From Secretary General’s Desk...
Dear Friends,

I had the privilege to participate in two important events held in India by WMO and FAO with whom ICID partners in several fronts. The FAO-UN in association with Karnataka Neeravari Nigam Limited (KNNL) in the southern peninsula State of India held a field programme of assessment of 104 kms. Ghataprabha Left Bank Canal under Hidkal Dam on the River Krishna. KNNL has assumed the responsibility of the irrigation system management of this existing project under operation for nearly 3 to 4 decades after the storage dam was built in the 1970s. As many of you might have been aware of, IPTRID and FAO recently brought out a Manual on Participatory Rapid Diagnosis (2006); this formed part of the Agenda in our WG-DMIS meeting in Kuala Lumpur in September 2006.

The Rapid Appraisal Procedure (RAP) incorporates a well laid out and interactive procedure to diagnose performance and service levels within an irrigation system; it helps a better insight of the needed improvements in deliveries in such segment(s), investment prioritization under management which can maximize the goal in service delivery.

I was invited by KNNL (Irrigation System Operators) to join the concluding session at Project site when the summary of the two weeks’ intensive field exercise was discussed. The perceptions of those who were trained indicated that there exists an excellent opportunity to face the challenge of efficiency improvement of systems using the approach of RAP and MASSCOTE1. It is interactive, flexible and takes on board the perceptions of WUAs and other stakeholders. It could be fine-tuned to the needs of the individual system needs. FAO has chosen the KNNL scheme in the Krishna River Basin as one of the pilot projects to introduce the concept of RAP / MASSCOTE. This is the third in series (after other projects in Malaysia and Africa (Ethiopia and Kenya)). Experience gained and lessons learnt in this project would enable us to improve our approach in improving efficiency and performance of I&D sector.

Ghataprabha irrigation system typifies many common problems seen in a few cases in irrigation development in India: like, change of cropping pattern to a high demand and high value crops (like sugarcane) in the upper reaches of the canal command (though not envisaged in the project planning stage), abstraction of ground water to meet the deficits in surface supplies in the middle reaches than envisaged, an inadequate supply to tail reach farmers. In the instant case, the recharge to ground water by a downstream reservoir has helped to overcome the problem. The dynamics of the system needs can be captured in RAP; solutions for further action on management can have a fresh and remarkable new look.

I attended the meetings of WMO’s Committee on Agro Meteorology held in New Delhi during this month which was also preceded by an International Workshop on the Risk Management in Agriculture Factoring Meteorological Uncertainties. There were quite a few common grounds in the action plans of ICID and WMO. WMO’s efforts inter-alia, cover risks due to extreme climatic events like drought, floods, cyclones etc. It specifically covers the risk due to Global Climate change to rainfed agriculture and relevant coping strategies. WMO workshop took on board the peculiarity of the problems faced by developing countries where the small and marginal farmers are large and are severely affected to agro meteorological risks. The proceedings available in the WMO web site would be of interest to ICID family. One of the Open Area Programme Groups (OPAGs) in CAgMet (WMO) has special ‘Expert Teams’ (akin to ICID Work Groups) to address the three vital areas: “Impact of Climate Change / Variability to Long-Range Predictions for Agriculture”, “Reduction of the Impact of Natural Disasters and Mitigation of Extreme Events in Agriculture, Forestry and Fisheries” and “Contribution of Agriculture to the State of Climate”. Many of you must be aware of the above and may wish to see recent additional contributions.

Best regards,

M.Gopalakrishnan
Secretary General

1 Mapping System & Services for Canal Operation Techniques

Memorandum of Understanding (MoU)

The MoU between Indonesian National Committee on Irrigation and Drainage (INACID) and Iranian National Committee on Irrigation and Drainage (IRNCID) was signed on 14 September 2006 during the 57th International Executive Council (IEC) meeting at Kuala Lumpur in Malaysia for bilateral collaboration. Dr. Hafied A. Gany, INACID and Dr. Rasool Zargar, Chairman, IRNCID signed the MoU on behalf of their respective National Committees.

The Main Objectives of the MoU were – (i) exchanging technical and scientific progresses and achievements on Irrigation and Drainage; (ii) assigning studies and projects to groups of experts to be accomplished in the other country in spirit of cooperation for mutual benefits; and (iii) inviting groups of experts from the other country and providing appropriate facilities for proposed studies or projects.

Other MoUs between NCs are being evolved and those on the anvil, _inter-alia_ include Chinese National Committee on Irrigation and Drainage - Indian National Committee of ICID (CNICID-INCID), Egyptian National Committee on Irrigation and Drainage – Indian National Committee of ICID (ENCICID-INCID) etc.

ICID Publications in Persian

The Iranian National Committee of ICID (IRNCID) has been very active in publishing/ translating publications in ‘Persian’ language. Their recent efforts in bringing out the following publications in ‘Persian’ are noteworthy:

(1) Convention Irrigation System in NAEN CITY;
Taking lag times and various water losses during releases from rivers and canal networks, WAS calculates water data and information. Among its many capabilities, WAS is a decision support program for use by irrigation boards on irrigation schemes for 9 to 15 years.

Over the last 20 years, Dr. Benade has (a) participated in four research projects to develop and test WAS, (b) implemented the practical application of WAS on irrigation schemes, (c) provided service to managers on irrigation schemes for installation and, (d) designed courses and established a website (www.nbsystems.co.za/was.php) to improve the service for decision support. Largely as a result of Dr. Benade’s efforts, WAS is now being implemented on irrigation schemes with a total area of 142,843 ha, which is approximately 27.5% of the irrigated area of South Africa serviced by WUA’s (formerly government water schemes and irrigation board schemes). Field measurements have shown that losses are reduced by 10 to 20% through improved water releases in canals and rivers. With an average water allocation of 8,147 m³ per ha and average losses of 15%, this amounts to an average water saving of between 20.5 to 41 million m³ water per year. WAS has been operational on five major irrigation schemes for 9 to 15 years.

Dr. Benade has been awarded for his contribution to the Water Administration System (WAS) which has increased the productivity of water in irrigated agriculture in South Africa. WAS is a decision support program for use by water user associations on irrigation schemes in managing their water accounts and their water supply to clients through rivers, canal networks and pipelines. It replaces the old manually operated water distribution system commonly used in government irrigation schemes.

WAS uses five modules - the Administration module, the Water Request module, the Water Release module, the Crop Water Use model and the Water Accounts module. The different modules are fully integrated, which makes it possible to cross-reference relevant data and information. Among its many capabilities, WAS calculates water releases from rivers and canal networks, taking lag times and various water losses into account. All data is archived on a single database, enabling rapid accessing. Enhanced financial control and the minimization of water losses through an improved water distribution system are the important features. By enabling water supply of the required volume at the requested time, implementation of WAS also promotes efficient water use at the farm level.

In 1996, Dr Kang in collaboration with Prof. Zhang Jianhua developed a new irrigation method called Controlled Alternate Partial Root-zone Irrigation (CAPRI) that can improve crop water use efficiency without significant yield reduction. The use of CAPRI resulted in up to 50% reduction in the amount of irrigation required while maintaining high grain yield.

Dr. Benade is a Civil Engineer and Programmer with 20 years of experience. He has specialized in the development and implementation of water distribution systems in irrigation canals and river systems.

Winners of WatSave Awards 2006

Innovative Water Management Award

Dr. Nico Benadé, South Africa

Dr. Nico Benadé has been awarded for his contribution to the Water Administration System (WAS) which has increased the productivity of water in irrigated agriculture in South Africa. WAS is a decision support program for use by water user associations on irrigation schemes in managing their water accounts and their water supply to clients through rivers, canal networks and pipelines. It replaces the old manually operated water distribution system commonly used in government irrigation schemes.

WAS uses five modules - the Administration module, the Water Request module, the Water Release module, the Crop Water Use model and the Water Accounts module. The different modules are fully integrated, which makes it possible to cross-reference relevant data and information. Among its many capabilities, WAS calculates water releases from rivers and canal networks, taking lag times and various water losses into account. All data is archived on a single database, enabling rapid accessing. Enhanced financial control and the minimization of water losses through an improved water distribution system are the important features. By enabling water supply of the required volume at the requested time, implementation of WAS also promotes efficient water use at the farm level.

Over the last 20 years, Dr. Benade has (a) participated in four research projects to develop and test WAS, (b) implemented the practical application of WAS on irrigation schemes, (c) provided service to managers on irrigation schemes for installation and, (d) designed courses and established a website (www.nbsystems.co.za/was.php) to improve the service for decision support. Largely as a result of Dr. Benade’s efforts, WAS is now being implemented on irrigation schemes with a total area of 142,843 ha, which is approximately 27.5% of the irrigated area of South Africa serviced by WUA’s (formerly government water schemes and irrigation board schemes). Field measurements have shown that losses are reduced by 10 to 20% through improved water releases in canals and rivers. With an average water allocation of 8,147 m³ per ha and average losses of 15%, this amounts to an average water saving of between 20.5 to 41 million m³ water per year. WAS has been operational on five major irrigation schemes for 9 to 15 years.

Technology Award

Prof. Kang Shaozhong, China

Prof. Kang Shaozhong (b. November 1962) is presently Director and Professor at Center for Agricultural Water Research at China Agricultural University. Prof. Kang Shaozhong has studied and demonstrated systematically Regulated Deficit Irrigation (RUI) technology for field crops in Northwest China. RUI was applied to 6,667 hectares in Shanxi Province, where irrigation water use was reduced by 34.1% while crop yield increased by 19.3% compared with conventional irrigation method. He has co-authored a book of “Principle and Practice of Deficit Irrigation” with Prof. Chen Yaxin.

Young Professionals Award

Dr. Neelam Patel, India

Dr. Patel (b. February 1972) is a Senior Scientist at Precision Farming Development Centre of Water Technology Centre at Indian Agricultural Research Institute in New Delhi, India. She is a dedicated researcher and has contributed significantly in the field of micro irrigation during the last decade. Dr. Patel was also involved in post-graduate teaching and extension activities.
Dr. Neelam Patel has received the award for her research work on micro irrigation and also for promoting the use of this technology among farmers. The focus of Dr. Patel’s research has been in the estimation of water requirements, modifications of crop planting geometry and the use of mulches in drip irrigated fields. She has also worked on the hardware and software aspects to reduce cost while increasing water savings. From her work, micro irrigation system was found to result in 30 to 70 % water savings along with 10 to 60% increases in yields as compared to conventional methods of irrigation.

To promote greater use of micro irrigation, Dr. Patel has focused on capacity building of farmers through various training programmes, field demonstrations and the development of suitable literature. To date, 60 training programmes benefitting some 1,800 farmers have been conducted on the use of micro irrigation, Dr. Patel has focused on capacity building of farmers through irrigation. To promote greater use of micro irrigation, Dr. Patel has focused on capacity building of farmers through irrigation. The emphasis is on the economic aspects of irrigation, including technical aspects of hardware and software, maintenance and troubleshooting in micro irrigation systems. Such co-operation enhances the efforts between WMO and ICID in working together on activities relating to flood and risk management.

Ms. Annette Kimmich, Open University Geological Society, Switzerland

Ms. Annette Kimmich visited Central Office on 19 October 2006. Mr. K.N. Sharma, Secretary, ICID welcomed her and Mr. N.K. Choudhary (Educational Consultant, India) and Mr. L.P. Chaudhari (Educational Consultant, India) and Mr. L.P. Chaudhari introduced ICID to visitors by way of Powerpoint (PP) presentation followed by discussions. Ms. Kimmich was impressed with the ICID activities and its global network. She promised to get in touch with the Swiss National Committee on Irrigation and Drainage and explore possibilities for further cooperation.

“Water for Food…and Bioenergy”

Vice President Hon. Henri Tardieu (France), Theme Leader, ICID Strategy Theme Basin, coined the phrase “Water for Food... and Bioenergy” in his theme presentation on 14 September 2006 during 57th IEC meeting at Kuala Lumpur, Malaysia.

He said ICID was quite familiar with the global food balance and impact of the need of the growing population on irrigated agriculture. ICID will have to rapidly change to introduce the new role of agriculture for bioenergy and biomaterials. He informed that Brazil used 50% of its sugarcane for ethanol; USA covered 3% of its fuel consumption by 14% of its maize production and planned to double it. EU was engaged in covering 10% of its fuel consumption by biofuel.

The immediate consequence would be the increase in global prices and a significant impact on farmers revenue. It probably may renew interest of policymakers in agriculture, he said. For ICID, the challenge may be to promote a better conjunctive use of rain and complementary irrigation.

Please write to ICID Central Office for full text of his presentation. Mr. Tardieu can also be contacted at <h.tardieu@acag.fr>.  

Least Developed Countries

Since 1971, the United Nations has designated “Least Developed Countries” (LDCs) a category of States that are deemed highly disadvantaged in their development process (many of them for geographical reasons), and facing the risk of failing to come out of poverty more than other countries. As such, the LDCs are considered to be in need of the highest degree of attention on the part of the international community.

The following criteria were used in the 2006 review of the list of LDCs undertaken by the UN Economic and Social Council:

(a) A long-income criterion, based on the gross national income (GNI) per capita (a 3-year average, 2002-2004), with thresholds of $750 for cases of addition to the list, and $900 for cases of graduation from LDC status;

(b) A human assets criterion, involving a composite index (the Human Assets Index) based on indicators of (i) nutrition (percentage of the population...
Call for Papers

Special Session: Least Developed Countries in Asia: Development with Partnership—Avenues for Cooperation, May 2007, Tehran, Iran

During the 53rd International Executive Council (IEC) meetings in Montreal, Canada (2002), it was resolved to take a pro-active stance and create a “Knowledge Base” to understand the problems faced by the LDCs, so that it could identify areas, where ICID could assist these countries. To further identify the possible areas of assistance, a Task Force for identifying Priority Issues for Least Developed Countries in Asia (TF-LDCAS) was set up on 31 March 2003. The TF-LDCAS proposed its second Special Session to be held during 4th Asian Regional Conference in May 2007 at Tehran, Iran. Authors are invited to submit papers related to the following theme and areas:

Theme: Affordable technology for the following theme and areas:

- invited to submit papers related to the
- held during 4th Asian Regional Conference in May 2007 at Tehran, Iran. Authors are invited to submit papers related to

Exemplary Areas:

- Water resources development, sharing and management, including ways to improve the efficiency and equity of water delivery by equipping large systems with secondary “in-system” storage facilities that serve as regulating/buffer ponds to settle the temporal and volumetric gaps between the water supply from the head works and the water demands of the farmers;
- Participatory irrigation management & the roles of governments;
- Capacity building / technology transfer.

Deadlines:

- Nomination by National Committees or affiliated organizations of the names of authors and the titles of proposed papers (30 November 2006);
- Submission of Abstracts (31 December 2006);
- Notification of acceptance of abstracts (15 January 2007);
- Submission of full text (31 March 2007).

Contact: LDCsAS Secretariat, Japanese Association of ICID, E-mail icidssjp@zat.atl.ne.jp and Tel.: +81-3-3502-15760

New Additions to ICID’s TDS Database (October 2006)

The additions during the month to the TDS Database are:

- **Article Section—108 additions (Articles / Papers)**

**Book Section—21 additions:** till date 30633 additions have been made to TDS database. The Text Delivery Service (TDS) has received four 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.

dsi.gov.tr and Website: <www.dsi.gov.tr>

WaterMalaysia, 14-16 May 2007, Kuala Lumpur, Malaysia. For more information, please contact: Melissa Wu or Kelly Liu at <Melissa@protemp.com.my> or <kellyliu@protemp.com.my>.


World Congress on Advancing Sustainable Hydropower, 29-31 May 2007 at Antalya, Turkey. For more information, please contact: Mr. Pravin Karri (E-mail: iha@hydropower.org, pk@hydropower.org).


The Second International Symposium on Soil Water Measurement Using Capacitance, Impedance and Time Domain Transmission, 28 October – 02 November 2007, Beltsville, Maryland, USA. For more information, please contact: Dr. Loan Caton Paltineanu at <cpaltin@msn.com> and visit their website at <www.paltin.com>.

Events


International Congress River Basin Management, 22-24 March 2007, Antalya, Turkey. For more information, please contact: DSI Genel Mudurlugu, Inonu Bulvari, Yucetepe, Turkey. E-mail <riverbasinmanagement@dsm.gov.tr> and Website: <www.dsi.gov.tr>

Managing Water for Sustainable Agriculture • Water for Food and Rural Development

INTERNATIONAL COMMISSION ON IRRIGATION AND DRAINAGE
48 Nyaya Marg, Chanakyapuri, New Delhi 110021, India, Tel: 91-11-2611 5679, 91-11-2611 6837, 91-11-2467 9532
Fax: 91-11-2611 5962; E-Mail: icid@icid.org; Website: http://www.icid.org

Editor: Dr. Vijay K. Labhsetwar, Director - II; DTP: Keshav Dev Tanwar, Central Office