.4 How can better water management reduce poverty and hunger? A synthesis.

The session outcomes were organized into four categories, namely, (i) key issues (ii) recommendations (iii) commitments, and (iv) initiatives. A final version of the 'Draft Synthesis Report' including the discussions that took place during the forum meetings and presentations made during the various sessions have been placed in the web site and also circulated to all partners. The comments as received from all contributors will be included in the final report for its printing and publishing.

The WWC in June 2009 has announced that the 6th World Water Forum will be held at Marseille, France in 2012.

6.3 International Water Management Institute (IWMI)

During the year 2008-09, ICID and IWMI collaborated with each other on several issues of common interest. Notable during the year was IWMI joining ICID in coordinating the session 2.3.1 on "Water and food for ending poverty and hunger" at the 5th World Water Forum. An IWMI- FAO- ADB workshop on 'Trends and Transition in Asian Irrigation' was held during 19-21 January 2009 at Bangkok. Secretary General M. Gopalakrishnan was invited to participate in the workshop.

IWMI New Delhi Office in April 2009 organized a National Workshop on IWMI-CPWF project on "Strategic Analysis of the India's River Linking Project" ICID responded to their invitation positively with the participation of professionals from C.O and Secretary General.

6.4 International Water-related Associations' Liaison Committee (IWALC)

An informal meeting of IWALC took place in the sidelines of 5th World Water Forum held in Istanbul, Turkey due to special efforts of the Secretary General in close liaison with other IWALC members like IAHR, ICOLD etc. In The World Association for Sediment Research (WASER) has sought to be one of the members of IWALC. This has been agreed to.

6.5 International Standards Organization (ISO)

ICID has a status of Liaison member of the ISO. Central Office receives communications from TC23/SC18 (irrigation equipments), ISO/TC190 (soil quality), and TC113 (Hydrometry) and is disseminated among the members of the concerned Workbodies/ National Committees. The 27th meeting of the TC23/SC18 was held in November 2008 at Anaheim, California, and that the 28th meeting of SC18 will be held during 26-31 October 2009 in Mexico. Central Office, in consultation with the Chair, WG-ON-FARM has requested the concerned National Committees to represent ICID in these meetings.

6.6 International Union for Conservation of Nature (IUCN)

Secretary General ICID was invited for IUCN meeting on India – Bangladesh Trans-boundary Project in New Delhi on 19 November 2008. Secretary General offered some ideas for a joint cross country effort that can look into the regions' watershed as a whole. The meeting was attended by participants from Ganga Basin countries.

6.7 McGill University, Montreal, Canada

The second international 'McGill Conference on Global Food Security is planned to be held at McGill University at Montreal, Canada during 5-7 October 2009. The Conference will bring together senior policy and decision makers in international institutions and government, international scholars, representatives of the private sector, NGOs working in agriculture and food in the developing countries, to discuss possible strategies and interventions. President ICID as Conference co-chair is taking a lead to organize this important event and Canadian National Committee on Irrigation and Drainage (CANCID) will be fully associating itself with this conference. On invitation to

speaking the developing countries' perspectives, Secretary General M Gopalakrishnan will be attending this event. Secretary General will provide a brief on this event in PCTA.

6.8 King Hassan II, Morocco – Academie des Science

The Moroccan National Committee (ANAFIDE) held an official ceremony on 24 February 2009 to celebrate its 40th anniversary by organizing a special session on "the Future of Irrigation" in Rabat, Morocco. President Chandra Madramootoo was a special invitee for the function and he delivered a talk on ICID's perceptions on the issue. The function was attended by Mr. Abdallah Bekkali, President of ANAFIDE and Dr. Mohamed Ait Kadi, ANAFIDE Vice-President among others. In his presentation, Dr. Madramootoo in his speech focused on the fact that several countries have adopted new irrigation technologies in order to increase agricultural production and improve crop yields. Morocco went over the past twenty years through a significant decrease in its surface waters. Irrigated agriculture is the most affected sector by the scarcity. Explaining the "Green Morocco plan", an outline of the main aspects of the Kingdom's new policy in the development and modernization of irrigation was provided.

Item 7 : ICID Congresses/Conferences

7.1 23rd European Regional Conference, Ukraine, 18–21 May 2009

The conference was successfully held at Ukraine between 18 and 21 May 2009 and focused on the theme "Progress in Managing Water for Food and Rural Development". Nearly 85 professionals from Bulgaria, Germany, Hungary, India, Iran, The Netherlands, Poland, Romania, Russia, Spain, UK and Uzbekistan besides Ukrainians attended the event. President Hons. Bart Schultz and Peter Lee; Vice President and Chairman, ERWG Eiko Lubbe; Vice President Hons. Victor Dukhovny; Dr. Ricardo Segura Graino; Prof. Ferenc Ligetvari; and Secretary General M. Gopalakrishnan contributed and shared their views during the proceedings. Prof. Joachim Quast, GECID coordinated the deliberations on interstate cooperation on capacity building and young professionals.

At the conference, Secretary General Gopalakrishnan pointed out the important role of Ukraine in Europe in respect of food security. PH Peter Lee in his key note speech touched upon the active and inactive National Committees as spelt out in ICID By-laws.

7.2 60th IEC meeting and 5th Asian Regional Conference, New Delhi, India, 6-11 December 2009

The Indian National Committee on Irrigation and Drainage (INCID) is organizing the 60th International Executive Council Meeting and 5th Asian Regional Conference during 6-11 December 2009 at New Delhi, India. The theme of the conference is "Improvement in Efficiency of Irrigation Projects through Technology Upgradation and Better Operation and Maintenance".

Papers are invited on six sub-themes viz., (i) Modernization of public/state operated irrigation system and services; (ii) Public-private partnership in irrigation development and management; (iii) Integrated approach in agricultural drainage; (iv) Capacity development for modern irrigation management; (v) Impact of climate change on water resources availability and crop productivity; and (vi) Legal aspects in sharing of water resources. The Organizers have received more than 230 abstracts of papers from 24 countries. On the sidelines of the event, 7 special sessions, namely (a) Drainage, (b) Micro irrigation, (c) Groundwater, (d) Mekong Basin Initiative, (e) Aral Sea Basin Initiative, (f) ICID FAO Modernization of Irrigation Schemes, and (g) Water Governance besides some WGs' internal workshop, have been planned. The INCID has set-up a website <http://www.incid2009.delhi.org> giving details about the registration, accommodation, post conference study tours etc.

7.3 61st IEC and 6th Asian Regional Conference, Yogyakarta, Indonesia, 10-16 October 2010

The Indonesian National Committee on Irrigation and Drainage (INACID) is organizing the 61st IEC and 6th Asian Regional Conference during 10-16 October 2010 at Yogyakarta, Indonesia. The theme of the conference is "Improvement of irrigation and drainage efficiency through participatory irrigation development and management under the small land holding conditions". The objectives, sub-topics of the Conference are shown in **Annex 1**.

7.4 62nd IEC and 21st International Congress on Irrigation and Drainage, Tehran, Iran, 15-23 October 2011

The Iranian National Committee on Irrigation and Drainage (IRNCID) is organizing the 21st International Congress and 62nd IEC during 15-23 October 2011 at Tehran, Iran. The theme of the 21st Congress is "Water productivity towards food security". The Congress will discuss on Question 56 "Water and land productivity challenges" and

Question 57 “Water management in rainfed agriculture”, besides Symposium on “Climate change impacts on soil and water resources”, and Special Session on “Modernization of water management schemes”. Parallel to these, 8th International Micro irrigation Congress (IMIC) will also be held. The theme and subtopics of the 8IMIC as prepared by the IRNCID/ WG-ON-FARM were circulated amongst PCTA for approval (**Annex 2**). The topic and sub-topics of the 21st ICID Congress are shown as **Annex 3**.

7.5 24th European Regional Conference, the Netherlands, May 2011

The 59th IEC approved the proposal of the Netherlands National Committee (NETHCID) for hosting the 24th European Regional Conference. The Conference with the theme “Integrated Water Management for Multiple Land Use in Flat Coastal Areas” will be held from 16-20 May 2011 at Groningen, The Netherlands. The draft proposal as received from NETHCID is shown in **Annex 4**

7.6 3rd /4th African Regional Conference, Mali, 2011

During the Lahore IEC meeting, Mr. Adama Sangare, Vice Chairman, AFRWG and Secretary General, Mali National Committee (AMID) offered to host the 4th African Regional Conference in Mali in 2011. In the context of the ICID’s ‘Preference to Africa’ and also in view of the location of ARID headquarters in Mali, the proposal was unanimously approved by the 59th IEC.

In view of the cancellation of the 3rd African Regional Conference which was to be held in Nigeria in October 2009, the Mali Conference is now re-numbered as 3rd ARC. The Central office has written to Mr. Sangare to inform the proposed theme, topics and sub-topics of the Conference, as well as its venue and dates keeping in view the dates of the 24th European Regional Conference in The Netherlands (May 2011) and 21st Congress in Tehran (15-23 October 2011).

Item 8 : Any other business

- During the 59th IEC, a special session was organized at the instance of the Pakistan National Committee (PANCID) on “Sedimentation of Reservoirs” when several countries’ presentations were also included as available. The Lahore Declaration reflects the need for creation of an ICID Task Force which would also interact with other international water-related organizations working on the subject. In the interim meeting of the Management Board held in Istanbul (March 2009). A decision was taken that a request be made to the PANCID to moot out a proposal for the Task Force on Sedimentation of Reservoirs. Response is awaited.
 - One of the key topics that ICID facilitated related to Water and Food for Ending Poverty and Hunger in the 5th World Water Forum in Istanbul. Under this topic, one specific question was on Water for Bio-Energy or Food (Session 2.3.3). This session input was due to VPH Henri Tardieu: A balanced view was proposed on policy relating to encouraging bio-fuel avoiding conflicts in respect of land and water for food. Since we do not have an ICID Position Paper, the Management Board (MB) in its last meeting in Istanbul considered that constituting a Task Force might be useful and Central Office was asked to contact VPH Tardieu for a basic document. The Central Office has written to VPH Tardieu for his support in this regard. The PCTA may consider.
 - At the end of 58th IEC at Sacramento, the WG-CBTE concluded its work and wound up its activities. There was however, a recognition on the need for capacity building and the role that ICID should continue to play and if required, partner with other international organizations (like UNW-DPC) in this regard. It is for consideration if the new Workbody or revival of the erstwhile WG-CBTE can be proposed. During the visit of Prof. Tom Frank (UK), the former Chairman, WG-CBTE to the Central Office on 8 September 2009, the matter was discussed and Prof. Frank supported the idea.
 - Task Force on Compilation of Information on River Basins of the World: Dr. C.D. Thatte, Secretary General Hon., ICID vide his e-mail of 30 May 2009 to the Central Office has suggested to set-up an ICID Task Force on Compilation of Information on River Basin of the World.
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6TH ASIAN REGIONAL CONFERENCE
10-16 September 2010
Yogyakarta, Indonesia

The following theme and sub-themes are proposed by Indonesian National Committee on Irrigation and Drainage (INACID) for the 6th Asian Regional Conference:

Theme: Improvement of Irrigation and Drainage Efficiency through Participatory Irrigation Development and Management under the Small and Land Holding Conditions

Sub-Themes:

1. Irrigation under the Escalating Water Scarcity and the issue of Agricultural Land Conversion and Agricultural Land Fragmentation.
2. Challenges for Irrigation Agriculture under the Small Land Holders in the Approaching Decades:
 - (a) Irrigation Water for Food Security
 - (b) Irrigation Water for Supporting Human Living
 - (c) Irrigation Water for Supporting Environment
3. Improvement of Irrigation and Drainage Efficiency through Participatory Irrigation Development and Management under the Small Land Holding Conditions
4. Multifunctional Roles of Irrigation Water and the Role of Sustainable Balance of Ecosystem under the Small Holder
5. Synergizing of the Small and the Large Holder Irrigation under the Rapid Development of Rural and Urban Infrastructures.

Objectives:

The conference addresses specifically to circumstances of the Asian Countries by accommodating general situation in other countries. The specific objectives are:

- To contribute to a better knowledge of the scope and phenomena of water and land resources development and management towards achieving a sustainable development and
 - To extend further concept for engineering and management measures to overcome anticipated problems, considering constrains and limitations as well as other affiliated factors related to the theme/ sub-themes and topics.
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8th INTERNATIONAL MICRO IRRIGATION CONGRESS
18-19 October 2011
Tehran, Iran

Theme: Innovation in Technology and Management of Micro irrigation for Enhanced Crop and Water Productivity

Introduction

Global demand for food is likely to double in the next 25 to 30 years mainly due to population growth and change of diet. Many countries are endeavoring to achieve food security at a national level. A major portion of this new food demand would be fulfilled from irrigated agriculture. However, further expansion of irrigated lands is ironically limited by freshwater availability particularly in arid and semi-arid regions. Micro-irrigation has shown a promise to tackle such a complex and multivariable situation, by allowing higher water use efficiency, minimizing non-beneficial losses of water, reduced energy requirements for operation, and improved agro-technical practices.

Water quality is another impeding factor which has to be taken into account for further development of irrigated agriculture. Micro irrigation has demonstrated a better compatibility to use poor/ low quality waters by way of flexibility and better performance compared to other irrigation methods. However there are several bottlenecks associated with further expansion micro-irrigation which need to be reviewed and dealt with. Concerns such as adaptability to varied soil and water quality, lowering of maintenance costs, increasing of life duration of field distribution systems, innovation in technology to reduce capital costs, and developing crop specific management practices, etc.

Objectives

The objectives of the Congress are as follows:

- 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.

Sub-themes:

The 8th International Congress on micro irrigation invites and welcomes experts, irrigation managers, researchers, government and private agencies, farmers, technicians and students to contribute with their knowledge and experiences, by submitting papers on the following topics:

- Best management practices/ success stories of micro irrigation adoption;
 - Lessons learnt from failures in upscaling micro irrigation
 - Developments in Subsurface micro-irrigation;
 - Low cost and low energy consuming irrigation systems;
 - Automation in micro irrigation;
 - Micro irrigation in greenhouses;
 - Micro-irrigation for small scale farms;
 - Use of low quality waters in micro-irrigation;
 - Modeling, design and decision support system in micro-irrigation;
 - Advances in operation and cost effective maintenance of micro-irrigation systems;
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- Management and cost of micro-irrigation for large farms;
- Efficiency and productivity in micro irrigation systems
- Socio-economic consequences of the conversion of traditional systems to micro irrigation systems
- Analysis of long term sustainability of micro irrigation systems
- Technical performance and quality assessment of micro-irrigation systems.
- LCA (Life Cycle Analysis) applied to micro irrigation

**TOPICS AND SUB-TOPICS FOR THE
21ST ICID CONGRESS, QUESTIONS, SPECIAL SESSION,
SYMPOSIUM & HISTORY SEMINAR
15-23 October, 2011
Tehran, Iran**

The Topics and Sub-Topics for the 21st ICID Congress, as proposed by the Work Team (WT) based on its deliberations and approved by International Executive Council (IEC) are as under:

Question 56: Water and Land Productivity Challenges

- 56-1:** Water and Land Productivity; Concepts, Indices and Targets
- 56-2:** Innovations, Technologies and Best Practices for Sustaining and/ or Increasing Water and Land Productivity
- 56-3:** Productivity of Low Quality Waters for Irrigation Uses
- 56-4:** Improving Crop Water Productivity under Stressed Environment
- 56-5:** Irrigation and Drainage Management Improvements

Question 57: Water Management in Rainfed Agriculture

- 57-1:** Drainage and Flood Management in Rainfed Farming
- 57-2:** Water Harvesting and Conservation
- 57-3:** Supplementary Irrigation
- 57-4:** Rainfed Farm Management

Special Session: Modernization of Water Management Schemes

Symposium: Climate Change Impacts on Soil and Water Resources

History Seminar: Possibilities of Using Traditional Methods in Modern Water Management Systems

CONGRESS THEM : WATER PRODUCTIVITY TOWARDS FOOD SECURITY

In the last century, the world population has tripled. It is expected to rise from the present 6.5 billion to 8.9 billion by 2050. Water use has been growing at more than twice the rate of population increase in the last century, and although there is no global water scarcity as such, an increasing number of regions are chronically short of water. By 2025, 1.8 billion people will be living in countries or regions with absolute water scarcity, and two-thirds of the world population could be under conditions of water stress. The situation will be exacerbated as rapidly growing urban areas place heavy pressure on local water and land resources.

In most countries, the agriculture sector is the predominant consumer of water. In many cases, irrigated agriculture has played a major role in the development of rural economies, supporting economic growth and poverty reduction.

Although enough food is being produced to feed the world's population, there are still some 925 million undernourished/hungry people in the world. With nearly the same water and land resources base, we shall have to grow enough food to additionally feed about 2 billion people. Considering the increased demand for food resulting from expected increase in the standard of living, we need to double the level of food production. Securing our food supply is not negotiable. We all need safe and good-quality food in order to live a healthy life.

However, increasing water productivity holds the key to future water scarcity and food security challenges. There is scope for an accelerated increase in water productivity. Water productivity in agriculture has increased steadily in the recent decades, largely owing to increasing crop yields, and the potential still exists for further increase. However, the pace of such increase will vary according to the type of policies and investments, with substantial variations in the impact on the environment and livelihoods of rural populations.

21st ICID congress shall provide an opportunity to exchange updated knowledge and researches on Irrigation, Drainage and Flood Management that contribute to enhanced food production with less water, and better protection from uncontrolled flooding.

CONGRESS QUESTIONS

QUESTION 56: Water and Land Productivity Challenges

Today, agriculture consumes about 70 percent of all global water withdrawn, up to 95 percent in several arid and semi-arid countries. Increasing the efficiency of soil and water use and enhancing agricultural land and water productivity at all levels of the production chains are becoming priorities in a number of rapidly growing countries. A systematic approach to agricultural land and water productivity requires actions at all levels, from crops to irrigation schemes, and from national to international economic systems, including the trade in agricultural products. It calls for an informed discussion on the scope for improved land and water productivity in order to ameliorate intersectoral competition for water resources and optimize environmental, social and economic outcomes.

No doubt, irrigation should play a greater role to meet the food demand of the 3rd millennium by focusing on land and water productivity, while preserving rural environment. Researchers are invited to submit their papers on the following sub-topics:

56.1: Water and Land Productivity: Concepts, Indices and Targets

Developing Water and Land Productivity Concepts and Indices; Water and Land Productivity Framework; Approaches to Water and Land Productivity Improvement; Impact of Climate Change on Water and Land Productivity Trends; Strategies to Systematically Improve the Productivity; Planning to Enhance the Water and Land Productivity; Role of Various Inputs towards enhancing Water and Land Productivity; Measuring Productivity Indices; Productivity Analyzing Methods; Monitoring and Evaluation; Performance Assessment Frameworks; Adverse Impacts of Water Productivity Increase.

56.2: Innovations, Technologies and best practices for sustaining and/ or increasing Water and Land Productivity

Water-Saving Technologies; Innovations on Increasing Water and Land Productivity; Innovations on Soil Fertility Improvement; Effect of Water Pricing Policy on Water Productivity; Techniques on Improving Irrigation Methods; Technology to Improve Water Productivity in Greenhouse Farming; Developing Local Technologies; Adapting Technology According to Farmers Knowledge; Integrating Indigenous Knowledge with Modern Development; Revisit Irrigation Techniques; Nanotechnology and Bio-Technologies in Irrigated Agriculture; Application of Information Technology (IT) in Irrigation and Drainage; Controlling Pest and other Damages through Sustainable Land Management; Agri-business Food Chain Approach to Improve Productivity

56.3: Productivity of Low Quality Waters for Irrigation Uses

Sustainable Use of Low Quality Water (LQW) for Irrigation Purposes; Technologies for Managing LQW in Irrigation; Measurements of Water Quality; Impact of Low Water Quality on Crop Production; Guidelines, Principles and Policy Frameworks on Use of Low Quality Water; Monitoring and Management of Water Quality; Classification of Low Water Quality; Managing Use of Saline Groundwater and Surface Fresh Water; Adaptation of Crops to Low Quality and Brackish Water; Socio- economical and Environmental Impacts of Using LQW for Irrigation.

56.4: Improving Crop Water Productivity under Stressed Environment

Soil – Water Management under Water Stress Conditions; Deficit Irrigation; Evapo-Transpiration Management; Soil Moisture Retention Techniques; Genetically Modified Crops to resist Stressed Environment; Agronomic Enhancement to Cope with Stressed Environment; Improving Soil Fertility Management to Control Land Degradation.

56.5: Irrigation and Drainage Management Improvements

Training and Education; Capacity Building in Irrigation and Drainage; Operation and Maintenance of Irrigation Systems; Performance Assessment of Irrigation and Drainage; Decision Support System; Benchmarking of Irrigation and Drainage Systems; Rehabilitation and Modernization of Irrigation and Drainage Systems;

Organizational/Institutional Reforms; Participatory Irrigation Management (PIM); Irrigation Management Transfer (IMT); Comprehensive Research on Irrigation and Drainage Management; Strengthening Accountability for Irrigation Service Delivery.

Question 57: Water Management in Rainfed Agriculture

Sixty Percent of world harvested crops are coming from rainfed agriculture covering 1.2 billion hectares of land. There are also six billion hectares of natural grass land and pastures which are contributing to human food chain. In spite of such a vast rainfed area available to the human utilization, its contribution to the global food security is limited. No proportional efforts have been put forward by governments, international agencies and concerned NGOs to enhance the benefits of such natural resources. Little development has been contemplated to the traditional dry farming in past decades, particularly in developing countries. The productivity of rainfall, so called green water, in these regions is relatively low and there is considerable scope for improvement, through rainfall management, agro-technical and agro-business innovations, investments in infrastructures and technology accompanied by biotechnology enhancements to introduce appropriate varieties of crops.

57.1: Drainage and Flood Management in Rainfed Farming

Spate Irrigation; Drainage Management in Rainfed Agriculture; Bio Drainage in Water Logged Area; Flood Management to Increase Soil Moisture Storage; Controlled Flooding and the Role and Importance of Floodplain Management in Food Production; Calamity Polders (as Part of Flood Management).

57.2: Water Harvesting and Conservation

Low-Cost Water Storage; Micro Catchments Water Harvesting Systems; Hillside Runoff and Conduit Systems; Floodwater Harvesting and Stream Diversion; Water Harvesting Techniques; Identification of Unconventional Water Resources; Appropriate Technology to Utilize Unconventional Water Resources; Suitable Technology to Utilize Fog; On-Farm Storage of Harvested Water and their Design; Management and Economic Viability; Impact of Water Harvesting on Stream Flow and the Environment; Reduction of Water Losses from On-Farm Storage; Application of Mono-layers to Suppress Evaporation Losses.

57.3: Supplementary Irrigation

Appropriate Scheduling for Supplementary Irrigations; Economical Consideration of Supplementary Irrigations; Promote Efficient Pre-Irrigation Techniques; Cropping Strategies to Mitigate Water Scarcity Effects; Small Scale Irrigation Systems for Small Enterprises; Drought Mitigation through Supplementary Irrigation.

57.4: Rainfed Farm Management

Separate Policy for Water Resources in Rainfed Areas; Water and Soil Conservation Methods; Strategies for Soil Water Enhancement; Improvements in Rainfed Crop Yields; Policy Reform and Infrastructure Investments in Rainfed Areas; Improvement in Rainfall Effectiveness; Applications of Super-absorbers in Rainfed Farming; Modern Technology to Improve the Soil Water Holding Capacity including Super-absorbers and Polymers; Biotechnological Methods to Increase Crops Productivity; On-Farm storage; Business Models for Successful Rainfed Agriculture.

Special Session: Modernization of Water Management Schemes

Irrigation is critical to food security and economic growth in the World. The wide gap between actual and desirable performance threatens the sustainability of irrigated agriculture. The challenges for increasing the productivity of irrigation systems have forced countries to think of new strategies. The need therefore is for diagnosis of existing irrigation services and modernization options. Irrigation modernization is defined as "a process of technical and managerial upgrading of irrigation schemes with the objective to improve resource utilization (labour, water, economics and environment) and water delivery services to farms; or the transition from supply-oriented to service-oriented irrigation water delivery" (FAO). The current emphasis on technical and managerial upgrading policy has several important implications for irrigation.

Irrigation institutions need to link their central task of providing irrigation services to agricultural production and to integrate their water demands and uses with other users in the basin. An enhanced appreciation of the water delivery and flows across landscapes and the circulation of groundwater within aquifers will lead to informed decisions on the use and reuse of agricultural waters. The concerned agency would like to know how the delivery

system and the on-farm irrigation systems are to be managed. In order to exchange updated knowledge and researches on modernization of agricultural water and irrigation schemes, authors are invited to submit papers related to the subtopics mentioned / suggested below:

- Institutional modalities and financial implications;
- Policy and legal implications;
- Modernizing infrastructure;
- Use of GIS & RS for the operation of irrigation systems;
- Monitoring, evaluation and performance;
- Automation of irrigation systems for better operation;
- Applying improved administrative principles and techniques (advanced techniques of data collection methods related to crops, cultivated areas, irrigation requirements, flow measurement devices & water charges);
- New concepts to upgrade irrigation services;
- Capacity development, and;
- Environmental issues.

Symposium: Climate Change Impacts on Soil and Water Resources

A great deal of circumstantial events during the past decade or two suggested that the earth's climate is changing. More importantly, scientific research on climate trends and the Earth's responses during the past 150 years indicate that change is now occurring much more rapidly than during past historical period. There can be little doubt that during the twentieth century, humans altered the Earth's climate by emitting huge quantities of green house gases. If we continue on our present course, life on Earth will be extremely altered. The very sustainability of Earth's life – support system is now in question.

The science of climate predications has improved immensely during the past few decades. New and more refined models, incorporating many of the known feed backs are available. Nevertheless, several important uncertainties in the current numerical models frustrate predication of the climate. Chief among these is the prediction of human behaviour.

Climate change may affect the global Food security by altering the existing patterns of water availability and agricultural productivity through the following phenomena:

- Increasing precipitation at higher latitude leading to increased winter/spring runoff and flooding in some areas.
- Decreasing precipitation and increasing drought frequencies at lower latitude countries.
- Sea level rise and associated salt water intrusion could negatively impact agriculture.

The following regions are affected:

- Low latitude, low – income areas will experience the greatest impacts.
- Arid to semi arid region appears most vulnerable to climate change.

How can agriculture adapt to these changes?

- Technological adaptation, such as improved irrigation practices, demand management approaches, development of non conventional water resources, and technological innovations.
- Agro technical adaptation, such as alternative cropping pattern, soil water and fertility treatments.
- Government agricultural policies, such as enhancing agricultural insurance policy, manipulating water allocation policies.

Authors are invited to present papers related to these issues of climate change and food security.

History Seminar: Possibilities of Using Traditional Methods in Modern Water Management Systems

The development of societies especially in arid and semi-arid areas in the last 5,000 years is closely connected with water management problems. These requirements have shaped the relevant societies and their structures. In the course of the centuries, systems and methods under variable conditions have conclusively demonstrated their sustainability. Today, the knowledge and structural remains of these methods are not only interesting archaeologically and historically, but can also help solve current problems.

Modern water management in many regions of the world has to cope with two particular problems. One problem is climate change and the other problem is population growth including the wish for a higher standard of living in these regions, which leads to constantly increasing demands for water.

In this context, traditional methods, compared with modern technology, offer several advantages in rural areas:

- Sustainability of these methods have already been proved by long experience with them. However, they have fallen into oblivion as a result of "modernization" and social changes.
- The methods can usually be implemented with simple means and locally available materials.
- Skilled workers and local people can apply the methods, if necessary after instructions, and later maintain the infrastructure by themselves.
- They are very economical in their consumption of primary energy, use renewable energies and can thus function in a climate-neutral way.
- In a profitability analysis, the traditional methods, for underdeveloped and sparsely populated regions, can have more advantages than "modern" methods.
- Local people feel a sense of self-worth because they are actively engaged in the work with which they can identify themselves.
- If existing remains are integrated, they can be better preserved and the function remains visible.
- Installations in use are more interesting for tourists. Appropriate tourism can be an additional source of income for the region.
- Old methods are often better suited to the natural eco-system. Thus, overuse of existing resources is usually out of the question (e.g. old lifting devices can remove only as much groundwater as is created afresh, unlike electric pumps).
- The methods can, in conjunction with modern systems, open up new perspectives (in the area of irrigation, e.g. the lifting and extraction of water in connection with micro-irrigation).

The seminar will cover all aspects of implementation of traditional methods into modern water management systems: social and structural conditions, possibilities of reconstruction and reintegration, maintenance, benefits and limitations. Good examples and all kinds of messages to show that we can learn a lot from traditional methods.

DRAFT PROPOSAL
24TH EUROPEAN REGIONAL CONFERENCE
“INTEGRATED WATER MANAGEMENT FOR MULTIPLE LAND USE IN FLAT COASTAL AREAS”
16-20 May 2011, Groningen, The Netherlands

Subtitle: “Water management for sustainable land use in tidal zones”

Background

Within the Netherlands National Committee of the International Commission on Irrigation and Drainage (NETHCID) the idea to organize an ICID Regional European Conference on “**Integrated water management under multiple land use in flat coastal areas**” was discussed in Sacramento, USA during the ICID meetings in October 2007 and further elaborated resulting in this draft proposal.

Scope

The reason for this initiative is the increasing importance of coastal areas for integrated water management for multiple land use, such as agricultural food production and the increasing vulnerability of especially tidal areas, deltas and estuaries due to increase in population density and value of public and private property, subsidence and effects of climate change. In these geographical areas water management and where applicable flood protection for land use is related to many issues, such as flood risk management, land reclamation, rural reconstruction, salt water intrusion and habitat development. Also the institutional settings of organisations of water management are important aspects. In Europe the question how to deal with the complex requirements when following the various relevant European Directives is an example of this last issue. Flat coastal areas are widespread in Europe, so for most European (ICID member) countries the conference will be relevant, as well as for other countries with large coastal areas. Exchange of lessons learned can be very helpful to cope with future challenges and develop sustainable and cost-effective approaches for water management and flood protection on behalf of integrated development and management of land use in flat coastal areas.

Issues and themes

The focus is on integrated approaches towards water management and land use in (manmade) flat coastal areas in Europe, in relation to coastal zone management. The core issue is on water management and flood protection in such areas with respect to land use. Consequently, urbanisation as such is not suggested as central theme. Possible themes to be discussed and elaborated are:

- Main theme: Integrated water management for multiple land use in flat coastal areas;

Topic I. Integrated water management;

- Flood risk management in flat coastal areas under the influence of changing storm surges, subsidence and impacts of climatic changes in land use;
- Role of ecology and habitats in water management and flood protection
- Water management under multiple land use;

Topic II. Challenges and opportunities of salt-water intrusion

- Tidal water management e.g. Venice, Italy; St. Petersburg, Russia; Haringvliet, the Netherlands
 - Fresh water/saline water interactions in coastal areas and consequences for ecology and water quality
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Topic III. Role of European legislation, directives, in the development and management of flat coastal areas

- Institutional arrangements for water management and flood protection, such as water boards, and the role of governments, provinces, communities and civil society organisations e.g. in the framework of ICZM(Integrated Coastal Zone Management);
- Legal arrangements, such as the European water Frame Work Directive.

Topic IV. Societal and economic aspects such as cost-benefit analyses of possible measures.

- Historical perspective of developments in flat coastal areas

Further Steps

The proposal will be further elaborated in cooperation with members of the ICID Working Groups on Sustainable Development of Tidal Areas, on comprehensive Approaches to Flood Management and the European Regional Working Group. We propose to organize the meeting as the 24th ICID European Regional Conference in 2011. The chairman of the European Regional Working Group supports the idea and has suggested to consider an organization by the NETHCID with contributions by the German National ICID Committee (GECID). This is appropriate, as both in the Netherlands and Germany extensive experience has been gained on the items of the proposed conference. Groningen in the northeast of the Netherlands is the preferred location, because it is as an accessible town in the coastal area of the Netherlands, not far from the German coast.

This proposal was accepted and the venue was approved at the ICID Congress in Lahore, Pakistan, October 2008. As a helpful precursor for the preparation of the proposed European Regional Conference an informal workshop could be held during the ICID Asian Regional Conference in Yogyakarta, Indonesia in 2010. There, appealing responses might be expected from member countries within Europe, but hopefully from outside Europe as well, such as Korea (coastal areas), India (Kerala and other coastal lowlands), Japan, Bangladesh and Australia (lower Murray- Darling basin).
