



THDC India Ltd.

International Conference on HYDROPOWER AND DAMS DEVELOPMENT FOR WATER AND ENERGY SECURITY – UNDER CHANGING CLIMATE



Sustainable Development through Dams and Hydropower

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Central Board of
Irrigation & Power



Indian National Committee
on Large Dams

The Role of ICOLD for Sustainable Development of Dams

- ICOLD Vision of Cooperation & Collaboration
- Relevance of ICOLD Technical Committees
- Nexus of Hydro with other Renewables
- Adaptability and Fit-for-Purpose of Solutions
- Only Positive Impacts to Future Generations
- ICOLD Mission of Safety for Dams and Levees





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ICOLD VISION OF COOPERATION AND COLLABORATION

- Formed 1928 - 94 years ago
- 104 Countries (and growing)
 - representing >5 billion people on Planet
- Dams (all sizes) PLUS Levees & Tailings
- 26 Technical Committees –
 - Most associated with dam safety
 - Most consider sustainability
- Cooperation to Document the State of the Practice
- Committed to Collaboration for the Benefit of all Nations





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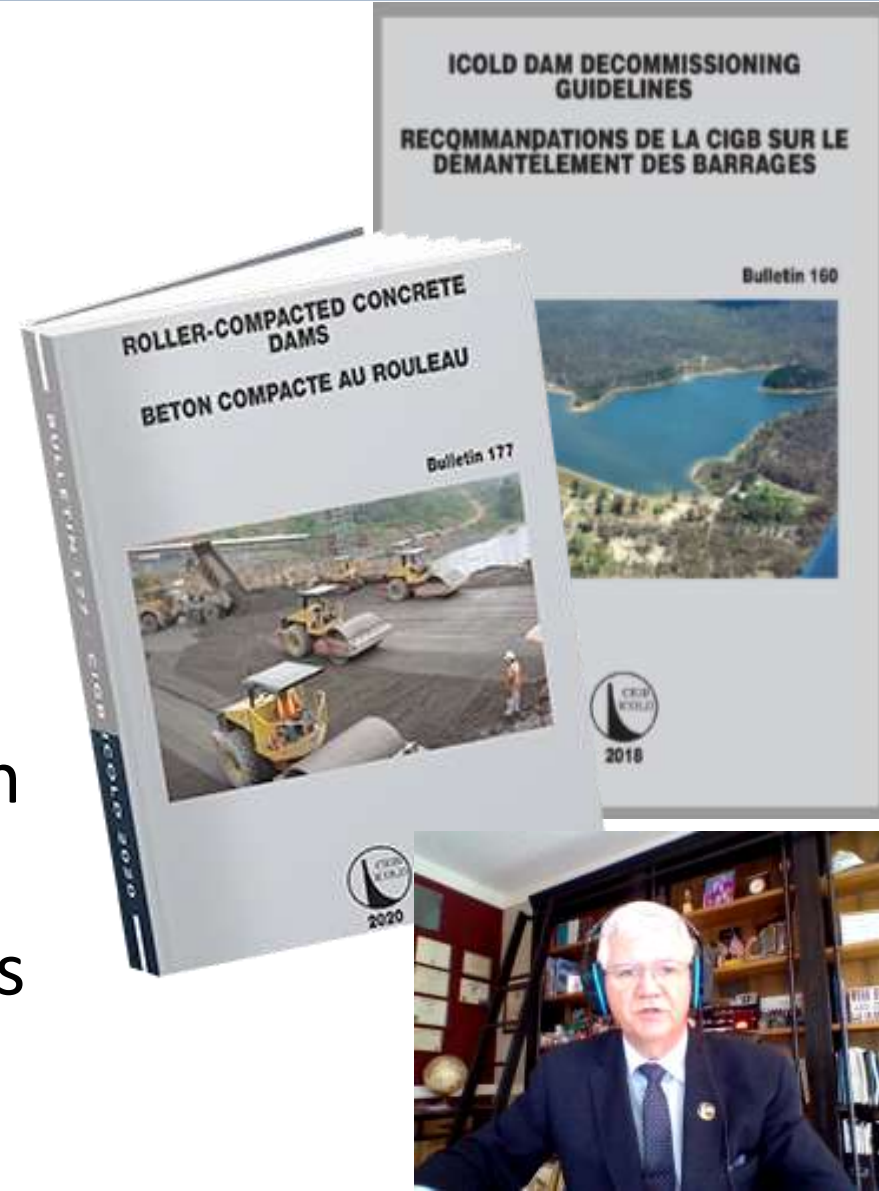
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ICOLD TECHNICAL COMMITTEES

- ICOLD Technical Committees are formed by worldwide leading experts in their field
- TCs produce guidelines which are accepted as or guidance towards worldwide standards
- ICOLD TC-Y Climate Change





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NEXUS OF HYDRO WITH OTHER RENEWABLES

- Natural synergy of Hydro with Wind and Solar
- Pumped-storage hydro allows energy storage from other renewables
- ICOLD Tech Comm T-Emerging Challenges and Solutions





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ADAPTABILITY AND FIT-FOR-PURPOSE

- INCREASING DEMAND FOR CRITICAL INFRASTRUCTURE
 - Growing Populations and Technology
 - Need for Reliable Water and Dependable Power Supplies
- NEW and OLD
 - New Projects in many areas – e.g., China, Africa,
 - Strong developments of dam safety – e.g., India,
 - Addressing Life Expectancy Issues
 - Modifications and Expansion – dam raising and reservoir expansion
- CLIMATE CHANGE
 - Changing Hydrology
 - Shifting Operations





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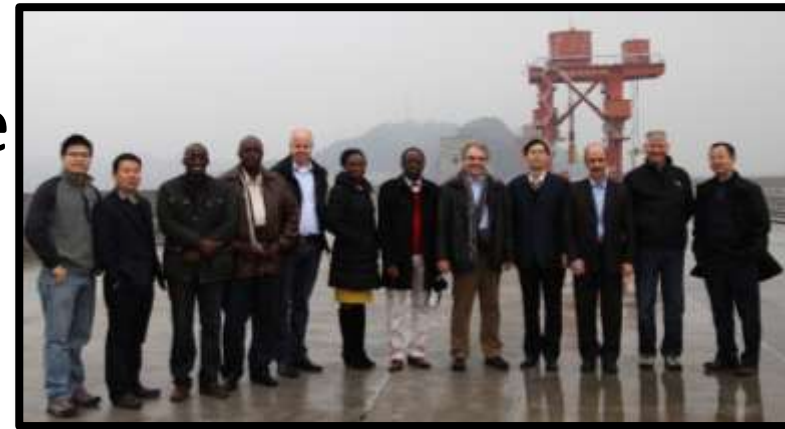
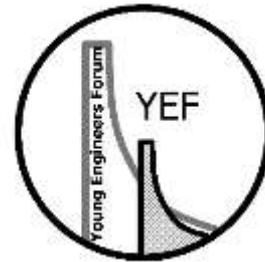


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ONLY POSITIVE IMPACTS TO FUTURE GENERATIONS



- ICOLD is State-of-the-Practice
- Capacity Building of National Skills – Role of ICOLD
- Young Professionals – Mentoring & Training



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ICOLD MISSION OF SAFETY FOR DAMS AND LEVEES

- ICOLD has a Legacy of Safety to Prevent Dam Failures
- For the Future, a renewed focus on safety WITH sustainability
- Work Hard and Stay Humble





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Concluding Remarks on The Role of ICOLD for Sustainable Development of Dams

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Thank you



**ICOLD 2022
Annual Meeting &
Congress
Marseille (France)
May 27-June 3, 2022**



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