



News Update

ICID•CIID

INTERNATIONAL COMMISSION ON IRRIGATION AND DRAINAGE

Diamond Jubilee Year (1950-2010)

February 2010

From Secretary General's Desk...



Dear Colleagues,

I am delighted to inform you that ICID received an invitation from Asian Development Bank to join their Conference on "Water: Crisis and Choices" in Manila in October 2010. ADB is looking forward to ICID to contribute in its Session on "**Technologies in Irrigated Agriculture: Costs and Benefits**" coming under the overall theme on "Water and Food: Productivity Gains"; in respect of several other themes related to the topics, other sister global agencies are being involved. The Central Office has, in line with ADB's expectations, commenced action on a paper which will cover all technologies in irrigated agriculture touching upon costs and benefits. The ICID paper will be endeavoring to highlight on:

- ❖ analytical exploration of alternative irrigation technologies and technologies for improved management and productivity of existing systems including on-farm management in Asia;
- ❖ examining each one of the alternatives for its applicability identifying the necessary supporting conditions;
- ❖ demonstrating how the technologies can help support and reinforce institutional and management reforms;
- ❖ explaining the expected costs and benefits and strategies for widespread application if possible with same base data made available by our national committees in Asian Region;
- ❖ draw on recent actual or, preferably, emerging cases to illustrate the relative costs and benefits of possible options.

May I seek from the National Committees in the Asian Region to provide their perceptions and inputs based on their country's experiences to Central Office? I also look forward for close interaction with all working group chairs who will be interested in the ICID contribution, particularly the ASRWG. Right now, we lack sufficient data on costs and benefits aspects and individual Asian Regional



NC's responses highlighting such new technologies that have been identified to reduce costs and enhance benefits as experimented in their own countries, will be valuable. New measures to enhance productivity in management would also be useful.

The 60th IEC minutes were placed on our website by the end of January, 2010; I am sure that many of you would have seen them, particularly those who could not make it to Delhi last December to join us during the Golden Jubilee annual Executive Council meeting. I seek all working group members to follow up actions decided in their work bodies so as to show a significant achievement of targets set by October next when we meet in Yogyakarta, Indonesia.

May I inform the ICID fraternity of a laudable initiative by VP Lucio Ubertini, in the end? VP Ubertini is launching action to put together some activities aimed at revitalising the interest of Latin American countries in ICID, whom we do not see often to the extent desired in our recent global meets. He had made contacts with various embassies of the region in Rome which has culminated into impending one day seminar under the theme "Water and Food, Water and Health", at the National Research Council of Italy on 25th February. Ambassadors and/or their delegated representatives are likely to attend. As a follow up, a meeting is likely to be scheduled in one of the Latin American countries in April. You will join me in wishing VP Ubertini all success in his sincere efforts to revitalise the American Regional Working Group with his laudable efforts on all our behalf.

Best regards,

M. Gopalakrishnan
Secretary General

News from ICID National Committees

Iran (IRNCID)

Iranian YPF visited German Hydraulic Structures

At the invitation of Deutsch Water History Society (DWhG) and German National Committee of ICID (GECID), 14 Irrigation professionals accompanied by two professors visited various hydraulic structures, research centers, and Jugendherberge Kassel University in Germany during 8-19 August 2009. Sixteen German students and professionals accompanied the Iranian delegates as well. Dr.-Ing. Klaus Röttcher and Professor Henning Fahlbush organized the technical visit successfully. The visit covered Bergpark Wilhelmshöhe, one of the Germany's attractive water parks; Steinhof Sewage Treatment Plant (STP), Braunschweig agricultural center and farms, flood reservoir dams of Ehringen and Twiste, Landgrave Carl Canal, cities of Trendelburg and Hann Munden, Waldeck castle, Hemfurth I and Waldeck I hydraulic power plants, projects of flood control, potable water supply, and Baunatal water treatment plant, water museum Neue Mühle with a lot of antique equipment, Rotenburg and its attractive ship-lock structure, and Ecker Dam, Potable water purification and filtration equipment, Harz mining area and drainage systems and various departments of Kassel University. A subsequent forum helped to study financial resources and water scarcity challenges of a hypothetical region, and proposed procedures to solve the probable problems giving an opportunity to learn the key environmental engineering aspects and effective initiatives, including people participation in most of hydraulic projects.

IRNCID, GECID, and Deutsch Water History Society (DWhG) had earlier exchanged a trilateral MoU in 2007 that enabled this scientific visit. [Source : IRNCID]

USA (USCID)

The USCID Fifth International Conference on Irrigation and Drainage was held during 3-6 November, 2009, in Salt Lake City, Utah. The Conference theme was *Irrigation and Drainage for Food, Energy, and the Environment*. Water professionals are facing new challenges related to increasing water scarcity, and competing uses of water. These uses include water for food, energy, and the environment. More than 120 people from eight countries attended the Conference. Twenty five delegates participated in a VIP tour of the Jordanelle Dam and Hydroelectric Plant conducted by the Central Utah Water Conservancy District. The participants walked through the new state-of-the-art hydropower production and control facilities. After the visit to Jordanelle, the participants were able to participate in hands-on flow measurement of "SonTek/YSI Incorporated" to appreciate real-time flow measurement capabilities.

Luncheon speaker on 3 November 2009 was ICID President Chandra Madramootoo from McGill University in Canada. The opening plenary session began with outstanding presentations by Michael Styler, Executive Director of the Utah Department of Natural Resources; Kerry McCalman, Manager of the Bureau of Reclamation's Power Resources Office; Gene Shawcroft, Assistant General Manager of the Central Utah Water Conservancy District; James E. Ayars, Agricultural Research Service, Franklin E. Dimick of Dimick Water Resources Engineering; and Charles M. Burt of the California Polytechnic State University. The day was capped off by a 'Meet the Exhibitors Session' and a Welcome Reception/Exhibition.

Two concurrent sessions were conducted on 4 November 2009 on Applications of Technology and Environment and Drainage. The sessions continued the theme of Application of Technology and added a focus on Water and Energy Efficiency. The presentations provided an excellent mix of theory and application, with good case studies. The dinner speaker was Tage I. Flint, General Manager of the Weber Basin Water Conservancy District. He gave an overview of issues facing his water district and the need for avoiding extreme positions while approaching problems.

An excellent Poster Session was held on 5 November 2009. Oral presentations focused on Water Policy and case studies. The luncheon speaker was USCID President and VPH Mark Svendsen. He discussed the Quality of Water Governance in the Middle East. An excellent panel discussion moderated by MaryLou Smith of Aqua Engineering was also held. The closing Keynote Speakers were John Mann, Utah's Assistant State Engineer and Anne Castle, Assistant Secretary, Water and Science, U.S. Department of the Interior.

Participants enjoyed an all-day tour of northern Utah including the Utah State University water lab and Campbell Scientific, manufacturer of instrumentation, data loggers and data acquisition systems on 6 November 2009. The Conference brought together water resource professionals from the United States and their counterparts and supporters from other countries. These included professionals from the U.S. and abroad involved in irrigation, drainage, and water resources planning. [Source: USCID]

Uzbekistan (UzNCID)

Annual Report 2009

National Committee on Irrigation and Drainage (UzNCID) under the Ministry of Agriculture and Water Resources of the Republic of Uzbekistan has carried out its activities in 2009 in accordance with the Plan of Works of 2009.

During the 3 meetings held, matters related to technical rehabilitation of large pumping stations, improvement of land reclamation conditions of the irrigated lands, effective use of investments allocated for water management as well as other matters of large importance for increase of soil fertility and rational use of water resources of the region were discussed. The members of UzNCID have attempted to put into practice the decrees of the President of the Republic of Uzbekistan and decisions adopted by the Government for improvement of water management.

Members of the UzNCID have further rendered practical assistance to water users associations for distribution and rational use of water resources,

construction of hydroposts, effective use of excavating machinery, land reclamation activities, effective use of credit (provided by the state and international financial institutions) in order to improve technical conditions of large pumping stations and hydrotechnical structures of the Republic.

A number of Seminars were organized together with the Water Users Associations and farmers in the field of rational use of irrigation water, introduction of the improved methods of irrigation (drip and irrigation sprinkler irrigation etc.) and water accounting.

Scientific and research journals, newsletters, technical information and other printed editions received from the ICID were systematically disseminated among specialists of the Ministry of Agriculture and Water Resources, and other research organizations of the Republic.

Members of the UzNCID participated in the 5th General Assembly of the World Water Council held during 14-16 October 2009 in Marseilles, France. At this meeting the Republic of Uzbekistan participated for the first time as a full and equal member. The Republic of Uzbekistan was the first state among the other CIS countries to become a member of the WWC.

The Republic of Uzbekistan is closely collaborating with a number of international organizations, including United Nations Development Program, World Bank, Asian Development Bank, Swiss Agency on Cooperation and Development Global Ecological Fund and World Water Council (WWC).

Three members of the UzNCID participated at the 60th International Executive Council (IEC) meeting of ICID and 5th Asian Regional Conference held during 6-11 December 2009 at New Delhi, India when a workplan for 2010 was discussed. The UzNCID also discussed financial plan for 2010 considering regular annual subscription to ICID. UzNCID acknowledged ICID Central Office for their timely distribution of technical information and material related to Irrigation and Drainage. [Source: UzNCID]

Central Office welcomes new Vice President Mr. A.K. Bajaj

On the first day of the year, Central Office invited Mr. A.K. Bajaj (India) and welcomed him as new Vice President of ICID. He was facilitated by Secretary General M. Gopalakrishnan, professionals and other staff members.



Er. Bajaj is Chairman of Indian National Committee of ICID (INCID) & Central Water Commission (CWC) and Ex-officio Secretary to Government of India, Ministry of Water Resources.

President Chandra Madramootoo delivers a Keynote address in USCID

ICID President Chandra Madramootoo delivered a luncheon speech during USCID Fifth International Conference on Irrigation and Drainage on 05 November 2009 at Salt Lake City, Utah.

The world population is expected to reach over 6 billion by the year 2050. This will necessitate a doubling of current world food production capacity, in order to feed this population growth. Given that over 40% of the world's food supply comes from an irrigated land area that represents only about 17% of the world's cultivated area, it is imperative that increased focus be given to both irrigated and rainfed agriculture, in order to meet future food demands. The recent food, economic and energy crises have placed added burdens on the vitality, productivity and utmost necessity of the agricultural sector. Water management for food production is therefore at the heart of the today's global challenge of food security for human and economic development.

In light of the food crisis, the challenges that irrigated agriculture will face in the coming decades are: dwindling water supplies due to other competing water uses, contamination of water supplies, low water use efficiencies, lack of adequate storage capacity, and climate change impacts. Irrigated agriculture will face growing societal pressures to ensure that food production is undertaken within a framework that includes protection of adjoining sensitive ecosystems. This will necessitate technological and institutional innovations in the irrigation sector such as: development of more efficient water application technologies, implementation of advanced monitoring and control systems for precision irrigation, control of non-point source pollution, water reuse and recycling systems, use of low quality waters in irrigation, monitoring of in-stream flows, construction of water storage systems, and providing the appropriate public-private partnerships to foster financial investments for irrigation infrastructure.

The research and development innovation agenda defined above will not succeed without a comprehensive capacity building program. This will necessitate significant investments in the expanded training of engineers, scientists, extension agents, and irrigators. Universities, technical colleges and schools will be called upon to develop new curricula and training programs geared to the different human resources needs.

The role of rainfed agriculture in food production and food security must not be underestimated given that over 800 million people live in the semi-arid tropics, and derive their livelihoods from agriculture. This will necessitate research and development, training, and financial investments in technologies such as water harvesting systems, drought and salt tolerant crops, and soil moisture management.

The future of the irrigation sector will also depend on how well it copes with drought mitigation and drought proofing, in light of climate change, the demand for biofuels, and farmer access to credit and markets. The overarching theme is: Water management for ending poverty and hunger.

Water Quality: Theme of World Water Day 2010

Every year, 1,500 cubic kilometers of wastewater are produced globally. While waste and wastewater can be reused productively for energy and irrigation, it usually is not. In developing countries 60 percent of all waste is being discharged untreated, because of lack of regulations and resources. And population and industrial growth and new sources of pollution and increased demand for clean water add to the equation. Human and environmental health, drinking and agricultural water supplies for the present and future are at stake, still water pollution rarely warrants mention as a pressing issue.

To do something about, the UN-Water has chosen *Communicating Water Quality Challenges and Opportunities* as theme for World Water Day 2010. The overall goal of the World Water Day on 22 March 2010 campaign is to raise the profile of water quality at the political level so that water quality considerations are made alongside those of water quantity. Please access their website <www.worldwaterday.org> for more information.

New Additions to ICID's TDS Database (January 2010)

The additions during the months to the TDS Database are:

Article Section – 242 additions (Articles / Papers)

Abstracts of papers – 60th IEC Meeting and 5th Asian Regional Conference on Improvement in Efficiency of Irrigation Projects through Technology Upgradation and Better Operation and Maintenance, 6-11 December 2009, New Delhi, India, Govt. of India – Ministry of Water Resources/Central Water Commission (CWC)/Indian National Committee on Irrigation and Drainage (INCID) (242 papers)

Book Section – 37 additions; till date 31476 additions have been made to TDS database. The Text Delivery Service (TDS) has received three requests during the period from India and the Netherlands.

The Text Delivery Service (TDS) database can be accessed by visiting ICID website: www.icid.org.



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The ICID journal, *Irrigation and Drainage* is available online FREE via Wiley InterScience® for all ICID office bearers, work body members and subscribers.

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For 2010 Wiley has provided each ICID office bearer, work body member and subscriber a membership registration number. Your e-mail address is your user name and you can choose your own password.

Now available on the website **Volume 59.1**, Special Issue with selected papers from the Lahore Congress, to be published in February. Guest editor Bart Schultz. Right click on <http://www.interscience.wiley.com/journal/ird> for direct access to the home page of *Irrigation and Drainage* at the Wiley site, or at the Abstract or the PDF of the concerned paper for a direct link to respectively the abstract or the full paper.

Editorial

Peter Lee

Editorial. Abstract, PDF

Research Articles

Nobumasa Hachio, Shiro Ochi, Yutaka Matsuno

The evolution of irrigation development

in monsoon Asia and historical lessons. Abstract, PDF

Jianming Ma, Xuming Tan, Nianqiang Zhang

Flood management and flood warning system in China. Abstract, PDF

Asrar-UlHaq

Performance of farmers' organizations in Punjab, Pakistan: The challenges and way forward. Abstract, PDF

Charles L. Abernethy

Governance of irrigation systems: Does history offer lessons for today? Abstract, PDF

Review Article

Chandra A. Madramootoo, Helen Fyles
Irrigation in the context of today's global food crisis. Abstract, PDF

Research Articles

Ravindra Kumar, Navin Shukla, D. P. Nigam, V. K. Verma

Modernizing Sarda Sahayak canal system: The Masscote approach. Abstract, PDF

A. S. Shakir, N. M. Khan, M. M. Qureshi

Canal water management: Case study of upper Chenab Canal in Pakistan. Abstract, PDF

Mukesh B. Joshi, Vivek P. Kapadia

Sharing water in the 21st century: Rethinking the rationale? Abstract, PDF

ICID

M. Gopalakrishnan

60th international executive council meeting and 5th Asian Regional Conference. Abstract, PDF

ICID WatSave Award 2010

Invitation for Nominations

ICID instituted 'WatSave Awards' in 1997 to recognize 'outstanding, contribution to water saving in agriculture' across the world. Entries for the nominations are now open.

Awards are given in four categories viz. (i) Technology; (ii) Innovative Water Management; and (iii) Young Professionals; and (iv) Farmer. Each award carries prize money of US\$ 500 and a Citation. The ICID WatSave Awards will be presented at the 61st IEC meeting scheduled to be held in October 2010 at Yogyakarta, Indonesia. The Awards are only made in respect of actual realized savings and not for promising research results, plans and/or good ideas/ intentions to save water.

Nominations are invited for the 'WatSave Awards 2010' from individuals/team through National Committees/Committee. The entries are open to all professionals / teams from ICID member countries as well as non-member countries. In case of an entry from a 'non-member' country, the nomination has to be routed through and validated by an active National Committee of ICID, who should be in touch with the nominee and is aware of his work'. The contact coordinates of the ICID National Committees/ Committee, the 'Nomination Form', 'Conditions and Criteria', and 'Check list' of the documents to be submitted are available for download at www.icid.org/awards.html. The deadline for receipt of the entries from the applicants along with a completed 'Nomination Form' etc. to the National Committee (NC) is **30 April 2010** and from NCs to Central Office ICID, New Delhi is **31st May 2010**. The entries should be submitted electronically to respective National Committees well in advance of the deadlines to facilitate processing. The nominations sent directly to the Central Office, ICID will not be entertained.

The selection of the winners from amongst the nominations received will be made by an International Panel of Judges. National Committees are urged to give a wide publicity to these awards in their country among actual farming communities and persona actively engaged in water savings/conservation practices. For further information, please contact Dr. Vijay K. Labhsetwar, Director, ICID at E-mail: icid@icid.org

INTERNATIONAL COMMISSION ON IRRIGATION AND DRAINAGE

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