

## Building the Resilience of the Clean Energy Sector Towards Imminent Physical Climatic Risks

**Date:** 10<sup>th</sup> December 2023

**Time and duration:** 16:00 to 17:30 hours (Gulf Standard Time time) | 1 hour and 30 minutes

**Location:** [Cryosphere Pavilion Side Event Room](#), OA14 F5 3rd Floor, Zone B6 Building 71, Blue zone, **Livestream:** <https://www.youtube.com/@iccinet>

**Contact:** Dr. Vishwas Chitale, CEEW: [Vishwas.chitale@ceew.in](mailto:Vishwas.chitale@ceew.in); +91-8860806692

**Objective:** Developing an integrated framework for climate proofing the clean energy sector towards chronic and acute physical climate risks.

**Expected outcomes:**

- Discussion on current and future chronic plus acute climate risks to the clean energy sector in developing countries.
- Defining what ‘climate resilience’ means for the clean energy sector in developing countries and pathways to achieve resilience.
- Discussions on technologies, tools and indicators that can be used to granularly map the climate risks and devise resilience strategies for the clean energy sector.
- Identification of opportunities to create a global platform for sharing knowledge and technology amongst global stakeholders to scale up the framework for climate resilience of the clean energy sector.

**Moderator:** Dr Vishwas Chitale, Senior Programme Lead, CEEW

**Panellists:**

1. Dr. Arun Bhakta Shrestha, Strategic Group Lead, ICIMOD
2. Ms Jinsun Lim, Energy and Environment Policy Analyst, IEA
3. Ms. Katie Jereza, VP-Corporate Affairs, EPRI

**Detailed agenda**

Duration	Activity	Description	Participants
5 mins	Faces of climate resilience	Screening of Faces of climate resilience- Award winning documentary	CEEW
10 mins	Context setting	Context-setting presentation on navigating Climate Risks in India's Clean Energy Landscape and strategies for Climate-Proofing	Dr Vishwas Chitale, CEEW
30 mins	Regional experiences in climate-proofing clean energy investments	<b>Open intervention by the panel members</b> for 7-8 mins each on the regional experiences and challenges the clean energy sector faces in the realm of climate risks, along with the imperative requirements for climate-proofing strategies.	Panel members

30 mins	Moderated discussion and open-house Q&A	Encouraging participants to share their insights and ideas through key questions on the approaches to assess and counter imminent physical climate risks: <ul style="list-style-type: none"> <li>• Main hazards that impact the clean energy sector</li> <li>• Strengthening climate models through knowledge sharing</li> <li>• Integrating climate risks into design standards of clean energy infrastructure</li> <li>• Adaptation and mitigation strategies for risk reduction</li> </ul>	Moderator and panellists
10 mins	Questions from audience	Discussion and Q & A from audience	
5 mins	Closing remarks	Summary of key messages and invitation to continue the efforts and dialogue.	Dr Vishwas Chitale, CEEW

**Guiding questions:**

**Dr Arun Bhakta Shrestha, ICIMOD**

- What are the evolving trends of risks and impacts due to climatic extremes in the Hindu Kush Himalaya? What threats does it create to the existing and upcoming infrastructure in the renewable sector?
- Climate projections, particularly for highly variable phenomena like precipitation over India and tropical regions, exhibit biases. The prevalent models are primarily sourced from global platforms such as the Intergovernmental Panel on Climate Change (IPCC) and subsequently downscaled regionally. To enhance the accuracy of these projections, what strategies can be employed through global collaborations between entities?
- In the scenario where we have successfully adapted to existing extreme events through climate-proofing infrastructures, the prospective challenge lies in chronic risks such as sustained declines in wind speeds, solar irradiation, and especially precipitation – which is now seen along the Indian Himalayan region due to climate change, potentially jeopardizing the viability of projects in the long run. How can we ensure a comprehensive approach to address these enduring climate risks? What would make institutions adopt climate-centric approaches to the estimation of potentials — which is not the case yet?

**Ms Jinsun Lim, IEA**

- How real is the climate risk to the clean energy infrastructure/investments across the globe? Do we see such patterns emerging and can you share some examples to help us set the context?
- In your perspective and experience, what are the key acute and chronic climatic hazards that have significantly impacted the clean energy sector in developing countries?
- What according to you defines climate resilience for the clean energy sector? and what are the ways to achieve it?

**Ms Katie Jereza, VP-Corporate Affairs, EPRI**

- What are some of the complexities of climatic risks impacting the renewable energy sector across the world?
- How should climate risks be systematically integrated into both existing and planned investments in clean energy? How can corporations and private developers be made to adopt climate-risk-informed approaches for investments through disclosures like TCFD?
- Estimates suggest that USD 4 trillion in investments annually in clean energy technology are needed till 2030 to achieve net-zero by 2050. The imperative to integrate climate resilience adds another layer, necessitating increased financial flow. How can the scale of adaptation finance be amplified to effectively mitigate risks and ensure the resilience of clean energy infrastructure projects?

**Speaker's bios:**

**Moderator**

**Dr Vishwas Chitale**, Senior Programme Lead, Council on Energy, Environment and Water (CEEW)



He leads the Climate Resilience team at the Council. His work focuses on assessing risks and building resilience. He has over 15 years of experience in developing and implementing digital solutions for climate change risk reduction and resilience building in various Asian countries. Before joining CEEW, he was leading the Artificial Intelligence program at the German Development Cooperation (GIZ) in New Delhi, where he worked on 'Artificial Intelligence for Climate Action' in collaboration with NITI Aayog. Vishwas previously worked at the International Centre for Integrated Mountain Development (ICIMOD) in Kathmandu, Nepal, for eight years. He was also a member of the NITI Aayog's working group on the 'Indian Himalayan Region', which focused on current gaps and challenges in 'Data and information for informed decision making'.

**Panellists:**

**Ms. Jinsun Lim**, Energy and Environment Policy Analyst, International Energy Agency (IEA)



She leads the IEA work on climate resilience for energy security. She is working on assessing climate risks and impacts on energy systems; identifying effective resilience measures for different stakeholders; and developing policy recommendations for decision-makers. Prior to joining the IEA, she worked at IRENA and SEforALL and served as a climate negotiator representing the Republic of Korea.

**Dr. Arun Bhakta Shrestha**, Strategic Group Lead, Reducing Climate and Environmental Risk, International Centre for Integrated Mountain Development (ICIMOD)



Dr Arun Bhakta Shrestha, a Senior Climate Change Specialist and Strategic Group Lead -Reducing Climate and Environmental Risks. He holds a PhD in Earth Sciences from the University of New Hampshire, USA and a Master's degree in Hydraulic Engineering from Minsk, former USSR. Formerly with Nepal's Department of Hydrology and Meteorology, his knowledge area encompasses climate change, glaciers, glacial hazards, and atmospheric environments. Dr Shrestha serves as an editor for *Advances in Climate Change Research* (Elsevier) and Review Editor for *Cryosphere Sciences* (Frontiers in Earth Sciences). He's a one of the editors to the Hindu Kush Himalaya Assessment and a Coordinating Lead Author for its climate change chapter.

**Katie Jereza**, Vice President of Corporate Affairs, Electric Power Research Institute (EPRI)



Katie Jereza is Corporate Vice President (CVP) of Corporate Affairs at EPRI, an independent, nonprofit energy research institute. Through global research collaborations, EPRI is shaping an energy future that is reliable, resilient, and affordable. At EPRI Katie leads external engagements, communications, media relations, and government capture. With more than 30 years' experience, her strategic approach helps policymakers and other energy stakeholders align science-based solutions with clear public benefit to energy transition challenges. Katie has served as Deputy Assistant Secretary at the U.S. Department of Energy's (DOE) Office of Electricity, where she led agency efforts to accelerate transmission permitting and provide technical assistance to state governments. She has also served as Director of Infrastructure Resilience at Edison Electric Institute (EEI). Katie holds a B.S. in Chemical Engineering from Virginia Polytechnic Institute and State University, and an MBA from Loyola University Maryland.