# **National Conference on**

# Sedimentation Management for Sustainable Water and Hydropower Development

Date: 4<sup>th</sup>-5<sup>th</sup> September, 2025 (Thu-Fri)
Venue: Central Board of Irrigation & Power (CBIP), Malcha Marg, New Delhi



# Organised by





### in association with



#### INTRODUCTION

Sedimentation management in reservoirs is a cornerstone of sustainable water and hydropower development. As critical infrastructure for water supply, irrigation, hydropower generation, flood control, and recreation, reservoirs play a vital role in socio-economic development. However, their long-term functionality is increasingly threatened by sediment accumulation.

Over time, the deposition of sediment in reservoirs leads to a progressive loss of storage capacity, degradation of water quality, operational inefficiencies, and adverse impacts on downstream ecosystems. This reduction in storage capacity also heightens flood risks during high-precipitation events and undermines the reliability of water and energy supply systems.

To address these challenges, effective sedimentation management strategies must be implemented across the lifecycle of water infrastructure. This involves a combination of upstream watershed management, in-reservoir sediment control, and downstream sediment continuity approaches. Key techniques include sediment monitoring and modeling, sediment exclusion and control structures, flushing and sluicing operations, mechanical dredging, and integrated watershed and land management practices.

Sustainable sedimentation management seeks to balance developmental needs with environmental stewardship. It emphasizes reducing sediment inflow through catchment interventions, improving sediment routing through hydraulic design innovations, and restoring sediment connectivity to support healthy riverine ecosystems.

Recognizing the urgent need to address these issues and to facilitate meaningful dialogue among professionals, researchers, policymakers, and stakeholders, the **Indian Committee on Large Dams (INCOLD)** is organizing the **National Conference on Sedimentation Management for Sustainable Water and Hydropower Development**. The conference aims to provide a comprehensive platform for sharing knowledge, experiences, best practices, and innovations in sedimentation management, with the ultimate goal of promoting resilient and sustainable infrastructure development in the country.

#### ABOUT THE INCOLD

The Committee for International Commission on Large Dams, (INCOLD) is the Indian Committee interacting with ICOLD Central Office in Paris and helps in dissemination, in India, of information about new developments in dam engineering, besides projecting India's expertise at international level through participation in various events of ICOLD. Indian experts are many a time invited to officiate as members of ICOLD Committees on specialized topics. Presently Indian representatives are members in 19 technical committees out of 27 committees of ICOLD.

#### TOPIC BEING COVERED BUT NOT LIMITED TO:

#### 1. Sedimentation Challenges and Future Outlook

- o Sedimentation Management Global and National Perspectives
- o Key Issues and Emerging Challenges in Indian River Basins
- o Impacts of Sedimentation on Water Security and Energy Reliability

#### 2. Reservoir Sedimentation- Causes, Impacts, and Adaptation

- Sediment Deposition in Reservoirs: Storage Loss and Operational Risks
- Case Studies of Reservoir Siltation and Lessons Learned
- Reservoir Morphodynamics and Risk Assessment Tools

#### 3. Sediment Management in Run-of-River and Diversion Structures

- Sediment Handling in Run-of-River (RoR) Schemes
- o Desilting Basins and Flushing Techniques at Headworks
- o Hydraulic Design Improvements for Efficient Sediment Exclusion

#### 4. Catchment Area and Watershed Management

- Integrated Watershed Management Strategies
- Catchment Degradation and its Link to Sedimentation
- o Role of Afforestation, Check Dams, and Soil Conservation Measures

#### 5. Innovations in Hydraulic Research and Modelling

- o Advances in Physical and Numerical Modelling for Sediment Transport
- o Reservoir Sediment Simulation Techniques and Flow Dynamics
- o Real-Time Monitoring and Predictive Analytics for Sediment Control

#### 6. Sustainable Sediment Management Strategies

- Sediment Flushing, Bypassing, and Dredging Techniques
- o Adaptive Reservoir Operation and Maintenance Strategies
- Sediment Recycling: Concepts and Applications in Infrastructure and Agriculture

#### 7. Environmental and Ecological Considerations

- Environmental Impacts of Sediment Displacement
- Sediment Management and Downstream Ecosystem Health
- Sediment Connectivity and River Morphology Restoration

#### 8. Policies, Guidelines, and Regulatory Framework

- National and International Policies for Sediment Management
- o Guidelines for Reservoir Sustainability and Operational Protocols
- o Institutional and Governance Challenges in Implementation

#### 9. Emerging Tools, Technologies, and Best Practices

- o Smart Sensors, AI, and IoT in Sediment Monitoring
- o Drone and Satellite Applications for Catchment Analysis
- o Case Studies on Best Practices in Sustainable Reservoir Management

#### PRESENTATIONS BY EXPERTS:

The Eminent Industries experts including Academia have been invited to deliver expert lectures during the conference. The professionals who desire to present the case studies or presentation on the above subject are also welcomed. Speakers are requested to send their presentation /case studies / papers to the organizers in advance positively by 30th August 2025.

#### OFFICIAL LANGUAGE

English will be the official language of the Conference.

#### SUBMISSION OF TECHNICAL PAPERS/PRESENTATION/CASE STUDIES

Experts who desire to submit technical papers, presentation or case studies on above topics or any other related topics are welcome to submit the same by 30<sup>th</sup> August, 2025.

#### **REGISTRATION FEE**

The registration fee payable, per delegate, including authors of papers, for participation in the Conference is as follows:

- The registration fee for participation is Rs.12,000/- per participant.
- There would be discounted fee of Rs.10,000/- per participant, applicable for Members of CBIP, INCOLD.
- 50% discount in the fee will be applicable for Student

#### GST @18% will be charged extra on Registration Fee.

The registration fee covers the cost of registration kit, lunch and tea in-between the technical sessions.

Notes: 1. Participants will have to make their own arrangement for travel, boarding and lodging, etc.

2. Last date for receipt of Registration is 30<sup>th</sup> August 2025. Spot registration facility will also be available, provided prior information is received.

#### OPPORTUNITIES FOR TABLE TOP DISPLAY

Limited Stalls are available on first come basis, @ Rs. 50,000/- Plus GST\* per stall, for display of products, services & Innovations.

\*GST shall be charged Extra

#### SPONSORSHIP OPPORTUNITY

The Conference provides an effective opportunity for organizations/companies to sponsor/support the Conference Under following categories:

Platinum Sponsor	Gold Sponsor	Silver Sponsor
INR 3,00,000/-	INR 2,00,000/-	INR 1,00,000/-
<ul> <li>10 delegate passes for participation in the conference</li> <li>Company logo on main banner</li> <li>Circulation of Company Literature</li> <li>Announcement - Thanking sponsor</li> <li>Speaking Opportunity</li> <li>Table Space to display</li> <li>Invitation to the key person of the organisation as special invitee.</li> <li>Complimentary Advertisement in the Key Journal Published immediately after the event covering report of the event.</li> </ul>	<ul> <li>05 delegate passes for participation in the conference</li> <li>Company logo on main banner</li> <li>Circulation of Company Literature</li> <li>Announcement -Thanking sponsor</li> <li>Speaking Opportunity</li> <li>Invitation to the key person of the organisation as special invitee.</li> <li>Complimentary Advertisement in the Key Journal Published immediately after the event covering report of the event</li> </ul>	<ul> <li>03 delegate passes for participation in the conference</li> <li>Company logo on main Banner</li> <li>Announcement - Thanking sponsor</li> </ul>

#### #GST @18% (as per Reverse charge Mechanism)

#### **PAYMENTS**

The fee can be paid by cheque to be drawn in favour of "Committee for International Commission on Large Dams, India" or by bank transfer to the following account:

Bank Details for arranging Payment:

Name of Bank: Canara Bank, Delhi Diplomatic Enclave, 7/48, Malcha Marg, Chanakyapuri, New Delhi 110021

Account No. 0157101031509
 MICR Code No. 110015007

• Account Holder Name: "THE COMM FOR INCOLD"

• IFSC Code: CNRB0000157 • Swift Code: CNRBINBBDFS

After making the payment online in respect of the event, the details like UTR/Organization name to be furnished immediately.

#### **SECRETARIAT**

All correspondence relating to the training should be addressed to:

Shri A.K. Dinkar, Secretary, CBIP & Secretary General, INCOLD

Shri K.K. Singh, Director (WR), CBIP & Treasurer, INCOLD, E-mail: kksingh@cbip.org

C/o CBIP, Plot No. 4, Institutional Area, Malcha Marg, Chanakyapuri, New Delhi-110 021

Phone: 91-11-26115984 / 26116567; Website: www.incold.co.in

Contact Person: Shri Vishan Dutt, Advisor, CBIP, M: 9811431554, E-mail: vishandutt@cbip.org

Shri Puneet Khairal, INCOLD Secretariat, E-mail: contact@incold.co.in

Shri Manoj Kumar, INCOLD Secretariat, M: 7982104577, E-mail: manoj@cbip.org



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#### **REGISTRATION FORM**

(To be filled in block letters preferably typed)

Name of Participant			A Part of the Control	
	Surname)	(First Name)	(Prefix Prof./Dr./Mr./Mrs./Ms.)	
Designation:	Kell III			
Name of Organisation:				
Mailing Address:	15	9.00		
City	State			
Country	PIN			
Phone	Fax	E-mail		
Payment details:				
Bank Details for arranging Paymo	ent:		and the same of th	
Name of Bank: Canara Bank, De	hi Diplomatic En	clave, Malcha Marg, Chanak	yapuri, New Delhi 110021	
• Account No. 0157101031509	• Account I	Account Holder Name: "THE COMM FOR INCOLD"		
• MICR Code No. 110015007	• IFSC Co	de: CNRB0000157	Swift Code: CNRBINBBDFS	
Dated		Signature		
	Designation:  Name of Organisation:  Mailing Address:  City  Country  Phone  Payment details:  Bank Details for arranging Payme Name of Bank: Canara Bank, Del  • Account No. 0157101031509  • MICR Code No. 110015007	Designation:  Name of Organisation:  Mailing Address:  City  Country  Phone  Fax  Payment details:  Bank Details for arranging Payment:  Name of Bank: Canara Bank, Delhi Diplomatic End  • Account No. 0157101031509  • MICR Code No. 110015007  • IFSC Code	Designation:  Name of Organisation:  Mailing Address:  City	

Registration Form duly filled in, together with necessary payments to be mailed to: contact@incold.co.in

Contact Person: Shri Vishan Dutt, Adviser, CBIP, M: 9811431554, E-mail: vishandutt@cbip.org

Shri Puneet Khairal, INCOLD Secretariat, E-mail: <a href="mailto:contact@incold.co.in">contact@incold.co.in</a>

Shri Manoj Kumar, INCOLD Secretariat, M: 7982104577, E-mail: manoj@cbip.org

#### Note:

- Seats are limited. Participants are requested to register as soon as possible.
- Photocopies of the registration form can be used for additional requirements, if any.
- Spot registration facilities will also be available, provided the prior information is received.