



# International Commission on Large Dams



## **INCA**

### **Dam Safety Seminar 2019**

**HERNANDARIAS, PARAGUAY 5-6 NOV**

**Michel de VIVO**  
ICOLD Secretary General



# Acting for better dams is more important than ever !

- ❖ Climate change is occurring sooner than expected producing major hydrologic variability
- ❖ Population of the world is increasing with more and more needs
- ❖ Dams Sedimentation reduces storage capacity of existing dams

**Global Water Storage per Capita is decreasing !!!**

- ❖ In recent years, we deplore a series of dam failures.



# **We need to build new large dams and maintain the old ones**

- ❖ We must improve the Maintenance and Operation of existing water storage infrastructures
- ❖ We need to accelerate the Development of new large dams:
  - for multi-purposes
  - better environmentally acceptable
  - and Safe

**ICOLD works hard in that way !**



# 90th Anniversary of ICOLD last year in Paris



ICOLD celebrated its 90<sup>th</sup> Anniversary in December 2018 in Paris





# 101 Country Members !



ICOLD welcomed its  
100<sup>th</sup> Country Member,  
Kingdom of Bhutan in 2017

Uganda joined ICOLD in  
Ottawa, Canada in 2019



# Dam safety is crucial for the future of dams

- ❖ Major accidents on every continent during the last two years :
  - Brazil, Colombia, USA in America
  - but also Laos, Russia, United Kingdom...

**A World Declaration on Dam Safety  
is to be issued soon !!!**



- ❖ ICOLD has drafted that declaration during the year 2019.
  - After consultation with the ICOLD National Committees
  - it has been finally approved by ICOLD Board.



# Three World Declarations

- ❖ In 2008 “Dams & Hydropower for Sustainable Development of Africa”
- ❖ In 2012 “Water Storage for Sustainable Development”
- ❖ In 2019 “Dam Safety”





# **ICOLD a large world Forum of Work and Exchanges**

## **❖ 27 Technical Committees**

- 500 experts working 3 to 5 years on specific subjects
- for producing Bulletins representing the world experience
- as Guidelines for all the profession.

## **❖ 4 Questions submitted at the ICOLD Congress**

- Every 3 years, all the 100 country members
- present reports of their best works on the 4 main current questions (chosen by all the dam community).
- These reports are debated & published at the Congress.



# **ICOLD a large world Forum of Work and Exchanges**

- ❖ Annual Meetings & Congresses, Forum for Sciences for about 100 countries
- ❖ One-week place for expression for 1000 to 2000 experts
- ❖ Technical Committees days
- ❖ Regional Club Meetings (Africa, Asia, Europe, America)



# ICOLD a large world Forum of Work and Exchanges

- ❖ International Symposium & special Workshops
- ❖ International Exhibition
- ❖ Young Engineers Forum specially reserved for < 40 years
- ❖ Special Young Awards for the best reports at Symposium





# Regional Clubs

- ❖ Regional Clubs are more and more active and attractive
- ❖ Regional Clubs discuss the specificities of the regions
- ❖ Example: “Hydropower Europe”, a research project on the future of Hydropower, launched by European Union, for which ICOLD is the leader.
- ❖ Example: Regional meetings in Africa, co-organized with Aqua Media International and with the strong involvement of the African Club.
  - Ethiopia (2013), Morocco (2017), Namibia (2019), Uganda (2021)



# Regional Club meeting: Asia Pacific Group in Prague, 2017





# **INCA's important contributions to ICOLD**

- ❖ Annual Meeting in Iguazu (2002)
- ❖ Congress in Montreal (2003)
- ❖ Congress in Brasilia (2009)
- ❖ Annual Meeting in Ottawa (2019)

**And many high level meetings organized in the Americas**



# Last Annual Meeting in Ottawa

❖ Around 1 500 participants from about 80 countries

❖ 2 New Vice-Presidents were elected:

- Mr Devandra Sharma (India)
- Mr Enrique Cifres (Spain)



❖ Gothenburg (Sweden) was elected to host the 91th Annual Meeting in 2023





# Last Annual Meeting in Ottawa

❖ The Questions for 2021 Congress in Marseille (France) were chosen:

- Q104 Concrete Dam Design Innovation and Performance
- Q105 Incidents and Accidents concerning Dams
- Q106 Surveillance, Instrumentation, Monitoring and Data acquisition
- Q107 Dams and Climate Change

**Your experiences and reports on these questions will be presented and debated at the Congress !!!**



# ICOLD Annual Meeting in Ottawa

## ❖ 5 new Bulletins were approved:

- Tailing Dams Design – Technology Update
- Sediment Management in Reservoirs: National Regulations and Case Studies
- Selection of Dam Type
- Management of Expansive Chemical Reaction in Concrete Dams & Hydroelec. Projects
- Challenges and Needs for Dams in the 21st Century



# ICOLD Annual Meeting in Ottawa

- ❖ 2 personalities received the Honorary Awards:
  - Dr. Ma Hongqi (China)
  - Dr. Malcolm Dunstan (United Kingdom)





# New Delhi 2020 Annual Meeting & Symposium

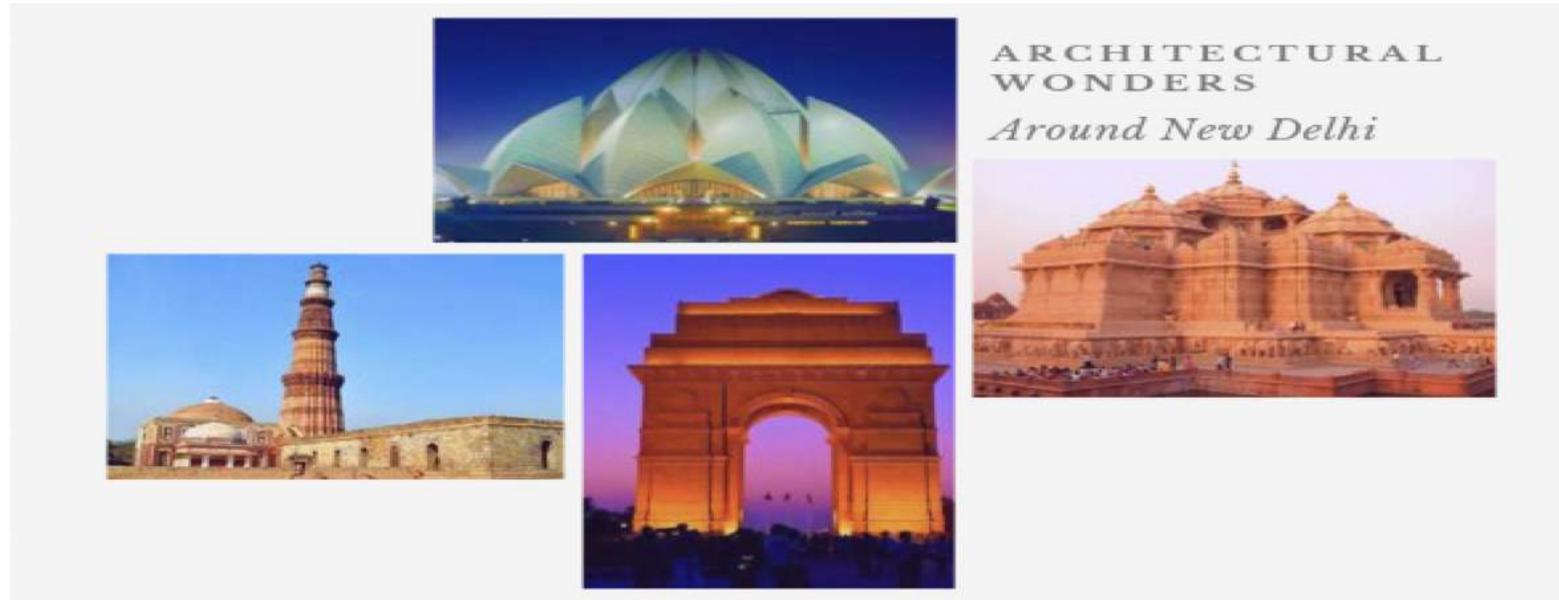


**INDIA is a land of opportunity !!**

- ❖ 5 264 existing dams, 437 large dams under construction
- ❖ 50 000 MW of Hydropower capacity already exist
- ❖ But Some 100 000 MW are waiting to be developed



# New Delhi 2020 Annual Meeting & Symposium



Indian National Committee on Large Dam (INCOLD) has prepared an excellent program in an exciting venue, with a **Symposium on the theme « Sustainable Development of Dams and River Basins »** and a Technical Tour which will include the famous Taj Mahal and its incredible water devices.



# New Delhi 2020

## Annual Meeting & Symposium

- ❖ It is therefore a **place of opportunity for dam professionals**, not only in India but also in the other countries of the region, like Pakistan or Bhutan.
- ❖ India launched the DRIP, a large and successful program for Dam Safety supported by the World Bank which is an example for other countries.
- ❖ With around 1 500 participants from 100 countries, it will be a unique occasion to meet high level dam experts and decision makers from that **very promising part of the world**

**REGISTER NOW :** [www.icold2020.org](http://www.icold2020.org)



*I wish you a fruitful conference !*

*« Better dams for a better World! »*

[www.icold-cigb.org](http://www.icold-cigb.org)