MAINSTREAMING SUSTAINABILITY

Year in Review
2021-22
"Institutions are like trees. They need vision and nurturing, but the best ones stand on their own, resilient, independent and always reaching higher than the day before. CEEW is an institution."

**CEEW at a Glance**

**Impacting Sustainable Development at Scale**

**TRANSFORMATIONS**
- Low-carbon Economy
- Energy Transitions
- Power Markets
- Industrial Sustainability
- Sustainable Livelihoods

**QUALITY OF LIFE**
- Clean Air
- Sustainable Water
- Sustainable Food Systems
- Sustainable Cooling
- Sustainable Mobility

**ENABLERS**
- Sustainable Finance
- Technology Futures
- Circular Economy
- Climate Resilience
- International Cooperation

**CEEW TALISMAN**
- Fight ignorance
- Stay true
- Raise the bar

**VALUES**
- Integrated
- International
- Independent

**SPECIAL INITIATIVES**
- CEEW Centre for Energy Finance
- Powering Livelihoods

---

**200+ Multidisciplinary team**

**22+ States engaged**

**380+ Partners**

CEEW’s growth as a recognised and ranked public policy research institution owes much to the trust, collaboration and contribution of our partners from across sectors and geographies since our inception in 2010. Our deep gratitude and many thanks to peerless organisations, institutions and individuals who have enabled and empowered us to stay true to our purpose.

---

The cover illustration is part of a bespoke mural at the CEEW office. It reimagines sustainability as a way of being.
“CEEW has enabled India’s leadership in sustainable cooling innovations that could help maximise economic gains.”

SHRI BHUPENDER YADAV

“The MoU with CEEW-Villgro is a significant step forward for Uttar Pradesh towards women’s empowerment, ensuring energy efficiency, and increasing incomes of people in the state.”

SHRI KESHAV PRASAD MAURYA

L to R from top

R. K. SINGH, Minister of Power, and New and Renewable Energy, Government of India (GoI), at the event, New Frontiers – India’s Citizen-Centric Energy Transition, held to felicitate Indian cities and organisations that have submitted their UN Energy Compacts with CEEW as the knowledge partner, 16 February 2022.

BHUPENDER YADAV, Minister of Environment, Forest and Climate Change (MoEFCC), and Labour & Employment, GoI, at the CEEW-SHEETAL national dialogue, How can India Lead a Sustainable Cooling Transition? 13 May 2022.

BHAGWANT KHUBA, Minister of State for New and Renewable Energy, and Chemicals and Fertilizers, GoI, at the event, New Frontiers – India’s Citizen-Centric Energy Transition, held to felicitate Indian cities and organisations that have submitted their UN Energy Compacts with CEEW as the knowledge partner, 16 February 2022.

ASHOK GEHALOT, Chief Minister of Rajasthan, at the webinar on CEEW’s study on scaling sustainable agriculture in Rajasthan, during the 3rd meeting of the Chief Minister Rajasthan Economic Transformation Advisory Council (CMRETAC), 05 March 2022.


KESHA V PRASAD MAURYA, Deputy Chief Minister of Uttar Pradesh, at the UPSRLM-Prerna Ojas-CEEW MoU signing event with CEEW and Villgro, 06 July 2021.

STEFAN LöFVEN, former Prime Minister of Sweden, at a virtual CEEW briefing on the UN High-Level Advisory Board on Effective Multilateralism, 02 June 2022.

BAN Ki-MOON, former Secretary General, UN, at the CEEW-Asia Society Policy Institute roundtable, Exploring Synergies between Asian Countries in Pursuit of Net-Zero Asia - An Indian Perspective, 25 August 2022.

INGER ANDERSEN, Under-Secretary-General, UN, and Executive Director, UNEP, at a Stockholm+50 event moderated by CEEW and Stockholm Environment Institute (SEI) during COP26 at the Nordic Pavilion, 10 November 2022.

OV AIS SARMAD, Deputy Executive Secretary, UN Climate Change Secretariat, at the announcement of the UNFCCC-CEEW strategic partnership to develop a framework to enhance the capacity of developing countries to report on climate change, 21 March 2022.

NITIN DESAI, former Under-Secretary-General for Economic and Social Affairs, UN, at the CEEW-Asia Society Policy Institute roundtable, Exploring Synergies between Asian Countries in Pursuit of Net Zero Asia - An Indian Perspective, 25 August 2022.

LEENA NANDAN, Secretary, MoEFCC, GoI, at the CEEW-SHEETAL national dialogue, How can India Lead a Sustainable Cooling Transition? 13 May 2022.


“We welcome our collaboration with CEEW to help developing country parties identify their capacity needs as well as access support opportunities to enhance and submit their biennial transparency reports.”

OV AIS SARMAD
With CEEW as a knowledge partner for the implementation of the Revamped Distribution Sector Scheme (RDSS), we can build capacities within REC Ltd and discoms to undertake evidence-based research to help improve discom performance and bring down their financial losses.

R. LAKSHMANAN
How do you build a world for tomorrow?
You shape it today.

2022 was the year that changed everything. A war in one region created an energy crisis for all, but there was also a conflict about growth versus sustainability in all major economies. In 2022, the urgent and the important melded into one.

As India sits firmly in the driver's seat of the G20 in 2023, it's time to showcase why we can be the voice for the Global South. And CEEW, as a strategic partner to several government ministries for the G20 Presidency, is shaping and mainstreaming ambitious roadmaps to a sustainable future. Whether it is informing the national green hydrogen mission, mobilising finance for India’s net-zero transition, scaling sustainable agriculture, creating plans to revamp the power sector, creating a circular economy for renewables, or situating people at the centre of climate policies and action. Our team of 200+ professionals is not just thinking about the here and now, but also acting to shape the future we want.

CEEW’s work spreads across the global, national, sub-national, and local levels – India’s cities and villages. Our calculations and collaborations spread upwards into other countries, setting a global agenda at the Stockholm+50 summit and through our work in other emerging economies. Our analysis and actions also spread downwards in supporting 22 state governments within India with their plans for sustainability.

Last year, we also opened the doors to our new offices in Delhi and Lucknow, with our principles built into the foundations of the buildings – integrated, international, and independent. From recycled furniture and upcycled material to biodegradable flooring and energy-efficient lighting, every corner has a sustainability story to tell. It ties into Mission LiFE (Lifestyle for Environment), an India-led global people’s movement to nudge individual behaviours and enable markets to redefine our aspirations for a sustainable future. And CEEW has played an integral part in devising the economic framework for sustainable lifestyles.

We cannot fix the planet on which we live, without fixing how we live. Can we be a brave new world again? India has already set the ball rolling with its climate leadership. And CEEW is proud to be a strategic partner in that journey, at home and in the world.
MOVING THE NEEDLE NATIONALLY

Informing the National Green Hydrogen Mission
Supporting India’s Sustainable Cooling Goals
Mainstreaming Decentralised Renewable Energy Technologies for Livelihoods
Scaling-up Sustainable Agriculture
Revamping the Power Distribution Sector
Shaping India’s Circular Economy for Solar Waste
Making Climate Information People-centric
Mobilising Finance for India’s Net-Zero Transition

Informing the National Green Hydrogen Mission

CEEW provided technical advice to the Ministry of New and Renewable Energy (MNRE), GoI, in developing the National Green Hydrogen Mission. We provided inputs on the sizing of electrolysers, developed water consumption estimates for green hydrogen projects, the impact of green hydrogen blending on the prices of CNG and PNG, refinery products and fertiliser units, and gap assessment of hydrogen safety standards in India. We continue to advise multiple stakeholders on the governance, production and end-use of green hydrogen.

INR ~400 billion can be saved by offsetting 68% natural gas imports, if India achieves the target of 5 MTPA green hydrogen production by 2030
Source: CEEW analysis
Supporting India’s Sustainable Cooling Plans

How can India Lead a Sustainable Cooling Transition?

CEEW organised a national dialogue, *How can India Lead a Sustainable Cooling Transition?* as part of the SHEETAL consortium, May 2022. It brought together key stakeholders in the Heating, Ventilation and Air Conditioning (HVAC) sector from the government, industry, and academia. The experts underscored the need for enhanced implementation and accountability under the India Cooling Action Plan (ICAP), the first such official plan on sustainable cooling in the world, co-authored by the Ministry of Environment, Forest and Climate Change (MoEFCC), GoI, CEEW, and other partners.

“*If we align our goals under the ICAP with the larger goals of our COP26 announcements, we can have a stronger, more integrated approach to meet our climate commitments.*”

LEENA NANDAN, Secretary, MoEFCC, GoI at the CEEW-SHEETAL national dialogue, *How can India Lead a Sustainable Cooling Transition?* 13 May 2022.

CEEW has signed an MoU with the Refrigeration & Air-conditioning Trades Association (RATA) to build capacity and market readiness of MSMEs operating in India’s HVAC sector, October 2021; an MoU with the Indian Society of Heating, Refrigerating and Air Conditioning Engineers (ISHRAE) to galvanise efforts towards deployment of sustainable cooling technologies and practices, December 2021.

HVAC INNOVATIONS DASHBOARD NOW LIVE!

CEEW has developed India’s first HVAC Innovation Dashboard that showcases over 150 innovations in the sector. The dashboard aims to encourage collaborative research and development (R&D) among different stakeholders.

Explore the dashboard here: [https://www.ceew.in/cooling-dashboard](https://www.ceew.in/cooling-dashboard)
Mainstreaming Decentralised RE Technologies for Livelihoods

CEEW’s research and experience of rolling out ‘Powering Livelihoods’ (PL), a joint initiative with Villgro, contributed to drafting the policy framework released by MNRE to promote decentralised renewable energy (DRE) for livelihood applications.

>USD 50 billion
the market potential for DRE-based livelihood solutions in India

“The DRE policy for livelihood applications focuses on scaling field-tested solutions and promoting new and innovative solutions to power micro-entrepreneurship and productivity in rural India. CEEW’s range of work on DRE applications and their support in formulating the policy is appreciable.”

JEJVAKUMAR JETHANI, Senior Director/Scientist-F, MNRE, GoI

Impact of the Powering Livelihoods Initiative

- 77.2% women out of 13,669 end-users
- 9,106 deployments of PL-supported technologies
- 2.7x increase in cumulative revenues of targeted microenterprises

Source: CEEW-Villgro analysis (as of August 2022)

“UNDP’s efforts to support communities across the globe to advance the transition to a zero-carbon future are closely aligned with the Powering Livelihoods programme.”

ACHIM STEINER, Administrator, United Nations Development Programme, and Vice-Chair, UN Sustainable Development Group, at the CEEW-Villgro webinar, Powering Livelihoods in the Global South: Energy Transition for Citizen-centric Development, 04 October 2021.

“UNDP’s efforts to support communities across the globe to advance the transition to a zero-carbon future are closely aligned with the Powering Livelihoods programme.”

ACHIM STEINER, Administrator, United Nations Development Programme, and Vice-Chair, UN Sustainable Development Group, at the CEEW-Villgro webinar, Powering Livelihoods in the Global South: Energy Transition for Citizen-centric Development, 04 October 2021.

“UNDP’s efforts to support communities across the globe to advance the transition to a zero-carbon future are closely aligned with the Powering Livelihoods programme.”

ACHIM STEINER, Administrator, United Nations Development Programme, and Vice-Chair, UN Sustainable Development Group, at the CEEW-Villgro webinar, Powering Livelihoods in the Global South: Energy Transition for Citizen-centric Development, 04 October 2021.

“The PL programme’s technical assistance and networks have helped boost milk production and storage for our group through solar refrigerators. They prevent milk spoilage during the summers when temperatures peak. Increased shelf life of our products gives us more bargaining power.”

MEERA JAJT, Chairperson, Maitree Mahila Dairy & Agriculture Company Limited, Rajasthan, and a Powering Livelihoods end-user.

“The PL programme’s technical assistance and networks have helped boost milk production and storage for our group through solar refrigerators. They prevent milk spoilage during the summers when temperatures peak. Increased shelf life of our products gives us more bargaining power.”

MEERA JAJT, Chairperson, Maitree Mahila Dairy & Agriculture Company Limited, Rajasthan, and a Powering Livelihoods end-user.
Scaling-up Sustainable Agriculture

CEEW co-developed the draft policy, Accelerating the Growth of Rainfed Agriculture - Integrated Farmers Livelihood Approach, with the National Rainfed Agriculture Authority (NRAA), Ministry of Agriculture & Farmer Welfare, GoI. The draft policy was released for public consultation in July 2022.

The policy draft for accelerating development of rainfed agriculture drives four essential paradigm shifts.

- Make sustainable agriculture core in rainfed areas
- Promote bio economy-based models
- Redistribute production pressures within food systems
- Embed nutrition goals into rainfed agriculture

Revamping the Power Distribution Sector

CEEW has an MoU with REC Ltd to collaborate on activities to improve the operational and financial sustainability of distribution companies (discoms). We will strengthen the power distribution networks and improve quality of service for electricity consumers across India through the deployment of smart meters.

Under this partnership, CEEW is conducting primary and secondary research to help discoms in their efforts to deploy smart meters. CEEW’s research will also help leverage smart metering infrastructure for improved service delivery and ensure a positive consumer experience.

(Sunil Mani, Programme Lead, CEEW; Vivek Chhatre, Chief Manager, REC Ltd; R. K. Gupta, Chief General Manager (Technical), REC Ltd; A. K. Prateek Aggarwal, Programme Lead, CEEW; Praveen Shandal Pradhan, Programme Associate, CEEW; Abhishek Jain, Fellow and Director - Powering Livelihoods, CEEW; Apoorve Khandelwal, Senior Programme Lead, CEEW; Shaloo Agarwal, former Senior Technical Consultant (Agriculture and Horticulture), NRAA; Jaimishra Agarwal, Senior Programme Lead, CEEW; Shaluna Pradhan, Programme Lead, CEEW; Babita Singh, former Senior Technical Consultant (Agriculture and Horticulture), NRAA; Arunabha Ghosh, CEO, CEEW; Dishan Anand, Senior Programme Lead, CEEW; Prateek Aggarwal, Programme Lead, CEEW; CEEW’s Karthik Ganesan was appointed to the Expert Committee overseeing selection of applications and overall monitoring of PowertoHack 2020, a hackathon launched by the Ministry of Power to find technology-driven solutions to solve the complex problems in power distribution and ensure quality and reliable power supply, March 2020; CEEW’s Vaibhav Chatubvedi was invited to join the MoFCC Task Force 4 on Power Sector Decarbonisation within the ambit of India’s Long-Term Low-Carbon Development Strategy, April 2021.

(L to R) SHANAL PRADHAN, Programme Associate, CEEW; ABHISHEK JAIN, Fellow and Director - Powering Livelihoods, CEEW; APOORVE KHANDELWAL, Senior Programme Lead, CEEW; ASHOK DALWAI, CEO, NRAA; JAI MISHRA, Adviser, NITI Aayog; R. RATHI, Technical Expert (Water Management), NRAA; BABITA SINGH, former Senior Technical Consultant (Agriculture and Horticulture), NRAA.

(L to R) SUNIT MANI, Programme Lead, CEEW; VIVEK CHHATRE, Chief Manager, REC Ltd; R. K. GUPTA, Chief General Manager (Technical), REC Ltd; R. LAKSHMANAN, then Executive Director, REC Ltd; ARUNBHAGI GHOSHI, CEEW; SHAH, AGRAWAL, Senior Programme Lead, CEEW; CEEW; PRATEEK AGGARWAL, Programme Lead, CEEW; CEEW, at the MoU signing, 07 July 2022.

(L to R) CEEW’s HARSHA V. RAO, DISHA AGARWAL, PRATEEK AGGARWAL, DHUSVAK AGGARWAL, VAIBHAV PRATAP SINGH, and TARUN MEHTA at the NTPC Dadri power plant exploring thermal power plant operations and management, 12 April 2022.

#CEEW Pride
Shaping India’s Circular Economy for Solar Waste

CEEW has been appointed as the Knowledge Partner by MNRE to support a circular economy in solar in India. This includes assistance over e-waste management rules, solar photovoltaic (PV) waste estimation, and an R&D ecosystem for recycling technologies.

Mobilising Finance for India’s Net-Zero Transition

Having informed India’s net zero goal of 2070, CEEW has been at the forefront of facilitating India’s transition by estimating investments and derisking sustainable finance.

CEEW-Centre for Energy Finance’s first-of-its-kind study estimated that India’s power, industrial, and transport sectors would need investments of USD 10.1 trillion for the nation to achieve net-zero by 2070.

USD 8.4 trillion worth of investment needed by India’s power sector alone to achieve net zero

USD 1.5 trillion needs to be invested in green hydrogen production capacity to decarbonise India’s industrial sector

All data points: CEEW analysis

SUPPORTING CENTRAL MINISTRIES

CEEW’s recommendation for a closed-bidding mechanism procurement for new wind capacity to help India achieve 145GW of wind capacity by 2030 was accepted and announced by the MNRE, April 2022.

CEEW’s assessment of the socio-economic benefits of the New National Biogas and Organic Manure Programme (NNBOMP), and the Programme on Energy from Urban, Industrial, Agricultural Wastes/Residues and Municipal Solid Waste (150-160 for the MNRE led to budgetary approvals from the Ministry of Finance to continue with the central subsidy support to these schemes, July 2022.

CEEW’s ABUNABIA GHOSH was appointed member of the Advisory Group for the G20 Finance Track Agenda for India’s 2023 G20 Presidency, January 2022.

CEEW-CEW’s ARJUN DUTT was a special invitee as a sector expert to the Taxonomy Working Group, September 2021. This task force on sustainable finance was constituted by the Ministry of Finance and co-chaired by NITI Aayog and MoEFCC.
### Making Climate Information People-Centric

**Key speakers and panellists with the CEEW team at the CEEW-IMD national dialogue, How can India Make Climate Information People-Centric? 30 August 2022.**

CEEW and the India Meteorological Department (IMD) organised the national dialogue, *How can India Make Climate Information People-Centric?* in August 2022. The dialogue brought together key stakeholders, including central agencies such as the National Disaster Management Authority (NDMA), State Disaster Management Authorities, and meteorological agencies, to improve impact-based forecasting and end-to-end information dissemination to vulnerable communities through a comprehensive Multi-Hazard Early Warning System (MHEWS) at the national and sub-national levels.

**27/35 states and UTs** in India are highly vulnerable to extreme hydro-met disasters and their compounded impacts

> **80%**

of India’s population lives in districts highly vulnerable to extreme hydro-met disasters

* as per 2011 Census

All data points: CEEW analysis

“I congratulate CEEW for taking this important and timely initiative to help connect people with multi-hazard early warning systems.”

**DR MRUTYUNJAY MOHAPATRA,** Director General of Meteorology, IMD at the CEEW-IMD national dialogue, *How can India Make Climate Information People-Centric?* 30 August 2022.

CEEW became the first Indian think-tank to sign an MoU with the Coalition for Disaster Resilient Infrastructure (CDRI), in July 2022.

**AMIT PROTHI,** Director General, CDRI (L) and **ARUNABHA GHOSH,** CEO, CEEW, at the MoU signing event, 12 July 2022.

CEEW’s **NITIN BASSI** (L) presenting on water management and climate action in cities at the City Climate Alliance Partners Consultation for CITIIS 2.0, organised by National Institute of Urban Affairs, 04 August 2022.

Images: CEEW

Lok Sabha questions related to India’s preparedness on climate change and the nation’s vulnerability were tabled at the Winter Session of Parliament (Lok Sabha Question. Diary No. 86 for answer on 29.11.2021 reg. Climate Vulnerability Index) based on CEEW’s first-of-its-kind study, *Mapping India’s Climate Vulnerabilities: A District Level Assessment.*
Informing Solar Policies of Jharkhand and Uttarakhand
Enabling Low-carbon Transitions in Bihar, Maharashtra and Rajasthan
Improving Capacities to Enable Power Reforms and Sustainable Livelihoods in Uttar Pradesh
Strengthening Regional Air Quality Management in Uttar Pradesh and Punjab
Supporting Green Hydrogen Policies of Rajasthan and Gujarat
Scaling-Up Natural Farming in Rajasthan
Building Climate Resilience in Maharashtra and Uttarakhand
Enabling Sustainable Mobility in Uttar Pradesh and Kerala

CEEW helped formulate the Jharkhand State Solar Policy for 2022-27 in consultation with the Jharkhand Renewable Energy Development Agency (JREDA). The policy targets to achieve 4,000 MW of solar capacity across a diverse set of applications – enabling ease of doing business, promoting efficient technologies, creating enabling infrastructure, promoting innovation and locally relevant business models, and equipping implementing agencies and technical institutions to become best in class. CEEW will continue to work with JREDA as a policy implementation partner for the next two years.

Informing Solar Policies of Jharkhand and Uttarakhand

Jharkhand

(Left to right) Arunabha Ghosh, CEO, CEEW; Avinash Kumar, Principal Secretary – Department of Energy, Government of Jharkhand; Hemant Soren, Chief Minister of Jharkhand; Vinay Kumar Gohil, Director, Jharkhand Renewable Energy Development Agency (JREDA) and Jharkhand Bijli Vitran Nigam Limited (JBVNL), at the launch of the Jharkhand Solar Policy in Ranchi, 05 July 2022.

Uttarakhand

(Left to right) Disha Agarwal, Neeraj Kuldeep, and Bhawna Tyagi (all in the left row) conducting bilateral meetings with the officials of the Uttarakhand Renewable Energy Development Agency (UREDA) and other key actors to inform Uttarakhand’s State Solar Policy.

CEEW's Disha Agarwal at the launch of the Jharkhand Solar Policy in Ranchi, 05 July 2022.

CEEW's Disha Agarwal at the launch of the Uttarakhand Solar Policy.

05 July 2022.
Enabling Low-carbon Transitions in Bihar, Maharashtra and Rajasthan

Bihar

CEEW, UNEP India and other partners are working together with the Government of Bihar to develop its climate-resilient, low-carbon development strategy. As part of the project ‘Strategy for a Climate Resilient and Low-Carbon Development Pathway for Bihar’, CEEW is modelling low-carbon transition and design strategies for mitigation in the state.

Rajasthan

CEEW has an MoU with Rajasthan Renewable Energy Corporation Limited (RRECL) to draft Rajasthan’s Energy Policy 2050. In consultation with the Government of Rajasthan (GoR), experts and other relevant stakeholders, CEEW will define the broader vision for Rajasthan’s energy sector, aligning it with the state’s economic growth prospects for 2050.

Supporting Green Hydrogen Policies of Rajasthan and Gujarat

Rajasthan

CEEW has an MoU with the Rajasthan Renewable Energy Corporation Limited (RRECL) to develop and implement their State Policy on Green Hydrogen.

In Rajasthan, CEEW will also assess macro-level benefits of renewable energy, its job creation potential and develop long-term sectoral transition pathways to inform the state-level Urja Niti (energy policy).

USD ~100 billion investment needed to achieve India’s 2030 hydrogen production target of 5 MTPA

Source: CEEW analysis

CEEW’s DEEPAK TADAV presented pathways to realise Rajasthan’s potential for scaling up green hydrogen production to RRECL, 26 June 2022.

CEEW’s HEMANT MALLYA (L) at a meeting with RRECL, 26 June 2022.
CEEW signed an MoU with the Uttar Pradesh State Rural Livelihood Mission (UPSRLM) to support capacity building, market research, and draft strategies to deploy DRE-based livelihoods among rural communities across the state. CEEW is also extending technical and implementation support for the Vidyut Sakhi initiative of the government to ensure improved revenue recovery by discoms in rural areas while enhancing income/livelihood opportunities for rural women.

“"We are thrilled to be joining hands with CEEW-Villgro and Prerna Ojas in promoting DRE-powered livelihoods for people living in UP’s rural areas. We are also keen to receive support from CEEW for our Vidyut Sakhi initiative.”

BHANU GOSWAMI, then Managing Director, UPSRLM at the MoU signing ceremony, 06 July 2022
Strengthening Regional Air Quality Management in Uttar Pradesh and Punjab

Uttar Pradesh

CEEW signed an MoU with the Department of Environment, Forest and Climate Change (DoEF&CC), Government of UP, in October 2022, in the presence of MANOJ SINGH, Additional Chief Secretary, and ASHISH TIWARI (2nd from right), Secretary, DoEF&CC. The objective of the collaboration is to strengthen clean air planning and implementation in Uttar Pradesh to improve the state’s air quality.

CEEW collaborated with Kanpur Nagar Nigam (KNN) to support implementation of their clean air plan. We provided technical assistance, created local evidence for prioritising action, assessed impact of implemented measures. We also conducted awareness workshops for schools and construction companies in Kanpur.

Punjab

CEEW’s SRISH PRAKASH (C) conducted group discussions on farmers’ perspectives on stubble burning and associated air pollution, 21 October 2021.

CEEW’s PRIY ANKA SINGH conducting a training session on field reconnaissance survey protocol to build hyperlocal databases that capture pollution emission sources, 17 November 2021.

CEEW’s TANUSHREE GANGULY, at CEEW-ASAR workshop, Punjab Townhall: Pollution Da Solution as part of the Cleaner Air and Better Health Project, supported by the United States Agency for International Development (USAID), 07 July 2022.

CEEW’s KURINJI SELVARAJ was appointed to an expert panel constituted by the Commission for Air Quality Management (CAQM) in NCR and adjoining areas. The expert panel formulated a long-term policy for improving air quality in Delhi NCR.
Scaling-up Natural Farming in Rajasthan and Andhra Pradesh

**Rajasthan**
CEEW was part of the Chief Minister’s Rajasthan Economic Transformation Advisory Council (CMRETAC) to develop a policy action plan to scale-up natural farming in the state. CEEW’s recommendations directly led to the FY2022-23 budget announcement of the INR 600 crore Rajasthan Organic Farming Mission, which will impact 400,000 farmers.

CEEW’s analysis in Rajasthan was informed through discussions and meetings covering 100+ Government officials, 10 State-level departments, 20 District-level departments, and 22 Non-governmental organisations.

CEEW researchers at a focus group discussion with local farmers on sustainable and regenerative agriculture in the Sri Sathyasai district of Andhra Pradesh, May 2022.

Andhra Pradesh

Building Climate Resilience in Maharashtra and Uttarakhand

**Uttarakhand**
“This workshop by CEEW- Uttarakhand State Disaster Management Authority (USDMA) and Social Development for Communities Foundation (SDC) is timely and shows us the need to integrate national, sub-national and city level disaster preparedness.”

SUNIL UNIYAL GAMA, Mayor, Dehradun at the CEEW-USDMA-SDC workshop, How Can We Make Uttarakhand Climate Resilient? 15 June 2022.

“Early warning systems have to be strengthened and this can help save lives, livelihoods and avert loss and damage across sectors. Urban Local Bodies and Panchayats should also have robust alert mechanisms and should remain prepared to deal with climate disasters round the year.”

DR PIYOOSH RAUTELA, Executive Director, Disaster Mitigation and Management Centre (DMMC), and USDMA at the CEEW-USDMA-SDC workshop, How Can We Make Uttarakhand Climate Resilient? 15 June 2022.

**Maharashtra**
CEEW is supporting the revision of Maharashtra’s State Action Plan on Climate Change (SAPCC) and disaster management plans through granular vulnerability assessments and enhanced mitigation and adaptation targets.
Enabling Sustainable Mobility in Uttar Pradesh and Kerala

Uttar Pradesh

CEEW has an MoU with the Regional Centre for Urban & Environmental Studies (RCUES), Lucknow, to build capacity of state government officials on sustainable mobility. CEEW has prepared action plans and is conducting trainings as per the needs identified by officials across the state.

Uttar Pradesh

Enabling Sustainable Mobility in Uttar Pradesh and Kerala


CEEW's CHRIS TERESA and ARAVIND HARIKUMAR (C) conducted a focus group discussion with delivery workers in Lucknow to understand challenges impeding their switch to EVs, 03 August 2022.

Kerala

CEEW is part of the expert committee at Kochi Metropolitan Transit Authority for ‘Accelerating Electrification of Autos in Kochi’ and ‘Parking Policy’.

CEEW's HIMANI JAIN has been nominated as council member for the National Transport Decarbonisation Council (NTDC) to assess and support the decarbonisation and zero-emission targets set by the GoI.

Kerala

(Left) GREESHMA GIRI, former Principal Correspondent, The Times of India; G.P. HARI, Executive Officer, Kochi Metropolitan Transport Authority; D. DHANURAJ, Chairman, CPPPR; HIBI EDEN, Member of Parliament, Ernakulam; ARAVIND HARIKUMAR, Research Analyst, CEEW; JOHN L. PAUL, Special Correspondent, The Hindu, at the CEEW-CPPPR workshop, Creating Policy Pathways With The Fourth Estate: Towards Achieving Sustainable Mobility In Kerala, 13 July 2022.

#CEEW Pride

CEEW is part of the expert committee at Kochi Metropolitan Transit Authority for ‘Accelerating Electrification of Autos in Kochi’ and ‘Parking Policy’.

CEEW's HIMANI JAIN has been nominated as council member for the National Transport Decarbonisation Council (NTDC) to assess and support the decarbonisation and zero-emission targets set by the GoI.

Kerala

CEEW's KARTHIK GANESAN (R) moderated a panel discussion at the CEEW-Centre for Public Policy Research workshop, Creating Policy Pathways With The Fourth Estate: Towards Achieving Sustainable Mobility In Kerala, 13 July 2022.
Informing India’s Net-Zero Goals at COP26

CEEW was the first Indian policy research institution to bring out an economy-wide analysis for India’s net-zero transition. Our research and sustained engagements with various ministries helped inform India’s net-zero goal of 2070 at the 26th session of the Conference of Parties (COP26) to the UN Framework Convention on Climate Change (UNFCCC) in Glasgow, in November 2021.

Across 40+ events we presented our research and data on the status of non-fulfilment of pre-2020 commitments by developed countries, the use and misuse of carbon space by countries, the need for climate finance and adaptation grants, de-risking renewables, enabling a just transition, co-developing climate-friendly technologies, and insuring climate-vulnerable populations through a global fund.
Increasing Climate Transparency

Deploying Solar at Scale

Debriefing Indian Parliamentarians

“...inputs provided by India’s civil society, think tanks and research organisations are a key part of formulating national climate strategies. I look forward to seeing CEEW’s continued research and policy work supporting India’s climate action.”

ALOK SHARMA, COP President (2021-2022) in a letter dated 11 August 2022.

CEEW has been selected by the UNFCCC Secretariat to develop a capacity building measurement tool, to be rolled out for all countries.

CEEW’s ARUNABHA GHOSH has been appointed by the UN Secretary-General as a member of the UN High-level Expert Group (HLEG) on Net-Zero commitments of Non-State Actors, March 2022. He is the only South Asian and one of three Asians in the group.

OV AIS SARMAD, Deputy Executive Secretary, UN Climate Change secretariat with CEEW’s ARUNABHA GHOSH at the MoU signing, 21 March 2022.

CEEW has been selected to UNFCCC’s Research and Independent Non-Government Organisations’ (RINGO) Steering Committee, June 2022.

CEEW’s SHIKHA BHASIN has been selected to UNFCCC’s Research and Independent Non-Government Organisations’ (RINGO) Steering Committee, June 2022.

CEEW’s ARUNABHA GHOSH has been appointed by the UN Secretary-General as a member of the UN High-level Expert Group (HLEG) on Net-Zero commitments of Non-State Actors, March 2022. He is the only South Asian and one of three Asians in the group.
Urging Climate Action at Stockholm+50

CEEW was invited by the UNEP and the Government of Sweden to co-author the official scientific report for the Stockholm+50 UN International Meeting, with the Stockholm Environmental Institute (SEI). The report, Stockholm+50: Unlocking a Better Future, detailed how the human relationship with nature could be harmonised through the fundamental shifts of repairing our relationship with nature, achieving lasting prosperity for all, and investing in a better future. It was accompanied by an associated youth report that integrated findings from a global online survey conducted of over 900 young people (18-30 years old) from 91 countries.

CEEW, as a Knowledge Partner to the Government of India for the UN High-Level Dialogue on Energy (HLDE) and its Energy Compact Initiative, supported a collaborative effort of 15 Union Ministries and Departments led by the MNRE. We curated and produced the Energy Compact booklet and the energytransition.in website as part of this effort.

CEEW co-convener multi-sector industry consultations and UN events with the MNRE and the Permanent Mission of India to the UN at New York to help draft and develop India’s Energy Compact as well as 21 Compacts from public and private sector corporates, states, and Smart Cities. These engagements have strengthened India’s position as a UN Global Champion for Energy Transition.

Showcasing India’s Global Leadership in Energy Transition

CEEW, as a Knowledge Partner to the Government of India for the UN High-Level Dialogue on Energy (HLDE) and its Energy Compact Initiative, supported a collaborative effort of 15 Union Ministries and Departments led by the MNRE. We curated and produced the Energy Compact booklet and the energytransition.in website as part of this effort.

CEEW co-convener multi-sector industry consultations and UN events with the MNRE and the Permanent Mission of India to the UN at New York to help draft and develop India’s Energy Compact as well as 21 Compacts from public and private sector corporates, states, and Smart Cities. These engagements have strengthened India’s position as a UN Global Champion for Energy Transition.

USD ~$34 billion committed by India’s Energy Compacts is nearly half the total UN Member States’ commitments of USD ~$73.6 billion (as of Oct 2021)

Source: Energy Compacts Booklet

Read India’s Energy Compact commitments here: energytransition.in
Building a Global Rules-based Architecture for Green Hydrogen

CEEW has proposed eight principles of a rules-based architecture for green hydrogen to serve as the foundation to develop a secure global energy economy of this strategic industrial fuel of the 21st century. CEEW’s research and advocacy on green hydrogen over the past several years through policy papers and in-depth reports, and multilateral stakeholder consultations including multi-lateral and multi-stakeholder roundtables, expert workshops and seminars in India and abroad have found strong traction. Key developments include the Quadrilateral Security Dialogue (Quad) announcing a Clean Hydrogen Partnership in 2022.

"Green hydrogen holds immense promise as a clean energy vector of the future. France and India can team up on green hydrogen to accelerate our clean energy transition, meet our carbon neutrality targets and strengthen our energy independence."

EMMANUEL LENAIN, Ambassador of France to India at the CEEW-Embassy of France workshop, Indo-French Partnership to Power a Decarbonised Hydrogen Industry, 23 May 2022.

"Our discussions on green hydrogen are timely as both India and Chile plan their decarbonisation roadmaps. Green hydrogen has an important role to play in achieving our net-zero goals."

JUAN ANGULO, Ambassador of Chile to India, concurrent to Bangladesh, Sri Lanka and Nepal at the CEEW webinar, A Multilateral Approach to Building a Global Hydrogen Economy, 08 September 2021.
This year, CEEW proudly opened the doors to its two new homes in New Delhi and Lucknow. A labour of love and painstaking detail overseen by colleagues, our offices live and breathe sustainable choices. From recycled furniture and recyclable flooring to energy efficient lighting, every component has a sustainability story to tell.

1,000+ plants across all three floors

60% recycled material used in the carpeting that is produced at an RE-powered factory

70% jute in the upholstery fabric

100% biodegradable Marmoleum on our floors
WOMEN IN SUSTAINABILITY

CEEW’s Women in Sustainability (WiS) initiative is a network of individuals and institutions that aims to promote greater participation, inclusiveness, and visibility of women at all levels of the public policy workforce. Now in its fifth year, WiS has been empowering women to challenge the status quo through discussions, gender sensitivity trainings, book readings, film screenings and much more.

PROPELLING CAREERS

People first at CEEW

Continuing our tradition of celebrating key milestones in our colleagues’ professional journeys, we felicitated 21 team members who had completed 3, 5, 7 and 10 years at CEEW in the presence of our trustees. We also planted an equivalent number of trees in their name in collaboration with Grow-Trees.

CEEW Leadership Academy sessions were held in two cohorts - Winter Batch (September 2021) and Spring Batch (March - April 2022). In the two cohorts, workshops on topics such as managing people, building strategic government relationships, strengthening accountability, and developing a growth-oriented mindset were organised.

CEEW’s Gender KPIs

<table>
<thead>
<tr>
<th>Last year (As of July 2021)</th>
<th>This year (As of July 2022)</th>
</tr>
</thead>
<tbody>
<tr>
<td>proportion of men to women in the organization</td>
<td>54.4</td>
</tr>
<tr>
<td>of total salary disbursed to women</td>
<td>33%</td>
</tr>
<tr>
<td>of leadership roles held by women</td>
<td>47%</td>
</tr>
<tr>
<td>women on the CEEW governing board</td>
<td>1</td>
</tr>
<tr>
<td>research publications with women as lead authors</td>
<td>36%</td>
</tr>
<tr>
<td>women speakers at CEEW panel discussions</td>
<td>37</td>
</tr>
<tr>
<td>women in CEEW programmatic advisory groups</td>
<td>35%</td>
</tr>
<tr>
<td>instances of women researchers quoted in the press</td>
<td>29%</td>
</tr>
<tr>
<td>opinion articles published with women as first authors</td>
<td>41.9%</td>
</tr>
<tr>
<td>opinion articles published with women as second authors</td>
<td>19%</td>
</tr>
</tbody>
</table>

*Excludes opinion articles written by the CEO.*
Celebrating family

Leading up to our 12-year anniversary, our colleagues and their loved ones came together at our new office campus in New Delhi for a celebration. With over 120 family members, from grandparents to toddlers, joining us, it was a fun-filled day of guided office tours, film screenings, trivia quiz, sumptuous street food and more! 09 August 2022.

Informing Public Opinion

6,900+ media mentions

~100 media appearances
of CEEW researchers in news channels such as Rajya Sabha TV, NDTV, CNBC TV18 and Al Jazeera.

82 op-eds
published in leading national and regional media outlets.

(September 2021 – August 2022)
Opp-eds

Green hydrogen can fuel the low-carbon world of the future. **AKUNARIA GHOISH**
September 2021

Shock-proofing power: Efficiency of thermal plants must be increased and regulators empowered. **SHALU AGARWAL & KARTHIK GANESAN**
April 2022

A window for inter-State collaboration, to breathe easy. **TANUSREE GANGULY**
April 2022

How EVs can drive energy security. **VAIBHAV PRATAP SINGH & HIMANI JAIN**
June 2022

Heatwaves are a result of climate change. **VAIBHAV CHATURVEDI**
April 2022

Clean energy should use the battery of a circular economy. **AKANSHA TYAGI**
March 2022

A window for inter-State collaboration, to breathe easy. **MOHAN RAMA RAO & S. MADHAVINATH**
April 2022

Putting youth at the forefront of climate action. **BRUVAN RAVINDERAN**
June 22

Our farm income and nutrition challenge amidst climate change. **ABHISHEK JAIN**
October 2021

Making green H₂ cost-competitive. **HEMANT MALLYA & DEEPAK YADAV**
February 2022

BusinessLine

How EVs can drive energy security. **VAIBHAV PRATAP SINGH & HIMANI JAIN**
June 2022

How can India’s cooling sector become sustainable? **ADITYA GANG**
June 2022

Our farm income and nutrition challenge amidst climate change. **ABHISHEK JAIN**
October 2021

Making green hydrogen cost-competitive. **HEMANT MALLYA & DEEPAK YADAV**
February 2022

The Financial Express

Making green hydrogen cost-competitive. **HEMANT MALLYA & DEEPAK YADAV**
February 2022

Media mentions

"India must colour coal cash green for mining communities to survive," **PRATEEK AGGARWAL**, quoted in The Economic Times, June 2022

"To encourage sustainable use of groundwater, a system of individual groundwater rights and consumption-based electricity pricing is needed," **NITIN BASIL**, quoted in The Times of India, March 2022

"Wind energy sector needs course correction," **DISHA AGARWAL**, quoted in Hindustan Times, June 2022

Targeted incentives likely for promoting green hydrogen. **HEMANT MALLYA**, quoted in Business Standard, January 2022

Sharp spike in farm fire episodes as peak pollution season nears. **L.S. KURINJI**, quoted in The Times of India, October 2021

"India is seeking answers to a question that will concern us all: How do you cool a world that is getting hotter?" **SHIKHA BHASIN**, quoted in Neue Zürcher Zeitung, June 2022

For net-zero, India needs 5,600 GW of solar capacity, coal usage drop by 99%. **CEEW RESEARCH**, quoted in The Economic Times, November 2021

Electric 2- and 3-wheelers see highest-ever monthly sales in October. **HIMANI JAIN**, quoted in The Hindu Business Line, November 2021
Media appearances

VAIBHAV CHATURVEDI, on Climate deal “falls short” as China and India block end to coal power, BBC News | November 2021

GAGAN SIDHU, on Opportunities in Green Energy | Bazaar Corporate Radar, CNBC TV18 | January 2022

KARTHIK GANESAN, on Delhi’s Toxic Air: Why Is Pollution Least of Government’s Worries? India Today | November 2021

SHIKHA BHASIN, on The Climate Clock: The cooling conundrum, energy efficiency and emissions, CNBC TV18 | December 2021

NITIN BASSI, on Urban Debate: Water Wars, Mirror Now | May 2022

ARUNABHA GHOSH, on Eco India — The Environment Magazine, OK! | August 2022

ABHISHEK JAIN, on Powering Livelihoods: The impact of energy access, Mission Shunya Podcast | March 2022

What On Earth!™ turns 1!

Dedicated to the planet, our Pale Blue Dot, CEEW is proud to present to you, What On Earth!™ Our cartoon series on sustainability. A new cartoon is published every Wednesday and on special days with a point or a counterpoint to ponder and share forward. #Sustainability

What On Earth!™ became a popular conversation piece in the form of posters at events, as well as mugs and tote bags that adorned desks of diplomats and bureaucrats as well as friends of CEEW.
Outreach Innovations to Mainstream Sustainability

SHOWCASING GRASSROOT CLIMATE CHAMPIONS

Faces of Climate Resilience is a set of 16 short films that capture the voices of climate-vulnerable communities from different parts of India. The films cover stories of community resilience in the face of cyclones, floods, drought and forest fires across some of India’s most climate-vulnerable states—Kerala, Maharashtra, Odisha, Rajasthan and Uttarakhand. The short films, supported by the India Climate Collaborative and EdelGive Foundation, were released in the lead up to COP27.

A PERFORMANCE POETRY VIDEO ON CLIMATE ACTION!

Portrait of a Silver Lining, a CEEW-SEI production, showcases a poem written and performed by SIMAR SINGH, a young poet from the Global South. The video urges viewers to take bold climate action and pursue accountability to heal our planet. The performance poetry video is the artiste’s interpretation of the messages in the CEEW-SEI scientific report, Stockholm+50: Unlocking a Better Future.

GOING LIVE WITH A FARMING INFLUENCER

For the Powering Livelihoods (PL) programme, CEEW-Villgro collaborated with DARSHAN SINGH, a popular farmer influencer who runs an online channel, Farming Leader. The followers of the channel are primarily based in rural India and practice farming along with other allied activities. In the Facebook Live video, Darshan spoke with the PL-supported enterprise Raheja Solar and its end users.

~600 enquiry calls received by Raheja Solar from potential customers

6.5 lakh+ views on Facebook

CAN YOU GET TO NET-ZERO? A CEEW STRATEGY GAME

CEEW developed and launched this strategy and simulation game ahead of COP26 to help sectoral experts understand the scale and pace needed for India’s energy transition. It allowed users to choose India’s net-zero target year by exploring combinations of technology developments available.

PUBLIC SERVICE AD ON SUSTAINABLE COOLING

CEEW-SHEETAL produced and launched a consumer-focused public service advertisement (PSA), Take Care, during the summer of 2022. Promoted on YouTube targeting AC users in Delhi-NCR, it nudges viewers to ‘Take Care’ of their ACs through good servicing practices, which can optimise their cooling performance and reduce power consumption.

2.5 lakh+ viewers on YouTube in less than a fortnight
Board of Trustees

L to R from top:

JAMSHYD N. GODREJ, Chairperson, CEEW
Chairman and Managing Director, Godrej & Boyce Manufacturing Company Limited

TARUN DAS, Founding Trustee, CEEW
Former Director General, Confederation of Indian Industry

DR ANIL KAKODKAR, Trustee, CEEW
Former Chairman, Atomic Energy Commission, and former Secretary, Department of Atomic Energy, GoI

S. RAMADORAI, Trustee, CEEW
Chairman, Tata Technologies Limited; and Director, Piramal Enterprises Limited

MONTEK S. AHLUWALIA, Trustee, CEEW
Former Deputy Chairman, Planning Commission, GoI, and Currently Distinguished Fellow Centre for Social and Economic Progress

DR NAUSHAD FORBES, Trustee, CEEW
Co-Chairman, Forbes Marshall

NENGCHA LHOUVUM MUKHOPADHYAYA, Trustee, CEEW
Former Ambassador of India to Indonesia, Serbia, and Lebanon

DR JANMEJA YADAV SINHA, Trustee, CEEW
Chairman India, Boston Consulting Group

N. K. SINGH, Special Invitee to the Board, CEEW
Chairman, 15th Finance Commission

Funding

CEEW is an independent, nonpartisan, not-for-profit policy research institution, dedicated to research that affects the use, reuse, and misuse of resources. We maintain our independence through a diversity of funding sources such as donations and grants from private and philanthropic foundations, multilateral organisations, corporations, and public institutions. Committed to being a resource for policymakers, academics, industry stakeholders, journalists, students, and the wider public, we make all our research and analysis freely available to the public.

At The Council, we separate clients from funding institutions. Funders do not have the right to final review of any of our publications prior to release. All our monitoring and evaluation systems are designed to prevent conflicts of interest. CEEW is a registered Trust under The Registration Act, 1908 and governed with The Indian Trust Act 1882. CEEW is also registered under section 12A of the Income Tax Act, 1961 and has approval under section 80G of the Income Tax Act, 1961.
Life @ CEEW

Build institution, leave legacy!
The great thing about building an institution with young people is their energy, enthusiasm, and excitement. Stay young, in body and mind.
REIMAGINE is a piece of art depicting a new way of life built on respect for all beings and care for the planet. It was made for CEEW by our creative partners, Aravani Art Project, a trans and ciswomen-led art collective.

Artists: Deepak, Hamsa, Prarthana, Purushi, and Shwetha.

GRATITUDE

CEEW would like to thank the following colleagues for their contributions to CEEW’s research, outreach, and institution building.


CEEW@12

320+ Peer-reviewed publications

160+ Instances of increased data transparency

460+ Roundtables & conferences

22 Indian states engaged

110+ Bilateral & multilateral initiatives promoted

Annual report editorial team
Kartikeya Jain, Alina Sen, Neera Majumdar, and Mihir Shah

Design team: Twig Designs
Content: Team CEEW
Cover image: Aravani Art Project
Typefaces: Abril and Graphik family
Printer: FRIENDS Digital Pvt. Ltd