



ICID•CIID

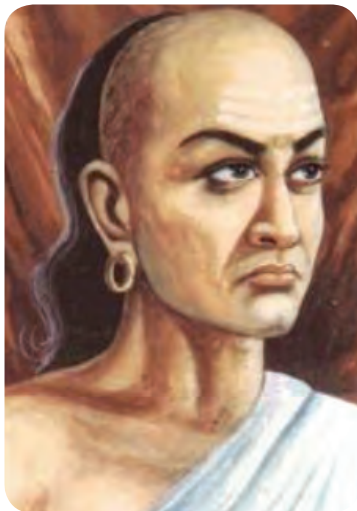
*Role of*  
**Government  
of  
India**  
*in establishing*  
**International  
Commission on  
Irrigation and  
Drainage**

“ Water management is also vital for the agriculture sector to flourish. ”

–Prime Minister Narendra Modi



“



Agriculture cannot be made solely dependent on rains as it amounts to gambling with the nature.

– Kautilya’s Arthshastra, 371 BC

”

January 2019

Compiled by: Madhu Mohanan, Communication Officer

# ABOUT ICID



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## International Commission on Irrigation and Drainage (ICID)

ICID, established in 1950, with headquarters in New Delhi is a leading scientific, technical and not-for-profit International Organisation. Through its network of professionals spread across 80 countries, ICID has facilitated sharing of experiences and transfer of water management technology for almost seven decades. ICID promotes policies and programs to enhance sustainable development of irrigated agriculture through a comprehensive water management framework.

ICID is a knowledge sharing platform dedicated to issues related to the entire spectrum of agriculture water management practices ranging from rain-fed agriculture to supplemental irrigation, land drainage, deficit irrigation to full irrigation. In addition, drainage of agricultural lands forms the core theme of our activities. Floods and drought – the two extremes of increasingly variable climate as a result of potential climate change – also form the focus of activities.

## ICID Vision 2030

In order to help address the new sustainable development regime adopted by the United Nations, General Assembly by setting Sustainable Development Goals (SDGs), ICID adopted a forward-looking vision for the next 15 years- VISION 2030 with following vision, mission and organisational goals.

### Vision

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

### Mission

Working together towards sustainable agriculture water management through inter-disciplinary approaches to economically viable, socially acceptable and environmentally sound irrigation, drainage and flood management.

### Six organisational goals to realise vision



# Office Bearers



## **PRESIDENT**

Eng. Felix Britz Reinders (South Africa)

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## **Vice Presidents**

Dr. (Mrs.) Irena G. Bondarik (Russia)

Er. Waseem Nazir (Pakistan)

Er. Madhav Belbase (Nepal)

Er. Naoki Hayashida (Japan)

Dr. Brain Wahlin (USA)

Dr. K. Yella Reddy (India)

Dr. Marco ARCIERI (Italy)

Dr. Kamran Emami (Iran)

Mr. Ahmed EL BOUARI (Morocco)

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## **Secretary General**

Er. Ashwin B. Pandya (India)

*Setting up of*  
**INTERNATIONAL COMMISSION ON  
IRRIGATION AND DRAINAGE**  
by Government of India in 1950



Founder President Padma Vibhushan Dr. A.N. Khosla receiving  
Prime Minister of India Pt. Jawaharlal Nehru

Seeing the positive impact of large irrigation projects constructed by the British rulers in the 19th Century and the early twentieth Century on eradication of famines by stabilizing agriculture production, Government of India (GOI) right from its first five-year plan had laid emphasis on providing irrigation infrastructure to enhance agriculture production. In 1940s it was observed that there was no platform for exchange of experiences, developing the science of irrigation, and planning, design and operation of irrigation infrastructure.

Keeping in view the above, the then Ministry of Works, Mines and Power, Government of India vide letter **No.DW.2156/48 dated 27 May 1948**, with the approval from the Priorities Committee of the Cabinet, sanctioned the proposal to establish an International Commission on Irrigation and Canals (ICIC) with its headquarters in India and nominated the Central Board of Irrigation and Power (CBIP) to take the initiative further, negotiate with various countries having experience in irrigation and act as the National Committee for India. This was followed up by the Central Board of Irrigation and Power. Accordingly, Secretary, Ministry of External Affairs invited 47 countries through diplomatic channels to join the proposed ICIC.

Out of the 47 invited countries, 10 countries accepted the invitation. However, USA, then the country with second largest irrigated area in the world, expressed its reservation. During the visit of Prime Minister to USA, the authorities in USA were also requested to join the initiative of the Government of India. It appears that USA was not against the establishment of the organization but wanted it to be under UN systems with headquarters in New York. This apparently was not acceptable to the Indian leadership as establishment of such an international organization was seen as a prestigious matter. Subsequently, at an Inter-Ministerial meeting, held on the 24 February 1950 the ICIC was established with the objective:

# Role of ICID

## History of Irrigation

Historically, civilizations have been dependent on development of irrigated agriculture to provide agrarian basis of a society and to enhance the security of people. Archaeological investigation has identified evidence of irrigation in Mesopotamia, Egypt, and India as far back as the 6th millennium BCE, where crops were grown in areas where the natural rainfall was insufficient to support such a crop. The Indus Valley Civilization (from 2600 BCE) also had an early canal irrigation system. Large scale agriculture was practiced and an extensive network of canals was used for the purpose of irrigation. Sophisticated irrigation and storage systems were developed, including the reservoirs built at Girnar in 3000 BCE.

The history of irrigation development in India which can be traced back to prehistoric times. Vedas, Ancient Indian writers and ancient Indian scriptures have made references to wells, canals, tanks and dams. These irrigation technologies were in the form of small and minor works, which could be operated by small households to irrigate small patches of land.

**Irrigation Development under British Rule:** Close to nineteenth century according to sources of irrigation; canals irrigated 45 %, wells 35%, tanks 15% and other sources 5%. Famines of 1897-98 and 1899-1900 necessitated British to appoint first irrigation commission in 1901, especially to report on irrigation as a means of protection against famine in India. As a result of recommendations of first irrigation commission total irrigated area by public and private works increased to 16 Mha in 1921. From the beginning of 19th century to 1921 there was no significant increase in tube well irrigated area. During 1910 to 1950 growth rate of irrigation was estimated at 2.0% per annum for government canal irrigation, 0.54% per annum for well irrigation and 0.98% per annum in respect of irrigation from all sources.

**Status at the time of Independence:** At time of independence net irrigated area of India under British rule which include Bangladesh and Pakistan was 28.2 Mha. After partition net irrigated area in India and Pakistan being 19.4 Mha and 8.8 Mha respectively. 20 Major canal systems, including the Sutlej and Indus systems fell to Pakistan's share. East Bengal, now Bangladesh, which comprises the fertile Ganga Brahmaputra delta region, also went to Pakistan. The irrigation works which remained with India, barring some of the old works in Uttar Pradesh and in the deltas of the south, were mostly of protective nature, and meant more to ward off famine than to produce significant yields.

In the First Five Year Plan (1951-56), the country embarked on a major irrigation programme. A number of multipurpose and major projects were taken up, such as Bhakra Nangal, Nagarjunasagar, Kosi, Chambal, Hirakud, Kakrapar and Tungabhadra.

# Need for ICID

India's independence in 1947 had the great Bengal famine as its backdrop. During the Bengal famine of 1942-43, over three million children, women and men died of starvation. India's first prime minister Jawaharlal Nehru, therefore, said in 1947, "Everything else can wait; but not agriculture". This commitment led to the initiation of several programmes in the field of agriculture, such as extension of irrigation facilities, establishment of seed corporations, fertiliser and pesticide factories, development of market infrastructure and setting up of agricultural universities.

Seeing the positive impact of large irrigation projects constructed during the British colonial rule in India,

in the 19th Century and the early twentieth Century on eradication of famines by stabilizing agriculture production, Government of India (GoI) right from its first Five-Year Plan had laid emphasis on providing irrigation infrastructure to enhance agriculture production. In 1940s it was observed that there was no platform for exchange of experiences, developing the science of irrigation, and planning, design and operation of irrigation infrastructure.

Based on the requests received from various irrigation department in India, a joint representation was submitted to Government of India to invite the Governments of other countries to cooperate with them in the setting up of a non-governmental international organization for the development of the science and technique of irrigation and drainage. The then Ministry of Works, Mines and Power, Government of India vide letter No.DW.2156/48 dated 27 May 1948, with the approval from the Priorities Committee of the Cabinet, sanctioned the proposal to establish an International Commission on Irrigation and Canals (ICIC) with its headquarters in India.

The response to the invitation from Government of India was encouraging. Out of the 47 invited countries, 10 countries accepted the invitation and the International Commission on Irrigation and Canals (ICIC) was set up with support from 11 countries as Founder Members (Brazil, Egypt, India, Indonesia, Italy, Netherlands, Serbia (former Yugoslavia), Sri Lanka, Switzerland, Thailand and Turkey) and its Secretariat (Central Office) located in New Delhi, India, at a meeting held at Shimla (India) on 24 June 1950 when a provisional constitution was adopted. At the Inter-Ministerial

meeting, held on the 24 February 1950 the ICIC was established with the objective:

To encourage progress in the design, construction, maintenance and operation of large and small irrigation works and canals (including navigation canals); to bring together information thereon; and to study all questions relating thereto.

The 1st meeting of the International Executive Council (IEC), with Padma Vibhushan Dr. A.N. Khosla as the Founder President of ICID (1950-1954), was held at Shimla on 24 June 1950. The meeting was attended by Canada, Egypt, India, Italy, Netherlands, Pakistan, Switzerland, Turkey, Thailand, and Yugoslavia. USA with second largest irrigated area in the world, expressed its reservation. During the visit of Prime Minister to USA, the authorities in USA were also requested to join the initiative of the Government of India. It was highlighted that USA was not against the establishment of the organization but wanted it to be under UN systems with headquarters in New York. This apparently was not acceptable to the Indian leadership as establishment of such an international organization was seen as a prestigious matter. Subsequently, with the involvement of GoI the matter was settled and USA joined the Commission. The Second International Executive Council meeting of the Commission was held in New Delhi (Parliament House) in January, 1951 where the Constitution was finalised and the name of the Commission was changed as "International Commission on Irrigation and Drainage (ICID)". Almost all the world-renowned experts from irrigation and drainage sector attended the 2nd meeting. Since then many Indian irrigation and drainage professionals have gained from the experiences shared during their participation in technical work bodies and IEC meetings. A couple of ICID annual meetings have since been organized in the country, having been sponsored by the Government of India (Annex 1).

Over the years the membership of the Commission has expanded and it includes 78 countries now (Annex 2) and scope of its activities has also evolved over time, with the current vision focused on a "Water secure world free of poverty and hunger through sustainable rural development".

Given the impetus provided by Indian visionaries to agriculture and irrigation in the India's planning process and the role played by ICID in ushering in the Green Revolution that enabled the country to graduate from a 'ship to plate' situation to a net exporter of food grain, ICID activities have been patronised by Presidents of India: Dr. Rajendra Prasad; Dr. Zakir Hussain; Dr. Shankar Dayal Sharma; Dr. Pranab Mukherjee; and Prime Ministers of India: Pt Jawahar Lal Nehru and Dr. Manmohan Singh (Annex 3).

The Central Office building was constructed in 1964-65 from grant-in-aid received from 37 National Committees and 28 Governments. A total 35 Indian citizens are employed and work directly under the supervision of the Secretary General. It also houses a rich technical library full of international literature open for the use of Indian and regional experts.

Several important functionaries of the Government of India, elected as the Office-Bearers of the Commission (Annex 4), and had the occasion to interact with the world's best minds in irrigation and drainage and have made immense contributions to the global food security. At the same time, many irrigation and drainage luminaries have visited India. ICID has involved more than 400 Indian irrigation professionals in its activities at various given times and has been involved in the dissemination of irrigation and drainage knowledge in India for which it has received many acclaims from Government of India. ICID's contribution to the Green Revolution in India was recognised by releasing postal stamps and covers commemorating the Silver and Golden jubilee celebrations of ICID. The Commission has supported water saving in agriculture by establishing International WatSave Awards that have contributed to promotion of Water Saving in Agriculture in India as

well as globally. A list of honours received by ICID and the International Awards conferred to Indians by ICID are attached as Annex 5.

ICID introduced new tools for water resources assessment and planning through two case studies carried out for Sabarmati River Basin (Gujarat), and Brahmani River Basin (Orissa) as part of Country Policy Support Program in 2005 and brought out a Report on Water Policy Issues of India (Annex 6). More than 100 international experts from all over the world participated in this Program and shared their expertise with Indian professionals. ICID has supported the Indian National Committee on Irrigation and Drainage (INCID) now renamed as Indian National Committee on Surface Water (INCSW) in bringing out number of technical publications (Annex 7) for the benefit of Indian water resources professionals.

With the looming water scarcity due to climate change and pressure of increasing demand from nature and other development sectors, irrigation sector, the largest user of water has the onus to use water more efficiently. It is imperative to bring in second green revolution by making each drop of water produce more. This has to be achieved through modernizing the existing irrigation infrastructure and providing better irrigation services by utilization new technologies which are being experimented around the world. ICID with the mission of "working together towards sustainable agriculture water management through inter-disciplinary approaches to economically viable, socially acceptable and environmentally sound irrigation, drainage and flood management" has a vital role to play in supporting its member countries, including India to share these experiences.



# Green Revolution



The Green Revolution was based on years of painstaking scientific research, but when it was deployed in the field, it yielded dramatic results, nearly doubling wheat production in a few years. The Green Revolution in India started in the early 1960s allowed developing countries, like India, to overcome poor agricultural productivity. Within India, this led to an increase in food grain production, especially in Punjab, Haryana and Uttar Pradesh during the early phase. The introduction of high-yielding varieties (HYV) and the increased use of fertilizers and irrigation are known collectively as the Green Revolution, which provided the increase in production needed to make India self-sufficient in food grains, thus improving agriculture in India. Famines in India, once accepted as inevitable, have not returned since the introduction.

A special programme called the 'package programme' was initiated in 1960-61 in the form of an intensive agriculture district programme (IADP). Father of the "Green Revolution" Dr. Norman Borlaug was invited in 1963 by Gol to take forward the Green Revolution in India. This is where Dr Norman Borlaug's timely help led to a change in India's agricultural history. In 2006, the Government of India conferred on him its second highest civilian award: the Padma Vibhushan.

## Second Green Revolution: Role of Irrigation and Drainage

### Background

Productivity in Indian agriculture has plateaued over the years. As per Indian Council of Agriculture Research, the total demand of food grains is projected to touch 280 million tonnes by the year 2021. Meeting this demand will necessitate growth rate of nearly 2% per annum in the food production. We clearly need a Second Green Revolution that is more broad-based, more inclusive and more sustainable.

“



Make way not for 2<sup>nd</sup> green revolution, but for evergreen revolution.

–Prime Minister Narendra Modi

”

Prime Minister Narendra Modi, by calling for doubling the income of farmers in next five years has laid down the vision for the Second Green Revolution, the concept which has been alluded to during the last five years by two Presidents, two Prime Ministers and two Finance Ministers and Agriculture Ministers in their public speeches. Similarly, leaders of Africa, like former UN Secretary General Mr Kofi Annan, have also called for a second green revolution in Africa as the first one gave the continent a miss.

The Green Revolution was christened as such after a sequence of scientific breakthroughs and development activities that successfully fought hunger by increasing food production. However, in a world that faces new challenges and is more sensitive to the sustainability concerns, it is important that a framework for the “Second Green Revolution” which aligns itself with the sustainable development principles is clearly articulated and is fully comprehended to enable all the stakeholders to contribute towards the desired objectives in a synergetic collaboration.

The Second Green Revolution has to be distinctly different from the first Green Revolution. There are a number of misgivings about the SGR which need to be set straight. Today, India needs SGR not only to feed its population but also to remove distress in the farming community and make Indian agriculture globally competitive. The one that is more broad-based, more inclusive and more sustainable. The emphasis should be on small and marginal farmers. Attempt should be made not only to increase the production but also to sustain the productivity within the limits of natural resources.

It has to cover the regions that got a miss in the first edition, for example the East and North Eastern part of India. It also needs to go beyond the self-sufficiency in food grain: edible oil, pulses and better nutrition. Increasing the productivity under dryland farming

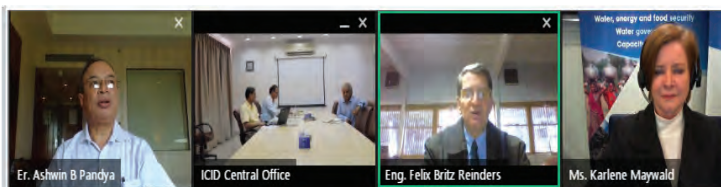
has to be an essential element of the revolution. SGR should envisage integrated programmes taking care of all aspects of agriculture from soil characteristics, matching seeds, grains, conversion to food and its marketing after value addition. Above all it has to be the main vehicle for ensuring the doubling of farmers’ income in 5 years.

International Commission on Irrigation and Drainage, which was established by the visionaries after independence, on 24th June 1950 with its headquarters in New Delhi, has played a crucial role in the outcomes of the Green Revolution. A Seminar was organized in 2016 as part of the 66th ICID Foundation Day Celebration in collaboration with the Indian National Committee on Irrigation and Drainage (INCSW) - Central Water Commission (CWC). This Seminar was graced by Dr. Ramesh Chand, Member NITI Aayog, Dr. Amarjit Singh, Special Secretary, Ministry of Water Resources, few embassy officials from member countries, and many experts to understand the role that irrigation and drainage could play in support of the Second Green Revolution (SGR), particularly in India.

### Objectives:

- ④ clearly articulate the objectives of the Second Green Revolution;
- ④ understand the means by which these objectives could be achieved;
- ④ identify various activities, schemes and programs that would support the objectives;
- ④ comprehend and articulate the role of irrigation and drainage in SGR;
- ④ identify gaps in the ongoing programs, if any; and
- ④ sensitize all possible actors, sectors and stakeholders that can and have to contribute to meet the objectives of SGR.

# Capacity Development Initiatives



ICID National Committees lead and manage their own development process, while ICID supports them in this endeavour by strengthening their capacities to work towards sustainable agriculture water management.

## ♦ Organizing Webinars on various issues of interest to AWM community

- Water Use Efficiency (Speakers: Er. Felix Reinders and Dr. Chris Perry) 1 March 2017
- Water Accounting and Audit (Speaker: Dr. Wim Bastiaanssen) 3 April 2017
- Practical Benchmarking for Improving Performance of Irrigation and Drainage Schemes (Speaker: Dr. Martin Burton) 7 June 2017
- Planning for Irrigation Modernization – The MASSCOTE Approach (Speaker: Dr. Robina Wahaj, FAO) 5 July 2017
- National Water Account: Australian Experience (Speaker: Dr Amgad Elmahdi) 18 July 2017
- Seminario web sobre El Marco de Contabilidad de Agua WA+ para la Gestión de Recursos Hídricos (Speaker: Dr. Gonzalo E. Espinoza (UNESCO-IHE)) 25 July 2017
- عيىءالمء ءبءءءءءءءء / Water Accounting (Speaker: Dr. Yasir A. Mohamed) 5 September 2017
- Save Irrigation Water Using the Innovative Machine of Soil and Water Management for Rice Crop Cultivation (Speaker: Dr. Mohamed E. El-Hagarey) 3 April 2018
- Using System Rice Intensification to Increase Water Productivity in Nile Delta, Egypt (Speakers: Dr. Arnulfo Gonzalez-Meza and Ms. Sabah Khalifa) 13 June 2018
- Seamless Climate Service and Downscaling for Climate Change Adaptation (Speaker: Dr. Jaepil CHO) 5 July 2018
- Negotiations for Resolution of Transboundary Water Conflicts (Speaker: Hon. Minister Australia Ms. Karlene Maywald) 1 August 2018
- Water and Heritage (Speakers: Henk van Schaik (ICOMOS Netherlands) and Tino Mager (TU Delft / Centre for Global Heritage and Development) 14 November 2018
- Smart technology to reduce energy consumption





for water spreading and pipe production in hose reel sprinkler irrigation (Speakers: Dr. Graziano Ghinassi and Sergio Sacchini) 5 December 2018

- Open Source Geo-Spatial Tools and Mobile Device for Canal Network Digitization (Speaker: Er. Paavan Kumar Reddy Gollapalli) 14 December 2018
- ♦ Organizing online courses in cooperation with partner organizations
- ♦ Organizing lectures/ presentations of the eminent personalities
- ♦ Organizing workshops/ trainings/ seminars
- ♦ Organizing technical tours
- ♦ Mobilizing experts for the success of events
- ♦ Hosting virtual library of ICID catalogue (Integrated Library Management System - ILMS)
- ♦ Brings together available tools/ models related to irrigation and drainage <[http://www.icid.org/res\\_tools.html](http://www.icid.org/res_tools.html)>
- ♦ Managing online Multilingual Technical Dictionary on Irrigation and Drainage
- ♦ Organizing Young Professionals e-Forums
- ♦ Knowledge Management portal

# Main Focus Area

ICID through its pool of over 300 eminent professionals/ experts from the diverse disciplines drawn from its members national committees share experience and disseminate knowledge for sustainable agriculture water management including planning, design, operation, management and development of irrigation, drainage and flood management works throughout the world. The main focus areas of ICID activities are as follows:

- |   |   |
|---|---|
| <input type="checkbox"/> Modernization of Irrigation Systems and Services       | <input type="checkbox"/> Institutional Aspects of Irrigation              |
| <input type="checkbox"/> Water Saving in Agriculture                            | <input type="checkbox"/> On-farm Irrigation Systems                       |
| <input type="checkbox"/> Regional Issues of Irrigated Agriculture               | <input type="checkbox"/> Role of Irrigation in Rural Development          |
| <input type="checkbox"/> Sustainable Agricultural Drainage                      | <input type="checkbox"/> Flood and Drought Management                     |
| <input type="checkbox"/> Use of Poor Quality Water for irrigation               | <input type="checkbox"/> Bio-energy                                       |
| <input type="checkbox"/> Global Climate Change and Agriculture Water Management | <input type="checkbox"/> Environmental Impacts of Irrigation and Drainage |
| <input type="checkbox"/> Sustainable Development of Tidal Areas                 | <input type="checkbox"/> Capacity Development                             |



# Initiatives and Programmes

ICID has taken/taking number of initiatives and programmes to support sustainable development of agriculture water management, exchange of knowledge and its wider dissemination, capacity development and so on. Some of the main initiatives are listed below.

- World Irrigation Forum (WIF): a triennial multi-disciplinary forum for sharing and learning by engaging experts from various disciplines;
- Technical Support Program (TSP): with the overall objective of undertaking capacity development activities in the field of agriculture water management (AWM) in support of rural development including support for developing feasibility reports for small and medium irrigation, drainage and flood management proposal;
- World Heritage Irrigation structures (WHIS): recognition of WHIS with the objective of tracing the history of and understanding the evolution of irrigation in the civilizations across the world, learn the philosophy and wisdom on sustainable irrigation from these structures; and protect/preserve these historical irrigation structures;



- World Water System Heritage (WSH): with the aim of identifying, giving recognition and preserving the people-centred water management systems, organizations, regimes and rules as intangible water heritage considered to be of outstanding value to humanity that creates coexistent social system for humanity and sound environment;
- World Irrigation and Drainage Prize (WID Prize): for lifetime achievement in the sector;
- Annual Water Saving (WatSave) Awards: for outstanding contributions in four categories- Technology, Management, Young Professionals, and Farmers;
- ICID Young Professional e-Forum (IYPeF): to provide an opportunity to young professionals (YP) to engage, network and share their experiences and also learn from the experiences of senior engineers, encouraging YPs to take up career in agriculture water management by sponsoring participation in ICID events and support for capacity development activities;
- Promotion of multi-disciplinary engagement for sustainable solution to water management in agriculture; and
- Products and Services Directory in Irrigation and Drainage sector: A platform for manufactures/consultants and experts to display their services and expertise.

# International Cooperation

ICID has formalized Memorandum of Understandings (MoUs) or Letter of Agreements (LoAs) with its likeminded partners in undertaking collaborative efforts in the areas of mutual interest. Besides, ICID also has consultative status with a number of UN bodies like ECOSOC, FAO, UNESCO, WHO, WMO and ISO. ICID's major collaborative programs are with UN-Water, FAO, ADB, IWMI, WWC, World Bank, IWRA, DWFI, CSIRO, AARDO, IGS, IFAD, ICOLD, and ICRISAT among others. The Commission also collaborates with all the major international organizations dealing with AWM such as FAO, IWMI, IFAD, ICRISAT, WWC, ICOLD, IWRA and WMO among others to address challenges associated with food and water security and AWM. As a partner organization of UN-Water, ICID interacts with various UN agencies dealing with water and thereby utilize the platform for advocacy for irrigation and drainage.



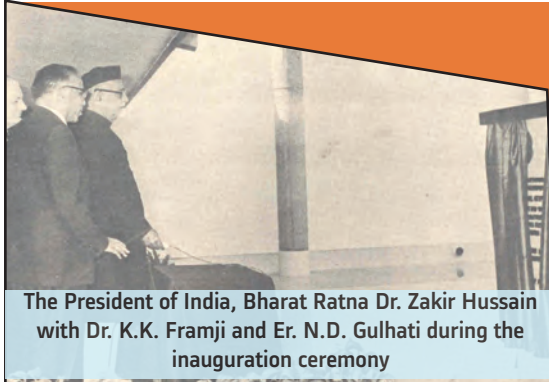
## Events Hosted and Sponsored by Government of India

ANNEX 1



Year	Event	Location
June 1950	1 <sup>ST</sup> International Executive Council (IEC) meeting	Simla, India
January 1951	2 <sup>nd</sup> IEC /1 <sup>st</sup> Congress	Delhi, India
June 1953	4 <sup>th</sup> IEC	Bangalore, India
January 1966	17 <sup>th</sup> IEC / 6 <sup>th</sup> Congress	New Delhi, India
October 1982	33 <sup>th</sup> IEC	New Delhi, India
December 2009	60 <sup>th</sup> IEC	New Delhi, India
December 2009	5 <sup>th</sup> Asian Regional Conference	New Delhi, India
January 2000	8 <sup>th</sup> International Drainage Workshop	New Delhi, India
January 2019	9th International Micro Irrigation Conference	Aurangabad, (Maharashtra) India

## Central Office Building Inauguration



## Recognitions

- Certificate of Appreciation from American Society of Civil Engineers, 1952.
- Certificate for Best Printing and Display by the Ministry of Information and Broadcasting (Govt. of India) to the "Flood Control in the World - A Global Review" in the year 1975-76
- Certificate of Best Printing and Display to the ICID Bulletin, Vol. 38, No.2 in July 1979.
- United Nations "Peace Messenger Award" on 15 September 1987



## WatSave Award Winners from India

The WatSave Awards are presented every year to promote and encourage the best technological applications or projects which have been successful in saving water.

### Technology

Dr. Yella Reddy, Mr. Satyanarayana and Mrs.G Andal, India (2008)

### Innovative Water Management

1. Er. Suresh. V. Sodal, India (2004)
2. Messrs Shahaji Manikrao Somawanshi, Bharat Kawale and Sanjay Madhukar Belsare, India (2009)
3. Prof. Dr. Subhash Madhawrao Taley, India (2011)

### Young Professionals




1. Er. Sanjay M. Belsare, India (2001)
2. Dr. Ashutosh Upadhyaya, India (2002)
3. Ms. Neelam Patel, India (2006)

### Farmers' Award

1. Mr. Arvind Narayanrao Nalkande, India (2009)
2. Mr. Bhagwan M. Kapse, India (2015)
3. Dr. Vijay Sharad Deshmukh, India (2017)

For more details, please visit: [http://www.icid.org/awards\\_ws.html](http://www.icid.org/awards_ws.html)

## Past ICID Office Bearers from India

Sl. No.	Name	Brief details
1	 <p>Padma Vibhushan Dr. A.N. Khosla (India), 1950-1954</p>	<p>First Indian Vice-Chancellor - Thomason College of Civil Engineering (IIT- Roorkee)</p> <p>Inventor - Khosla Disc for precision levelling across rivers and wide valleys</p> <p>Ex-Member of the Planning Commission</p> <p>Ex-Governor of Orissa</p> <p>(<a href="http://www.thehindu.com/seta/2003/06/19/stories/2003061900020200.htm">http://www.thehindu.com/seta/2003/06/19/stories/2003061900020200.htm</a>)</p>
2	 <p>Padma Bhushan Er. N.D. Gulhati (India), 1960-1963</p>	<p>Ex-Secretary of the Central Board of Irrigation and Power</p> <p>Chief of the Natural Resources Division in the Planning Commission</p> <p>Additional Secretary to Government of India in 1958</p> <p>Chief Representative on the Indus Waters negotiations</p> <p>Water Resources Consultant to many State Governments in India and as Consultant to IBRD (1963), as Consultant to the International Development Association (1963-1973), and as Consultant to United Nations (Economic Commission for Asia and Far East, now ESCAP) in 1969.</p> <p>(<a href="http://www.icid.org/about_ndg.html">http://www.icid.org/about_ndg.html</a>)</p>
3	 <p>Dr. K.K. Framji (India), 1988</p>	<p>Ex-Director of the Indian Waterways and Navigation Experiment Station (now Central Water and Power Research Station, Pune)</p> <p>Ex-Joint Secretary, Ministry of Water and Power</p> <p>Listed in various editions of the International Who's Who</p>

Presidents Honoraire ([http://www.icid.org/past\\_presidents.html](http://www.icid.org/past_presidents.html))

**VICE PRESIDENTS HONORAIRE**  
([http://www.icid.org/past\\_vp.html](http://www.icid.org/past_vp.html))

No.	Name and Detail
1	Padma Bhushan Dr. Kanwar Sain , India (1954-1957) - IWRS-DC organizes a "Kanwar Sain Memorial Lecture" every year
2	Mr. Yadava Mohan, India (1963-1966) – Member, Planning Commission, Chief, Natural Resources Division
3	Padma Bhushan Dr. M.R. Chopra, India (1966-1969) - Ex-Chairman, Central Water Commission (CWC)
4	Mr. S.K. Jain, India (1970-1973) – Ex Chairman, UP State Electricity Board; Ex Chairman, Central Water and Power Commission; President, Central Board of Irrigation and Power
5	Mr. J.P. Naegamvala, India (1973-1976) – Ex Member, Central Water and Power Commission
6	Mr. C.C. Patel, India (1976-1979) - Ex-Secretary, Ministry of Water Resources
7	Mr. J.F. Mistry, India (1982-1985) - Ex-Secretary, Ministry of Water Resources
8	Mr. P.R. Gandhi, India (1985-1988) – Secretary, Government of Maharashtra, Irrigation Department; Vice President, Central Board of Irrigation and Power
9	Mr. B.P. Bhatnagar, India (1989-1991) - Secretary to Government, Irrigation Department, Rajasthan
10	Dr. M.S. Reddy, India (1991-1994) – Ex-Secretary, Ministry of Water Resources
11	Mr. Ramesh Chandra, India (1994-1997) – Ex-Chairman, Central Water Commission (CWC)
12	Mr. R. Jeyaseelan, India (2003-2006) – Ex-Chairman, Central Water Commission (CWC)
13	Mr. A.K. Bajaj, India (2009-2012) – Ex-Chairman, Central Water Commission (CWC)
14	Er. A.B. Pandya, India (2013-2016) – Present (Ex-Chairman, Central Water Commission (CWC))

**SECRETARIES GENERAL HONORAIRE**  
([http://www.icid.org/past\\_sg.html](http://www.icid.org/past_sg.html))

No.	Name and Detail
1	Padma Bhushan Er. N.D. Gulhati (1950-1957)
2	Mr. Yadav Mohan (1957-1963)
3	Dr. K.K. Framji (1963-1988)
4	Dr. R.S. Varshney (1988-1992) - U.P. Irrigation Department (India), Engineer-in-Chief and Head of that Department
5	Dr. M.A. Chitale (1993-1997) - Ex-Secretary, Ministry of Water Resources
6	Dr. C.D. Thatte (1998-2003) - Ex-Secretary, Ministry of Water Resources
7	Er. M. Gopalakrishnan (2004-2011) – Ex-Member, Central Water Commission (CWC) & Ex-Coordinator, High Level Task Force on Interlinking of Rivers, 2003
8	Er. Avinash C. Tyagi (2012-2018) – Present (Served Ministry of Water Resources for 28 years in various capacities; Ex-Director of the Climate and Water Department of the World Meteorological Organization (WMO))

## Patronization by former Presidents / Prime Ministers of India

ANNEX 6



Dr. A.N. Khosla with President of India, Dr. Rajendra Prasad at a high-level meeting



Dr. A.N. Khosla with Prime Minister of India, Pandit Jawaharlal Nehru interacting with French delegation



Prime Minister Dr. Manmohan Singh at the Inaugural Ceremony of 5th Asian Regional Conference at Vigyan Bhavan, New Delhi



President Dr. Pranab Mukherjee releasing the Commemorative Stamp at Asian Regional Conference at Vigyan Bhavan, New Delhi

## Country Policy Support Program (CPSP)

ICID launched a proposal in August 2002, called "Country Policy Support Program" (CPSP) to contribute to develop effective options for water resources development and management to achieve an acceptable food security level and sustainable rural development. The CPSP basically aims at assessing and integrating water needs for three sectors, viz. food, people and nature, for the present and for the year 2025, with a goal to evolve policy interventions.

The broad objective of the programme was to examine cross cutting issues and offer effective options for integrated water management in its participating countries. In the 1st phase of the programme (2002 -2005) five countries viz. China, India, Egypt, Mexico and Pakistan and five partnering international organizations viz., IWMI, IFPRI, FAO, IPTRID, The World Bank and the Asian Development Bank have participated. Country Policy Support Program (CPSP) was funded by the Sustainable Economic Development Department, National Policy Environment Division, Government of The Netherlands.

As an outcome of the CPSP, ICID brought more than 14 reports and a software called 'Basin-wide Holistic Integrated Water Management (BHIWA) Model' especially developed to provide an integrated computational framework for a basin level assessment of water resources with a view to evaluate water sector policies.



[http://www.icid.org/icid\\_projects.html](http://www.icid.org/icid_projects.html)

## List of INCID/INCSW Publications

1. Non-structural aspects of flood management in India, 1993
2. Drip Irrigation in India, INCID, New Delhi, July 1994.
3. Guidelines for preparation of plans of operation and maintenance of irrigation system in India, 1994
4. Non-Structural Aspects of Flood Management in India - Adbridged Version, 1994
5. Guidelines for Planning Conjunctive Use of Surface and Ground Waters in Irrigation Projects, 1995
6. Pipe Distribution System for Irrigation, New Delhi, INCID, September 1998.
7. Sprinkler Irrigation in India, INCID, New Delhi, May 1998.
8. Manual on Canal Lining, 2000
9. History of Irrigation Development in Tamil Nadu, INCID, New Delhi, March 2001.
10. Guidelines for benchmarking of irrigation systems in India, 2002
11. Bio-Drainage Status in India and other Countries, Rajasthan, India, INCID, March 2003.
12. Decision Making Procedures in India for Dam Building, (Andhra Pradesh) INCID, New Delhi, March 2003 – Nagarjunasagar
13. Report on Participatory Irrigation Management, INCID, New Delhi, June 2003.
14. History of Irrigation Development in Andhra Pradesh, INCID, New Delhi, March 2004.
15. Irrigation Acts of the States of North India - Part II - Himachal Pradesh & Jammu and Kashmir, 2005
16. Irrigation Acts of the States of North India Part -I Punjab & Uttar Pradesh Including Uttaranchal, 2005
17. Irrigation Acts of the States of North India, (Himachal Pradesh & Jammu & Kashmir), INCID, New Delhi, March 2005.
18. History of Irrigation Development in Orissa, INCID, New Delhi, November 2009.
19. History of Irrigation in Uttar Pradesh, INCID, New Delhi, March 2011.
20. Rengali Multi-Purpose Project: A Boon for Odisha, Indian National Committee on Surface Water (INCSW), New Delhi 2014.

### Jointly Contributed to:

1. Journal of Governance - Special Issue on Governance in Water Sector, January 2017
2. The Indus Basin: History of Irrigation, Drainage and Flood Management, 2004
3. Water Saving in Agriculture, 2008
4. Multilingual Technical Dictionary, 2010
5. Irrigation and Drainage in the World, 1982
6. Irrigated Rice - A World-Wide Survey, 1977
7. Flood Control in the World, 1976
8. Design practices of Irrigation Canals in the World, 1972
9. Irrigated Wheat - A World-Wide Survey, 1972

### Technical articles:

- Papers in ICID Journal
- Articles in ICID News
- Submitted technical papers in - Congresses, Workshops, Seminars and World Irrigation Forum

# ICID Vision 2030

## A Water Secure World Free of Poverty and Hunger



**ICID•CIID**

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