Dear Colleagues,

The World Bank, the International Commission on Irrigation & Drainage (ICID), and the 2030 Water Resources Group (WRG) jointly organized a global webinar on ‘The Impact and Recovery from COVID-19 in the Irrigation and Drainage Sector’ on 18th May 2020. The webinar, chaired by ICID President Dr. Felix Reinders, and addressed by the professionals from all the continents of the world, also witnessed participants from multifarious sectors- irrigation practitioners, government officials, service providers, corporate, farmers and others from around the world to share their experiences in addressing the numerous problems posed by COVID-19 and gain from each other’s experiences.

The outbreak of the COVID-19 pandemic has impacted one and all. The irrigation sector is no different. To get the experts’ perspective of the emerging situation amidst rumors of an impending water crisis, Agrovision Foundation, and Agro Spectrum organized a webinar on the “Impact of COVID-19 on Irrigated Agriculture and Road Ahead” on 15th May 2020. Representing ICID, I was one of the lead panelists for the webinar.

In the wake of the coronavirus pandemic outbreak across the world, the Water Digest, a knowledge communication agency, started a humble initiative to expand the knowledge of water professionals through awareness and capacity building programs. Amid the lockdown, they are encouraging skill seekers to acquire knowledge and utilize their time effectively through Water Digest’s learning programs through a series of webinars. To raise awareness and encourage action around water and its related issues, a webinar was organized on “Irrigated Agriculture in India- Impact of COVID 19” on 7th May 2020. I shared my experiences on coping with the water management.

As part of ICID webinars, ICID President Honorary Prof. em. Bart Schultz spoke on the ‘Role of Safety Standards and Land Subsidence in Sustainable Development and Management of Flood Prone Areas’ on Tuesday, 19 May 2020. Prof. Schultz is one of the lead panelists for the webinar.

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COVID-19 lockdown has resulted in disruption of irrigation and drainage services, delays in infrastructural maintenance due to labour absenteeism, and disturbed supply chain for inputs and equipment, which adversely affected the agricultural production. The irrigation and drainage sectors are also headed towards a fiscal deficit due to cuts in budgetary allocations. This creates an upcoming challenge concerning service delivery, financial constraints, and implementation as well as operation and maintenance. Ensuring smooth irrigation and drainage services while developing a sustainable resilient economic structure are the two urgent needs of the agricultural sector. While discussing the immediate priorities of the irrigation fraternity amid-COVID 19, the webinar emphasised on required actionable decisions from the authorities.

Briefly, the webinar discussed the following key topics: (i) How do we support service providers for critical service delivery and the vulnerable in

Best Wishes,

Ashwin B. Pandya
Secretary General, ICID
 accesses irrigation services? (2) How do we safeguard proper management of ongoing Irrigation and Drainage (I&D) works and maintenance of existing ones? (3) How do we envision the economic reopening post-COVID, and what are the immediate steps to take? (4) Which new ways of work have we discovered that will improve service provision post-COVID?

Throughout his keynote address, ICID President, Er. Felix Reinders, emphasized two points, food production and cooperation among all stakeholders in the irrigation and drainage sector. He expressed, irrigated agriculture is providing almost 40% of the world’s food. So, it is important to realize COVID-19 is impacting not only the agricultural sector but also the irrigation sector. Substantiating his point on the challenges we are facing on the food front, he said nearly 1 billion people suffer from hunger, and 2 billion people cannot afford healthy meals. We need to increase our food production by 42% by 2030 and by 70% by 2050 to cope up with the population growth and corresponding demand for food. For the success of this task, joint efforts of three important ground players are essential. They are researchers, companies, and farmers. He drew the attention of the participants towards the changing food scenario across the world. “Beyond COVID-19 lies turbulence, change, and opportunities,” said Er. Reinders. So countries must invest in innovative solutions. He concluded by professing on how today, more than ever, it is pertinent for all of us to stand together. “Collaboration is needed amongst governments, product sector, across societies and organizations. We have to foster a spirit of cooperation to make a difference.”

**Impact of COVID 19 on Irrigated Agriculture and Road Ahead**

The outbreak of the COVID-19 pandemic has impacted one and all. The irrigation sector is no different. To get the experts’ perspective of the emerging situation amidst rumours of an impending water crisis, the Agrovision Foundation, and Agro Spectrum organized a webinar on the “Impact of COVID-19 on Irrigated Agriculture and Road Ahead” on 15th May 2020. ICID Secretary-General, Er. A.B. Pandya was one of the panelists for the webinar. The other panelists were: Mr. Avinash Surve, Executive Director of Vidharbha Irrigation Development Corporation (VIDC); Mr. Ganjendra Varma, Director-General – Irrigation Association of India; Mr. Kaushal Jaiswal, Managing Director, Rivel’s Irrigation India, and Mr. B.P. Chavan, CEO, Business Development – Kothari Agritech Pvt. Ltd. The webinar was hosted by Dr. C.D. Mayee, Chairman, Advisory Council, Agrovision; and, Mr. Ravi Boratkar, President – Agrovision Foundation and Publisher – Agro Spectrum. Ms. Vibha Bhatia moderated the webinar.

Speaking on the impact of COVID-19, SG Pandya explained that most parts of the tropical world, completed the first yearly irrigation cycle and the harvesting season was just beginning at the initial outbreak of COVID-19. However, the harvest of crops was delayed due to the limited mobility of the farm force given the movement restrictions imposed.

The mass exodus of farm labour to their native villages in India following the lockdown has created a scarcity of farm labour for sowing Kharif (monsoon) crops. The delay in harvesting the crop has already resulted in the reduction of the time gap between the harvest of crops and the sowing of Kharif crops. This will affect the water availability for the sowing of Kharif crops as it has overshot the primary hydrological cycle with which the Kharif sowing process is synchronized. He pointed out the existing inadequate carryover storage capacity for water to shift the life-cycle, even a small amount away from the primary hydrological cycle, would have taken care of this delay. Non-availability of transport facilities due to COVID-19 has further aggravated the situation as the farm produce could not be taken to the market on time.

All these developments resulted in a complex web of economic issues for individual farmers as they periodically invest their earnings from the harvest of crops for the sowing process of the Kharif crops. Movement restriction has also affected the operation and maintenance of irrigation and drainage facilities. However, while concluding, he mentioned that micro-irrigation systems may emerge as the current best option to tackle the issues related to water management arising out of this pandemic.
In the wake of the coronavirus pandemic outbreak across the world, Water Digest started a humble initiative to expand the knowledge of water professionals through awareness and capacity building programmes. Amid the lockdown, they are encouraging skill seekers to acquire knowledge and utilise their time effectively through Water Digest’s learning programmes through a series of webinars.

To raise awareness and encourage action around water and its related issues, a webinar was organized on “Irrigated Agriculture in India - Impact of COVID-19” on 7th May 2020. Secretary General ICID, Er. Ashwin B. Pandya gave the webinar and from his experience shared valuable coping mechanism strategies for individuals, industries, corporates and communities to manage the water issues efficiently.

While setting India specific context, he discussed how the lack of manpower for harvesting, storage and transportation operations will create stress upon income inflows and crop planning for the next season. Even though India had a good monsoon in 2019 and had carried Rabi irrigation successfully in fact with record-breaking yields, the current COVID disrupted crop cycle from March-July period will increase the water utilization from the reservoirs. Micro-Irrigation techniques and Post-harvesting marketing strategies are crucial for managing yields in irrigated agriculture and resilience structure could be built by having a wider basket of crops for accommodating vagaries of nature. He explained that even though the pandemic’s primary impact is economic, it has serious implications for water management for the future. He also stressed upon the urgent need for the country to build water storage facilities, capturing the water in time and accommodating coming monsoon inflows.

As part of ICID webinars, ICID President Hon. Prof. em. Bart Schultz spoke on the ‘Role of Safety Standards and Land Subsidence in Sustainable Development and Management of Flood Prone Areas’ on Tuesday, 19 May 2020. Prof. Schultz is Land and Water Development IHE-Delft, Former Top Advisor Rijkswaterstaat, The Netherlands. The Webinar was hosted by the Central Office of ICID in New Delhi, India.

Despite worldwide concern for the impacts of climate change resulting in extreme rainfalls, and increased river and sea levels, 80 to 90% urbanization takes place in flood-prone areas, says Prof. Schultz. Many of these areas are located in coastal and deltaic regions. According to him, the development and management of flood-prone areas need an integrated approach taking into account various relevant aspects. These include design standards for drainage and flood protection, land subsidence, risk of flooding, land subsidence and oxidation of topsoil, how they may impact the conditions and what measures can be considered for sustainable development and management.

Drainage and flood protection measures are of paramount importance for land subsidence in flood-prone areas. Structural measures for this purpose may include artificial mounts, dams, dykes, bypasses, polders, and land-use zoning. Non-structural measures could be in the form of flood forecasting, flood warning, and evacuation. Design standards for drainage and flood protection need to be followed.

The impact of climate change includes the rise in the mean sea level, change in river regimes and an increase in the peak discharge of rivers, an increase in annual rainfall and others. Prof. Schultz notes that land subsidence dominates impacts of climate change and levels of safety are generally far below economic optimum. Countries need integrated flood management plans at river basin level for short, medium and long term. He concludes by saying that countries need short-term, medium-term and long-term integrated flood management plans at the river basin level.
Important Announcements

Date for Nomination of Office Bearers Extended

Nominations from National Committees are invited following the relevant Articles of the Constitution and By-laws of International Commission for Irrigation and Drainage (ICID) for the vacant positions of Office Bearers (one President and three Vice Presidents) in ICID Central Office. The last date for receipt of nominations has been extended up to 07 August 2020. Nominations from National Committees, if any, must be received by or before the due date of 07 August 2020. Nominations not following the relevant Articles of the Constitution and By-laws, or received after the due date are liable to be ignored. Please refer to ICID Constitution Articles 7.2 and ICID By-laws 2.2 to 2.6, related to the Election of President and Vice-Presidents. The National Committees intending to submit a nomination may please ensure that the arrears of their subscription are cleared before filing their nominations. Please use the following link to access the ICID Constitution and By-laws: [https://www.icid.org/icid_bylaws.html](https://www.icid.org/icid_bylaws.html)

ICID Annual Report 2019-20: Call for Updated Information from NCs and DMs

The International Commission on Irrigation and Drainage (ICID) Central Office is in the process of compiling the ICID Annual Report for 2019-20. The ICID Central Office has sent out emails to National Committees and Direct Members requesting for information for inclusion in the Annual Report.

The Chairs of National Committees are requested to kindly provide detailed information about the events, meetings held and any other material relevant to the national committee for the year 2019-2020 which could be included in the Annual Report. Suitable pictures and/or audio-video media may be included with the submission.

National Committees are requested to update the data relating to the agricultural scenario of their country with the latest and accurate information on the total arable area, total irrigated and drained area and areas under sprinkler and micro-irrigation.

We request you to kindly review the existing data from 2018-2019 Annual Report from the link [https://www.icid.org/ar_2018.pdf](https://www.icid.org/ar_2018.pdf) in case the information needs to be updated. The latest information may be mailed to ICID Central Office for updating the same.

Similarly, the Direct Members are requested to provide detailed information about the events conducted, meetings held and any other relevant material related to their professional activities during the year 2019-2020.

71st International Executive Council (IEC)

The 71st International Executive Council (IEC) will be held along with the 5th African Regional Conference (ARC) and the Young Professional’s Training Program (YP-TP) in 2020. With consultation of the Moroccan National Committee (ANAFIDE), it will be held tentatively in the first week of December 2020. Confirmed dates will be released as and when finalized. The Young Professional’s Training Program (YP-TP) will also be organized during the 5th African Regional Conference.

10th International Micro Irrigation Conference: Dates will be announced later

10th International Micro Irrigation Conference (10MIC) will be held in Agadir, Morocco, will be a standalone event in 2021. Dates will be announced later. Micro-irrigation (drip/ trickle or localized irrigation) was introduced on a commercial scale in the world sometime in the 1970s. Micro-irrigation is the most efficient method of water application to crops. However, owing to the technicalities involved in its design, operation, and maintenance, the pace of its adoption was rather slow. To promote the use of micro-irrigation on a large-scale, the irrigation community worldwide, especially in developed countries, launched the International Micro Irrigation Congress in the year 1971. Subsequently, ICID volunteered to organize the event beginning with the 5th International Micro Irrigation Congress held in South Africa in 2000 to create awareness among its members about the latest developments in micro-irrigation technology to enhance crop production.

International Workshops by ICID Working Groups Rescheduled

The international workshops by the four working groups of International Commission on Irrigation and Drainage (ICID) viz., the Working Group on Modernization and Revitalization of Irrigation Schemes (WG-M&R); the Working Group on Institutional and Organizational Aspects of Irrigation/Drainage System Management (WG-IOA); the Working Group on Managing Water Scarcity under Conflicting Demands (WG-MWSCD); and, the Working Group on Water and Crops (WG-W&C) initially planned for Sydney, Australia in September 2020 will now be organized during the 5th African Regional Council meeting in Morocco. The final dates will be announced in consultation with Association Nationale des Améliorations Foncières de l’Irrigation, du Drainage et de l’Environnement, better known as the Moroccan National Committee (ANAFAIDE) once COVID-19 situation is under control. The dates for these events will provide sufficient time difference (about six months) between the 24th Congress at Sydney and the 10th IMIC at Agadir to ensure better participation.

The aspiring participants may kindly submit their abstract to the workshop coordinator for the above international workshops at Marrakesh, Morocco (sometime later during 2020), with a copy to ICID Central Office (mailto:icid@icid.org)

- **Modernizing Irrigation Services**
  - WG-M&R (Chairman). Mail to: ianwmakin@gmail.com

- **Public-Private-Partnership (PPPs) in Irrigation and Drainage Operation and Maintenance toward sustainable Irrigated Agricultural water management**
  - WG-IOA (Chairman). Mail to: hafedgany@yahoo.com

- **Managing, on the Regional, State, or Local Level, Water Scarcity Resulting from Conflicting Demands**
  - WG-MWSCD (Chairman). Mail to: frankdimick@gmail.com

- **The Water-Energy-Food-Nexus: Implementation and Examples of Application**
  - WG-Water & CROP (Chairman). Mail to: rag@ceh.ac.uk
Submission of Abstracts and Full Papers for 24th ICID Congress, Symposium and Special Sessions

IAL/IACID/ICID much appreciate the time and efforts of the aspiring participants in submitting their abstracts for the ICID Congress and associated events and Irrigation Australia. All abstracts submitted to date stand automatically included for consideration.

We are fortunate to have your wholehearted participation with nearly 300 abstracts. Some abstracts have been approved for the submission of full-length papers. We assure you that the submissions will remain valid throughout the period, and you may continue the preparation of your full-length papers and submit them on the portal for further review and inclusion in the proceedings of the Congress. Since the event is delayed, we have extended the dates for the submission of full-length papers substantially. Please visit the portal for the latest deadlines. However, we request you to not wait until the deadline and continue preparing for the full-length paper and submit the same online.

In the meantime, should you wish to withdraw or edit your submission, you may do so at the portal https://icidevents.org/techmanagement for 24th Congress, Symposium and Special Sessions.

Some of our friends who registered on the portal have not proposed abstracts or papers for the Congress. This postponement offers a golden opportunity to do so now and catch up with your other friends. The window for the submission of the new abstracts stands extended to 30 November 2020. Please note the important deadlines:

- Submission of 'Extended Abstracts' (500-600 words): 30 November 2020
- Notification of Acceptance of Extended Abstracts: 31 December 2020
- Submission of Full Papers: 15 February 2021
- Notification to Authors (oral/poster/presentation): 15 April 2021

In the meantime, should you wish to withdraw or edit your submission, you may do so at the portal https://icidevents.org/techmanagement for 24th Congress, Symposium and Special Sessions.

Extension of deadline for submitting nominations of ICID WatSave Awards and Recognition of World Heritage Irrigation Structures (WHIS) and Relaxation in Mode of Application

The postponement and rescheduling of the 71st IEC due to the COVID-19

Uzbekistan Developing Concept of Water Resources Development

Uzbekistan is currently developing a draft concept for the development of water management until 2030. This process is supported by international grants from the Asian Development Bank, the World Bank and the Swiss Agency for development and cooperation, as well as experts from the Australian company "Aither", which specializes in developing directions for the development of the water sector. The draft concept provides for:

- Wide Implementation of water-saving technologies; Extensive use of automation and information and communication technologies in the field;
- Updating and Reconstructing irrigation networks to increase the efficiency coefficient from 0.63 to 0.73 and thereby increasing the water use efficiency in more than 1 million ha area
- Annual reduction of saline areas by 1 % due to construction and reconstruction, repair and restoration works at reclamation facilities, as well as re-use of 298.5 thousand hectares;
- By 2030, electricity consumption is expected to decrease from 8.0 billion kW.h to 6.0 billion kW.h due to the reconstruction and modernization of pumping units and engines;
- Development of market economy principles, as well as the transfer of 50 water management facilities to the private sector in the framework of Public-Private Partnership.

News from National Committee

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ICID Watsave Awards and WHIS Recognition at the ICID Central Office in New Delhi, India, is 31 July 2020.

It was decided to switch to online submission of nomination forms for WatSave Awards and WHIS Recognition beginning this year. Only online submission of nomination forms was to be accepted from this year. We continue to encourage online submission of nomination forms. However, if there is any difficulty in submitting nominations forms online, the applicant may contact us at icid@icid.org.

The nominations will also be accepted via e-mail (icid@icid.org) for this year keeping in view the technical limitations imposed by COVID-19.

For details, please visit, WatSave Awards: https://www.icid.org/awards_ws.html, WHIS Recognition: http://www.icid.org/awards_icid.html

For queries, please contact Dr. Sahdev Singh, Director (Knowledge Management) at icid@icid.org

Japanese National Committee Welcomes New Members

New Chairman: The International Commission on Irrigation and Drainage is pleased to welcome Dr. Tsuguhiro Watanabe, who has taken over as the new Chairman of the Japanese National Committee of the ICID (JNCID), from the outgoing Chairman Dr. Yohei Sato. Dr. Watanable is the Project Professor of Kumamoto University, Professor Emeritus of Kyoto University, and Chair of the Japanese National Committee for ICID.

New Secretary General: Mr. Kenji MIYAGAWA, Overseas Land Improvement Cooperation Office, Design Division, Rural Infrastructure Department Rural Development Bureau, Ministry of Agriculture, Forestry and Fisheries 1-2-1, Kasumigaseki, Chiyoda-Ku, Tokyo 100-8950 has taken over as JNCID’s new Secretary General. His coordinates are E-mail: jncid@maff.go.jp, Website: http://www.maff.go.jp/e/nousin/kaigai/icid/index.html

Retirement of Dr. Yamaoka: Dr. Yamaoka, who has contributed to ICID activities in different capacities over the years such as the Vice-Chair of Working Group on Institutional and Organizational Aspects of Irrigation/ Drainage System Management (WG-IOA), has retired from JNCID.

Young Professional: Dr. Kimura, Lecturer at the Department of Environmental Management, Faculty of Agriculture, Kindai University has joined JNCID as a Young Professional from the Irrigation and Drainage Engineering sector including Hydraulics and Hydrology, and is scheduled to join IYPeF and other working groups.

New members from JNICID, Dr. Keigo NODA, Assistant Professor, Water Resource and Environment lab, Faculty of Applied Biological Sciences, Gifu University and Mr. Taku MORI, President, NTC INTERNATIONAL Co. Ltd., Japan will be joining the Working Group on Institutional and Organizational Aspects of Irrigation/ Drainage System Management (WG-IOA).

We look forward towards their contribution based on their knowledge and experience of autonomous and cooperated water management systems by farmers.

Korean National Committee on Irrigation and Drainage welcomes New Members

Vice-Chairman: Mr. RYU Jeon Yong has taken over as the Vice Chairman of Korean National Committee on Irrigation and Drainage (KCID)/ Director General, Korea Rural Community Corporation (KRC) Rural Research InstituteKorea Rural Community Corporation. His coordinates are: Email: kciddkr@gmail.com, Website: http://www.eckcid.org

Secretary General: Ms. LEE Nani has taken over as the new Secretary General, Korean National Committee on Irrigation and Drainage (KCID)/Rural Research Institute Korea Rural Community Corporation (KRC). Her coordinates are: kciddkr@gmail.com, Website: http://www.ekcid.org

Change of e-mail address: Finnish National Committee on Irrigation and Drainage (FINCID)

The new e-mail ID for the Chairman of the FINCID is harri.koivusalo@aalto.fi. All are requested to use this e-mail ID to contact FINCID from now on.
The ICID journal, Irrigation and Drainage is available online FREE via Wiley online library for all ICID office bearers, work body members and subscribers.

Special Issue of 'Irrigation and Drainage' Released

The Editor-in-Chief of the ICID’s Journal, ‘Irrigation and Drainage,’ Dr. Bart Schultz has announced that the online version of the Special Issue 69.2 of ICID’s Journal ‘Irrigation and Drainage’ has been released. The special issue contains invited papers on the ICID Vision 2030 and Action Plan 2017-2021. The release of the printed version of the journal is delayed due to difficulties posed by COVID-19.

As a new initiative, Prof. Bart Schultz has announced the publication of the 1st virtual issue of Irrigation and Drainage by Wiley. The virtual issues will group papers on a specific topic that have already been published in the regular or special issues of Irrigation and Drainage since 2000. This initiative is expected to help the readers, researchers and practitioners to find all the material relating to their field of interest in one place.

Virtual Issues

Now available online Virtual Issue 1, published May 2020. Click for direct access to the page with the papers of this issue of Irrigation and Drainage on http://onlinelibrary.wiley.com/journal/10.1002/(ISSN)1531-0361.

The FAO Land and Water Division has released the Policy Brief on ‘Integrated Agriculture Water Management and Health’. The growing pressures on water supplies and overuse of existing surface water and groundwater resources, coupled with the threat of zoonotic diseases such as COVID-19 global pandemic, emphasizes the need to explore alternative approaches to water management.

The Policy Brief reviews ongoing challenges and offers recommendations on integrated water resources management approach that embraces the value of water in all its forms and recognizes the intrinsic role of water in protecting humans, animals, and the health of the ecosystem. This multi-sectoral approach to integrated water resources management under the ‘One Water—One Health’ concept of water acknowledges that decisions regarding land and water use have health implications. Less-resilient ecosystems, shifts in patterns of disease emergence and spreading, manifest themselves when we fail to recognize this relationship.

Global Water Partnership Announces Water ChangeMaker Awards

The Global Water Partnership (GWP) has announced the Water ChangeMaker Awards in collaboration with over 25 partner organizations to honour those who make smart decisions on how we use and safeguard our water and how we protect ourselves from water-related hazards like floods and droughts in the face of the climate crisis. The GWP has enlisted the cooperation of the International Commission on Irrigation and Drainage (ICID) for dissemination and participation in the nomination process for this award. GWA has requested all partner organizations to help identify the most deserving candidates for this award. The last date for submission of nomination is 07 June 2020.

The details of these awards are available at www.waterchangemakers.org. People can also contact GWP by e-mail at waterchangemakers@gwp.org. For submission please visit https://www.gwp.org/en/waterchangemakers/submission-form/.
World Irrigation Forum 3: Supporting Events

Supporting events are an integral part of WF3 forum which brings to the forefront often less discussed thematic areas and gives the direction towards future discourses. A total of 15 supporting-events were conducted during the course of the WF3. A very brief summary of first five discussions is given below.

**Improving Water Productivity in the Age of Big Data**

This event organized by the Daugherty Water for Food Global Institute, Nebraska, USA, emphasized on the significance of big data for improving the water productivity, especially in agriculture. Considering the major use of freshwater in irrigation, agricultural sector is bound to face increasing competition from other sectors because of limited water resources, a problem that might deteriorate given the predicted climate extremes. The panel studied the use of regional and field-level data such as crop yield, applied irrigation water, soil water content, crop canopy parameters, irrigation system feedback as well as remote sensing-based approaches, for estimating crop water productivity, benchmarking and monitoring improvements.

**Enhancing Biodiversity with Fish-friendly Irrigation in Asia**

This session organized by the Food and Agriculture Organization of the United Nations (FAO), stressed the need to adopt a more holistic approach to the use of land and water resources in conventional irrigation management. The strong, historical connection between fish production (capture fisheries and aquaculture) and irrigation systems are being overlooked in the name of modern irrigation development, with an overemphasis on water delivery, at the cost of ecosystem services. All elements of an irrigation system, from upstream dam storage to downstream drainage areas, offer opportunities for increasing fish production at no additional cost to the main irrigation system.

**Tackling Water Scarcity in Asian Agriculture**

Organized by the FAO, this session addressed the need to tackle water scarcity in Asian agriculture. It is projected that by 2050, Asia will need an additional food supply of 60% to feed the estimated increase in the population by 1.5 million. Many resource management challenges of Asia are similar to that of Near East North Africa (NENA) region. These include high dependency on groundwater, unregulated wells, subsidized pumping costs, deteriorating water quality and increasing demand for food. An interregional approach in planning or policy interventions will help regions to exchange knowledge and collaborate on the development of state-of-the-art management approaches.

**Farmers can substantially deploy Water Productivity Potential with Effective Technical-Institutional Environment**

Organized by the FAO, it focused on enhancing the strength of technical-institutional aspects for unlocking the water productivity potential. The session discussed innovative farmers’ led solutions to improve crop water productivity and efficiency of small-scale irrigation. The event shared lessons learned from the results of implemented projects and enabled interaction among practitioners, policy-makers and various stakeholders for the uptake of these results, their wider application, and inclusion in sectorial policies.

**Dams and River Basin Management**

The International Commission on Large Dams (ICOLD) organized this panel discussion, focusing on the role of dams in irrigation and multipurpose project potential to foster economic growth and food security. The discussion further addressed the role of dams in providing the volumes of water and assuring irrigation supply in the prevailing scenario of water scarcity and droughts, climate change threatening the viability of agricultural subsistence of existing and development of future irrigated lands, considering the interests of all the stakeholders at basin level. It was opined that in such multipurpose projects, financial opportunities for different users are a necessity. Short, medium and long-term decision-making strategies must be based on a deep knowledge of natural conditions and socio-economic drivers in the basin.