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Wednesday, 8 April 2026 • IIT Delhi

Indo-French Climate Resilience Seminar

Focus on the Himalayan Region

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Program

8:30 — **Welcome tea/coffee**

9:00 — **Opening addresses**

Mrs. Nidhi Somani - *Senior Trade Advisor, Business France* - ***Moderator***
Mr. Florent Mangin - *Head of Regional Economic Service, French Embassy in India*
Dr. Nikhil Agarwal - *Managing Director, Foundation of Innovation & Technology Transfer (FITT), IIT Delhi*
Mr. Abid Hussain Sadiq - *Managing Director, Himachal Pradesh Power Company Limited (HPPCL)*
Mr. Pyush Dogra - *Senior Environmental Specialist, World Bank*
Mr. Jeremy Fain - *CEO, Blue Water Intelligence (BWI)*

9:30 — **Panel Discussion #1: Challenges and Opportunities of Himalayan Region Climate Resilience**

Dr. M. K. Sinha - *Former Chairman, Central Water Commission (CWC)* - ***Moderator***
Mr. Deepak Jasrotia - *Deputy Chief Engineer, Directorate of Energy, Government of Himachal Pradesh*
Mrs. Camille Séverac - *Deputy Director, French Agency for Development (AFD)*
Mr. Abid Hussain Sadiq - *Managing Director, Himachal Pradesh Power Company Limited (HPPCL)*
Dr. Vishwas Chitale - *Team Lead - Climate Resilience, Council on Energy, Environment and Water (CEEW)*
Dr. Nicolas Ziv - *Lead Specialist, Coalition for Disaster Resilient Infrastructure (CDRI)*

10:30 — **Break**

10:50 — **Panel Discussion #2: Flood Early Warning & Densification of Observation Systems**

Prof. A. K. Gosain - *Founder & Director, INRM Consultants* - ***Moderator***
Dr. Dharmendra Gill - *Engineer in Chief, Jal Shakti Vibhag*
Mrs. Sheena Arora - *Disaster Risk Management Specialist, World Bank*
Prof. Indu J - *Associate Professor, Department of Civil Engineering, IIT Bombay*
Dr. Neera Pradhan - *Cryosphere & Water Lead, International Centre for Integrated Mountain Development (ICIMOD)*
Colonel Sanjay Srivastava - *Chairman, Climate Resilient Observing-Systems Promotion Council (CROPC)*

11:50 — **Panel Discussion #3: Energy & Food Resilience in the Era of Climate Change Acceleration**

Prof. C. T. Dhanya - *Dean of Academics, IIT Delhi* - ***Moderator***
Dr. Ravinder Singh Jasrotia - *Director of Agriculture, Government of Himachal Pradesh*
Dr. S. V. Murugan - *COO, National Agro Foundation (NAF)*
Mr. Vijai Saran - *Director, International Commission on Irrigation & Drainage (ICID)*
Dr. Balamurugan M. - *Associate Director - Water, AECOM*
Dr. A. K. Jha - *Executive Vice President, Tractebel Engineering*

12:50 — **Closing remarks**

Ms. Thuy Dung Vu - *Marketing & Communications Manager, Blue Water Intelligence (BWI)* - ***Moderator***
Mr. Adityaa Mondkar - *Founder & Director, Agua Preciosa*
Mr. Shubhomoy Ray - *General Partner, InfraBlocks Capital*
Dr. Anil Khanal - *Hydrologist, Blue Water Intelligence (BWI)*

13:00 — **Networking lunch**

Concept Note
Indo-French Climate Resilience Seminar

The Himalayan Water-Energy Challenge

The Himalayan Mountain range is a vital water source for South and Southeast Asia, sustaining hundreds of millions and supporting India's energy transition. For instance, Himachal Pradesh alone holds over 27 GW of hydropower potential - nearly a quarter of India's total - and already generates more than 10 GW, making it a key strategic energy hub.

Yet this potential comes with growing operational uncertainty. River inflows in the region depend on a complex interplay of monsoon precipitation, snowmelt and glacier-fed systems, many of which remain partially ungauged. As climate change accelerates, intensifying extreme rainfall events disrupt seasonal snow patterns and increase the frequency of flash floods and landslides.

In a context of demographic surge in South Asia, which triggers pressure on electricity production and food security, the ability to monitor, anticipate and respond to hydrological variability is becoming paramount for both energy security and ecosystem resilience.

Why Climate Resilience Is Urgent

The consequences of the vulnerabilities triggered by global warming are already visible. The Himalayan region has experienced repeated episodes of floods, cloudbursts, GLOFs[1] and landslides in recent years, causing significant economic losses to infrastructure, agriculture and communities.

At the same time, hydropower operators face increasing uncertainty in reservoir management and production planning, as the hydrological regimes they were designed for continue to shift. Strengthening the climate resilience of communities and energy infrastructure is no longer a long-term ambition - it is an operational and a social necessity.

Addressing this challenge requires more than technical solutions. Building climate resilience calls for a structured dialogue between the institutions responsible for managing water, energy and disaster risk, the academic and scientific communities developing the operational tools to monitor and forecast hydrological systems, and the industry partners capable of translating innovation into operational reality.

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[1] Glacial Lake Outburst Floods

About the Indo-French Climate Resilience Seminar

It is in this context that Agua Preciosa, INRM Consultants, GCRS[2], Business France and BWI[3], are organizing the very first **Indo-French Climate Resilience Seminar - Focus on the Himalayan Region**, on Wednesday 8 April 2026 at the Research and Innovation Park, IIT[4] Delhi.

The Indo-French Climate Resilience Seminar – Focus on the Himalayan Region could not have happened without the financial support of ESA[5] and CNES[6] as part of Data4Water, a project funded by ESA's Business Applications and Space Solutions (BASS) program. We take this opportunity to thank these institutions for their decisive contribution to this gathering of actors engaged in climate resilience challenges.

The seminar brings together senior representatives from the Government of Himachal Pradesh, Indian and international academic and research institutions, project development partners, engineering companies, technology vendors, hardware manufacturers, bilateral and multilateral donors, subject matter experts and industry leaders for a structured, operational dialogue on key themes: **climate resilience, hydrological forecasting, flood early warning systems, water resource allocation strategies, river basin digitization, energy and agriculture resilience in Himalayan river basins.**

[2] Geo Climate Risk Solutions
[3] Blue Water Intelligence
[4] Indian Institute of Technology
[5] European Space Agency
[6] French Space Agency

About the Indo-French Climate Resilience Seminar

The program is structured around three thematic panel discussions:

Panel Discussion #1 – Challenges and Opportunities of Himalayan Climate Resilience
This session brings together government representatives from Himachal Pradesh and institutional partners to discuss climate risks affecting the Himalayan region, including extreme rainfall events, landslides, floods and their impacts on infrastructure, agriculture and water resources.

Panel Discussion #2 – Flood Early Warning & Densification of Observation Systems
This session brings together hydrologists, remote sensing experts and risk management practitioners from India, Nepal, Bangladesh, and the broader Himalayan region, as well as France, to explore technical approaches for strengthening flood forecasting systems, densifying hydrometeorological observation networks and improving basin-scale monitoring in mountainous environments.

Panel Discussion #3 – Energy & Food Resilience in the Era of Climate Change Acceleration
As climate variability intensifies across the Himalayan region along with fast-growing populations, both hydropower operations and agricultural systems face growing pressure to adapt. This session explores reservoir inflow forecasting, the integration of hydrological innovation into energy and irrigation operations, the adaptation of hydropower infrastructure and irrigation strategies to shifting hydrological regimes across South Asia, and the prospect of anticipating, planning and solving potential conflicts in the use of water resources between stakeholders with unaligned interests.

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By bringing together operational experiences from Europe and South Asia, the aim of this seminar is to foster concrete cooperation initiatives that combine hydrological innovation, remote sensing, Earth observation, engineering best practices and industrial expertise to secure Himalayan basins and support the regional energy transition.

BWI

Blue Water Intelligence is a French company founded in 2022 in Toulouse, specializing in hydrological forecasting. The company develops solutions to forecast river flows and, if conditions are reunited, water levels, worldwide, by combining satellite and in-situ data, hydrological modeling and artificial intelligence.

At the core of BWI's approach is the concept of "virtual stations" - digital measurement points that provide forecasts across river networks, including in areas where physical monitoring is limited or unavailable.

By integrating multiple data sources, and advanced modeling powered by machine learning and neural networks, BWI delivers scalable and consistent hydrological information across space and time, supporting a better understanding of water dynamics at basin scale.

BWI's solutions support public authorities and governments, hydropower operators, agriculture stakeholders, civil engineering companies, insurance corporations, and other organizations and private stakeholders in:

- anticipating floods,
- building hydrological knowledge,
- optimizing water resource management,
- supporting informed decision-making in a context of increasing climate variability.

Designed as the perfect complement to existing monitoring systems such as ground sensors, and to feed legacy information systems such as GIS[7] or SCADA[8], virtual stations enable rapid deployment, flexibility and reduced operational constraints, without the need for additional physical infrastructure.

BWI is also behind the REVALTO[9] space mission, a next-generation radar altimetry constellation aimed at improving the monitoring of inland water bodies through high-revisit surface water elevation measurements. Through its technologies, BWI contributes to strengthening water security, climate resilience, disaster preparedness and data-driven water management worldwide.

www.bwi.earth

[7] Geographic Information System
[8] Supervisory Control and Data Acquisition
[9] REVisiting ALTimetry hydrOlogy

Agua Preciosa

Agua Preciosa Enterprises LLP is a technology-driven company based in Mumbai, founded in 2024, that develops smart solutions for water, energy and environmental management. Combining advanced sensors, IoT systems and automation, Agua Preciosa helps industries, public operators and local authorities better monitor and optimize their water resources. The company supplies and integrates a wide range of equipment - including smart water meters, electromagnetic and ultrasonic flow meters, level and water quality sensors, weather stations and data acquisition systems - into end-to-end solutions covering smart water management, canal and irrigation monitoring, groundwater and water body monitoring, as well as water and effluent treatment.

Through its real-time data platforms and dashboards, Agua Preciosa enables faster and more informed decision-making, reduction of losses and operating costs, and improved environmental performance across a broad spectrum of sectors - from manufacturing and urban utilities to irrigation departments and local authorities.

Agua Preciosa and BWI jointly signed a MoU[10] in Mumbai in August 2025, combining BWI's satellite Earth observation and hydrological forecasting expertise with Agua Preciosa's in-situ sensing and IoT capabilities to develop integrated water monitoring and management solutions across India.

www.aguapreciosa.in

[10] Memorandum of Understanding

INRM Consultants

INRM Consultants Pvt. Ltd. is a leading consultancy company incubated at the IIT Delhi, specializing in water resources assessment & management, climate change, multi-hazard and climate risk and vulnerability assessment, and urban systems.

Leveraging the academic rigor of one of India's premier technical institutions alongside over two decades of applied experience, the company supports public sector agencies, development finance institutions, and private stakeholders in basin-scale planning, advanced hydrological modeling, environmental assessments, and the design of climate-resilient solutions for water, agriculture, and hydropower systems. INRM has developed a web-GIS based platform that provides pan-India daily flow and water balance forecasts up to a week in advance, utilizing India Meteorological Department forecasts integrated within digital twin frameworks for all major Indian river basins. Additionally, the company has designed and implemented flood forecasting and early warning systems for hydropower infrastructure in Himalayan river systems.

The company is led by Prof. A. K. Gosain, Former Professor, Department of Civil Engineering, IIT Delhi, who brings more than five decades of distinguished expertise in water resources engineering and allied domains. He has been instrumental in the development of innovative methodologies and decision-support systems and continues to contribute to national and international technical committees, facilitating the operationalization of NDCs[11] and SDGs[12] into measurable outcomes.

INRM and BWI have entered into a MoU to collaboratively develop hydrological forecasting systems, basin monitoring solutions, and climate risk management tools in India. This partnership aims to build on IIT Delhi's academic excellence to co-develop operational, scalable, and data-driven resilience solutions tailored for Himalayan River Basins, addressing emerging challenges related to climate variability and extreme events.

www.inrm.co.in

[11] Nationally Determined Contributions
[12] Sustainable Development Goals

GCRS

Founded in 2014, Geo Climate Risk Solutions Pvt. Ltd. is an Indian consulting and technology firm specializing in climate resilience, hydrometeorological risk management, water systems, environmental sustainability, and geospatial decision support. Led by Founder & CEO Prasad Babu, a geospatial and water resources expert with over 20 years of experience across academic, industry, and international development organisations, GCRS combines geospatial intelligence, satellite imagery, AI, and machine learning to deliver decision-ready solutions for governments, public institutions, and corporations.

GCRS has developed two flagship digital solutions: geosust® and LAMAS®. geosust® is GCRS's spatially integrated sustainability intelligence platform, designed to help organizations assess environmental conditions, identify risk hotspots, and support planning through advanced geospatial analytics and integrated data systems. LAMAS®[13] enables continuous monitoring and management of urban water bodies to improve water quality, reduce flood risk, and strengthen ecological resilience.

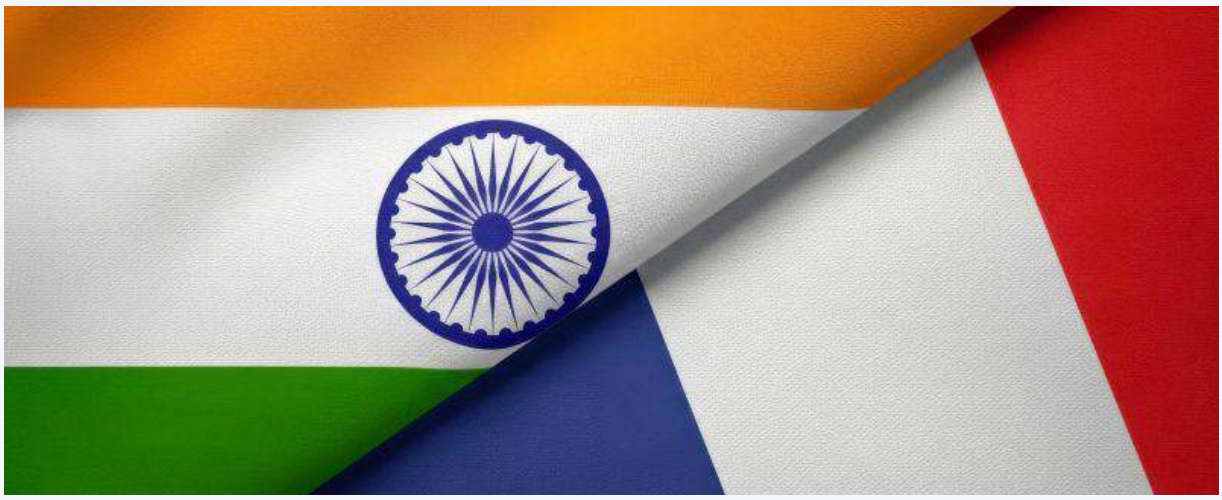
Beyond its technology platforms, GCRS supports clients with vulnerability assessments, early warning systems, climate adaptation planning, hydrometeorological risk analysis, environmental intelligence, and sustainability-focused decision support.

GCRS also collaborates with partners to deepen research, expand climate risk solutions, and co-develop practical, scalable frameworks for resilience. In September 2025, GCRS and BWI signed a MoU, reflecting this broader approach to advancing sustainable water resource management and disaster resilience in India.

www.gcrs.tech

[13] Lake Management System

Business France



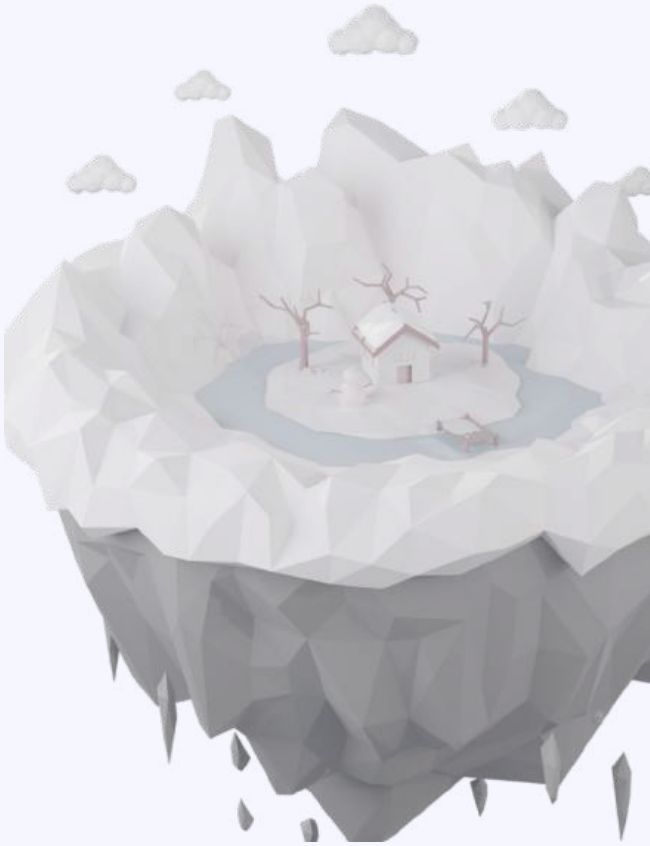
Business France is the French public consulting agency dedicated to the international development of the French economy. Created in 2015 following the merger of Ubifrance and AFII[14], it supports French companies in their export development, promotes France's economic attractiveness to foreign investors, and manages the V.I.E.[15] program. With more than 1,400 professionals, Business France operates covers nearly 100 markets worldwide through its own offices and a network of trusted partners.

In India, Business France is present through offices in New Delhi, Mumbai, Bengaluru and Chennai, with a local team of 26 professionals. The agency supports the international development of French companies at all stages of their market approach and contributes to strengthening IndoFrench economic, industrial and technological cooperation.

By co-organizing the Indo-French Climate Resilience Seminar with BWI and its long-term Indian partners, Business France acts as a bridge between Indian authorities, development finance institutions and industrial players, helping to structure concrete cooperation initiatives on climate resilience in Himalayan basins and hydropower systems - in line with its broader mission to deepen the Indo-French economic and technological partnership.

www.businessfrance.fr

[14] Invest in France Agency
[15] Volontariat International en Entreprise



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