

Clean Cooling for All: Technology Cooperation lessons, Challenges and Opportunities for Clean Cooling Transition COP28 | Montreal Protocol Pavilion | 8th Dec 2023

Future Refrigeration India: INDEE+ (India-Norway Collaboration 2021-2024)

There is spotlight on cooling at COP28 for a good reason: Cooling applications contribute about 7 percent to the global greenhouse gas (GHG) emissions, and the rising demand and use of BAU cooling technologies, the share will rise to 20 percent of GHG emissions by 2050. By switching to clean cooling technologies, the emissions from cooling will decrease significantly, as well as increase opportunities to provide access to affordable and sustainable cooling solutions to all.

Clean cooling technology options are available — just not accessible or affordable everywhere, especially within low-income countries in the Global South. The oncoming high demand for cooling in the coming years from markets like India makes it imperative that new cooling technologies are introduced in appropriate places. This will prepare the ecosystem for commercial deployment of technology in the short run, and in the long run help countries meet key international commitments such as the Kigali Amendment to Montreal Protocol and Paris Agreement on Climate Change.

Bilateral and multilateral technology cooperation becomes critical to accelerate transition to sustainable and clean cooling. In this context, **Future Refrigeration India (INDEE+)** is an Indian Norwegian bilateral environmental cooperation project that aims to demonstrate eco-friendly cooling systems applying natural refrigerants (such as: ammonia (NH₃), carbon dioxide (CO₂), and hydrocarbons) to promote a clean, sustainable, and reliable heating and cooling solutions for the future heating, ventilation, Air-Conditioning and refrigeration (HVAC&R) sector in India.

This side event will use the opportunity to inform and showcase the progress made under the INDEE+ project, plans to expand the programme, challenges faced in demonstration projects and lessons learnt for further deployment. It will convene the leading practitioners and researchers in sustainable cooling to understand how bilateral cooperation and collaborative R&D, knowledge transfer, technology development and deployment can be achieved to enable access to **clean cooling system solutions for all**.

Tentative agenda:

Time	Agenda Items	Speakers
15:15-15:30	Welcome and INDEE+ briefing presentation	Yosr Allouche & Kristina N. Widell (INDEE+ Team)
15:30-16:00	<p>Panel discussion: Challenges and opportunities: Technology cooperation for sustainable and clean cooling for all</p> <ul style="list-style-type: none"> Technology options and the advantages of leapfrogging to natural refrigerants Potential of North-South technology cooperation in widening the availability of clean cooling systems in emerging economies and the role of industry Barriers for participation from private players and how can think tanks and public policy encourage partnerships Public-private financing arrangements for broad introduction of clean cooling solutions 	<p><u>Panellists (This is only tentative):</u></p> <ol style="list-style-type: none"> Yosr Allouche, Director General (10/2024), IIR Petter Neksa, Chief Scientist, SINTEF Kristina N. Widell, Senior Research Scientist, SINTEF Andrea Voigt, Vice President, Danfoss Himanshu Dixit, Programme Associate, CEEW <p>++</p>
16:00-16:15	Question and Answer session	