



July 2021

Featured Story



The featured article for the month of June is titled [‘Skipped Sources: From Tyres to Brakes’](#). Written by Dr Vignesh Prabhu from the Climate, Environment and Sustainability sector, this article discusses how non-exhaust emissions (NEEs) from vehicles produce a significant quantity of tiny and toxic particulate pollutants that can deteriorate the air quality and cause adverse health impacts. The author emphasises that despite their health hazards, not enough has been done to study NEEs.



CSTEP Changemakers

Electrifying the most fuel-consuming vehicles, such as buses and trucks, can expedite decarbonisation of the transport sector. In this regard, our work on supporting the relevant authorities in their plans to induct electric buses can be of tremendous value. We have developed a web-based planning tool that can assist state transport undertakings in their plans to electrify their bus fleet.

– Dr Vinay S Kandagal, Materials and Strategic Studies sector

Solutions

India plans to install 450 GW of renewables by 2030. With the addition of large renewables into the grid, balancing the grid will be a major challenge for utility operators. Storage systems such as pumped-hydro energy storage (PHES) have the capability to balance the grid by allowing seamless integration of intermittent renewables into the grid. However, the current pricing mechanism does not take into account the grid flexibility aspects of PHES. Because of this, PHES is not able to leverage its usability to the full capacity. Our [study](#) suggests a pricing mechanism that takes into account the grid flexibility aspects of PHES, while recommending a differential costing for pumping and generation.



Events

CSTEP observed **World Environment Day 2021** on **05 Jun** and **World Oceans Day 2021** on **08 June 2021** with special posts and articles.

WORLD ENVIRONMENT DAY 2021



Mr Suresh Prabhu
Indian Member of Parliament and PM's Sherpa to G7 & G20 Summits; Former Minister of Environment & Forests, Govt. of India; CSTEP Board Member



Dr Jai Asundi,
Executive Director, CSTEP



On World Environment Day, we posted a [quote](#) by Shri Suresh Prabhu, Indian Member of Parliament, former Union Minister for Environment & Forests, and a CSTEP Board member, about the need to reimagine,

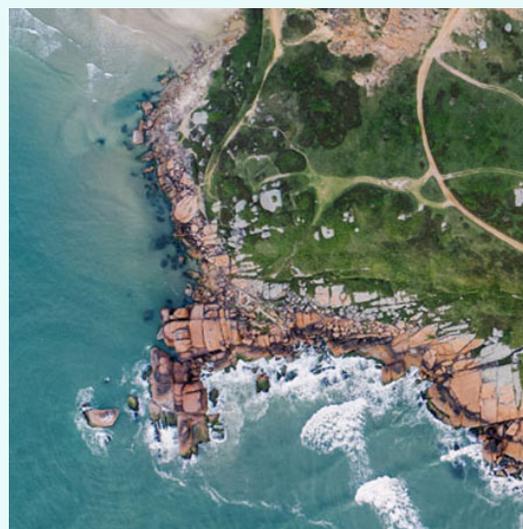
recreate, and restore our ecosystems. We also posted a [quote](#) by Dr Jai Asundi, Executive Director on how every solution at CSTEP is driven by a passion to restore our symbiotic relationship with nature.



On the eve of World Environment Day, the Communications and Policy Engagement team launched a new format under the '[Science Says](#)' video series to discuss scientific concepts in an engaging manner and be part of a dissemination drive, to connect with common citizens and society at large.



We also posted a blog '[Reclaim and Restore our Lands](#)' by Dr *Indu K Murthy and Ms Tashina Madappa Cheranda* from the Climate, Environment and Sustainability sector. The authors suggest that reviving forests and agricultural land can result in big gains, including sustainable food security and climate change mitigation.



Another blog titled '[Geospatial Tools for Ecosystem Restoration](#)', written by Mr Sameer Mishra and Dr Pratima Singh from the Climate, Environment and Sustainability sector, was also posted to mark World Environment Day. In this article, the authors explain how geospatial tools can play a vital role in real-time management and monitoring of our ecosystems.

On World Environment Day, Dr Indu K Murthy and Dr Pratima Singh from the Climate, Environment and Sustainability sector were invited to speak at different events.



Dr Murthy delivered a keynote lecture on 'Ecological Restoration of Forest Ecosystems' at a webinar organised by the Department of Environmental Science, Integral University, Lucknow.



Dr Singh was invited as a panellist to the media workshop organised by the Asar Social Impact Advisory (Asar) on 'Air Pollution & COVID-19', where she spoke about the effects of air pollution on respiratory health and increased vulnerability to Covid-19.

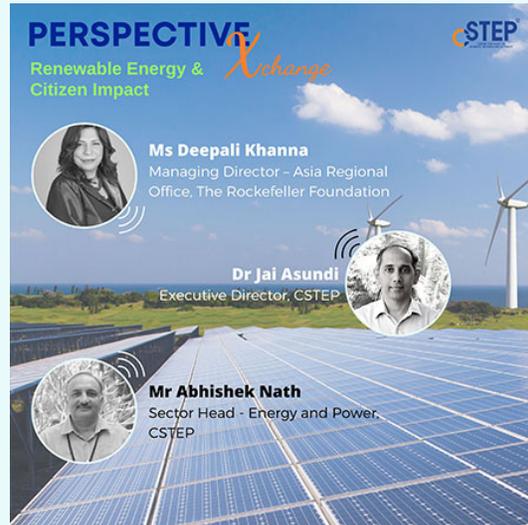


CSTEP celebrated **World Oceans Day 2021**, with a special [infographic](#) on how protecting oceans is critical to our planet's health. We also posted a blog article by Ms Sreerexha Pillai from the Communication and Policy Engagement team, titled '[Ocean's Best](#)', on how oceans anchor lives and livelihoods.

In Jun 2021, we published two episodes of our Perspective Xchange podcast series.



The 7th episode of Perspective Xchange podcast series, titled '[Ecosystem Restoration and Role of Business](#)', was uploaded on Spotify and posted on our social media platforms to celebrate World Environment Day. In this podcast, Dr Jai Asundi, Executive Director, CSTEP and Mr Mukund Rajan, Chairman – ECube Investment Advisors, and also Chair of the Environment Committee at the Federation of Indian Chambers of Commerce and Industry (FICCI), discuss important aspects of ESG (Environmental, Social, and Governance) norms, and the role Indian industry needs to play in the areas of climate and sustainability.



The next episode, titled '[Renewable Energy & Citizen Impact](#)', has Dr Jai Asundi and Mr Abhishek Nath, Sector Head, Energy and Power sector in conversation with Ms Deepali Khanna, Managing Director – Asia Regional Office, The Rockefeller Foundation. They discuss how distributed renewable energy systems can play a pivotal role in enhancing energy access and achieving several UN Sustainable Development Goals.



CSTEP is conducting a webinar on 30 July 2021 to discuss the role of pumped-hydro energy storage in the Indian grid. The [webinar](#) will have two sessions. The first session will be on 'The Need for Pumped-Hydro Storage in the Indian Grid'. In the second session, CSTEP will present its study on PHES followed by a panel discussion on 'Pricing Mechanisms for PHES'.

In the News

This month, CSTEP was featured **seven** times in the media. This includes five opinion pieces/columns published in leading print and digital news platforms.

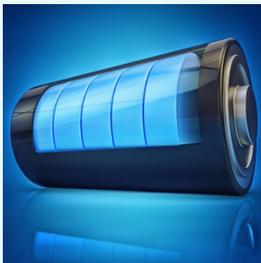
On World Environment Day, two articles were published in different media platforms.



The Financial Express published an article '[The Inheritance of Loss](#)' by Ms Sreerekha Pillai from the Communication and Policy Engagement team. In this article, the author explains why nature needs to be put at the centre of economic decision making.



Another article, titled '[The Right Moves For Environment](#)' by Ms Anantha Lakshmi Paladugula from the Climate, Environment and Sustainability sector, was published in **Mobility Outlook** and suggests that cities should adopt non-motorised transport, given the obvious environmental benefits and affordability.



ET EnergyWorld published an opinion article by Dr Ammu Susanna Jacob from the Energy and Power sector and Ms Aswathy KP from the Materials and Strategic Studies sector, titled '[Second life of batteries](#)'. The article recommends the second use of batteries in the electricity grid and explains how this can reduce the total cost of ownership of e-buses.



Another article by Mr Vishu Mishra and Mr Abhishek Nath from the Energy and Power sector was published in **ET EnergyWorld**. The article titled '[Significance of DRE systems in strengthening the electricity infrastructure](#)' suggests solutions for greater deployment of distributed renewable energy to reduce dependency on the transmission network.



Solar Quarter India published an article on '[What are the New Market Opportunities for Indian Developers in Solar plus Storage Space?](#)' written by Mr Jaymin Gajjar from the Energy and Power sector. In the article, the author writes about the new market opportunities for Indian developers in the solar-plus-storage space.



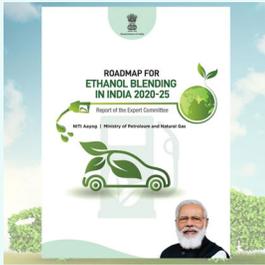
Dr Indu K Murthy from the Climate, Environment and Sustainability sector was invited to a panel discussion organised by **Patrika TV – Rajasthan**. In the show titled ‘Capital Talk’, the panellists discussed the impacts of climate change in India. The recording of the show is available on [Patrika TV Facebook page](#).



Dr Indu K Murthy was also quoted in an [article](#) by **Mongabay** where she discusses carbon sequestration in the Government of India’s national rural employment scheme, MGNREGA.

Tipping the Scale

We are delighted to share that the NITI Aayog report titled ‘[Roadmap for Ethanol Blending in India 2020-25](#)’ has mentioned CSTEP’s SAFARI model for modelling the ethanol demand scenarios. The report was released by Prime Minister Shri Narendra Modi on World Environment Day 2021. CSTEP is mentioned in the report on pages 4, 34, and 35. The SAFARI model was developed by the team working in the Climate, Environment and Sustainability sector.



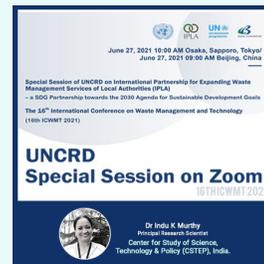
Dr Jai Asundi, Executive Director was one of the panellists at a discussion on ‘[Rethinking Sustainable Consumption and Production \(SDG 12\): Shifting Business and Consumption Patterns](#)’ conducted by the Centre for Responsible Business (CRB) in collaboration with the Melton Foundation.



Ms Rishu Garg from the Energy and Power sector spoke as a panellist at a webinar on ‘India Energy Transition Dialogues: Long-term RE Transition for State-owned Utilities/GENCOS’, organised by the Centre for Policy Research (CPR). Based on a study done by the Energy and Power sector, she made a presentation on how state-owned power generation companies can adapt to India’s renewable energy transition.



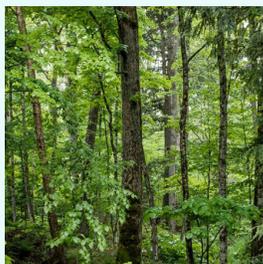
Dr Indu K Murthy from the Climate, Environment and Sustainability sector was invited to speak at a special online session of the United Nations Centre for Regional Development (UNCRD), where she spoke on 'Naturally Correct: Nature-based solutions – A step towards Paris Agreement and SDG 13'.



Dr Vinay S Kandagal from the Materials and Strategic Studies sector spoke at a webinar on 'India's Transition towards Electric Mobility in Automobile Sector and its Impact on Environment' organised by Seshadripuram Institute of Commerce and Management. Dr Indu K Murthy was the guest of honour at this event.



On Our Minds



A journal article co-authored by Dr Indu K Murthy, from the Climate, Environment and Sustainability sector, along with 100 other authors across the world, has been published in *Science Direct*. The article, '[Taking the pulse of Earth's tropical forests using networks of highly distributed plots](#)', highlights the need for networking and explains how the global community is responding to the challenges of tropical ecosystem research with diverse teams measuring trees in long-term plots.



In our latest LinkedIn blog post, '[Go Planet!](#)' in CSTEP SPACE (Science & Policy Aligning with Citizen Engagement), Ms Merlin Francis from the Communication and Policy Engagement team writes how, through behavioural changes, we can be the superheroes who could save the world from climate crisis.

Tickle Tales



It has been our endeavour to keep you abreast with the significant monthly developments at CSTEP through POLICY Matters. Please feel free to share your suggestions, if any, by writing to us at cpe@cstep.in



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