

BITS to turn training ground for next-gen climate experts

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Panaji: India is working towards understanding and mitigating the impact of climate change, but there is still little data available on the greenhouse gas emissions by the country's agriculture, forests and land-use (AFOLU) sector. To boost studies and analyses in this area, BITS Pilani KK Birla Goa campus at Zuarinagar, in partnership with New Delhi-based Council on Energy, Environment and Water (CEEW), will offer fellowships, starting next month, to train the next generation of climate policy experts.

"We will launch a doctoral programme in climate policy focusing on capacity-building in long-term greenhouse gas emissions modelling in India's AFOLU sector," said Rajiv Kumar Chaturvedi, a faculty at BITS Pilani Goa and a UN expert in the area of the greenhouse gas emissions inventory in the AFOLU sector.

Agriculture, forests and land use change emissions constitute an important part of the climate policy debate, said Rajiv Kumar.

The programme now aims to train six PhD students over the next six years at BITS Pilani's Goa campus. These students will be paid competitive fellowships and will receive hands-on industry exposure at CEEW along with regular opportunities to interact with the wider global modelling community, said Chaturvedi, who is co-ordinating the new programme and is also associated with preparing the State Action Plan on Climate Change (SAPCC) for Goa.

"Within the AFOLU sector,

PREPPING FOR THE ROAD AHEAD

India's policy landscape in the AFOLU sector envisages large-scale changes in the near future (2030) and long-term future (2050 and beyond)



- The country's long-term forest policy envisages increasing forest and tree cover from the current 25% to 33% of its geographic area
- India aims to sequester an additional 2.5-3 billion tonnes of CO₂ by 2030 as part of its nationally determined contributions (NDC).
- It aims to restore 26 million hectares of degraded lands by 2030, compared to the

2014 base

- The country also plans to promote agro-forestry and soil carbon sequestration on farmlands

THE FLIPSIDE

- Since AFOLU is a climate-sensitive sector, there are concerns that impacts of climate change may adversely affect stored carbon and sink potential in India's forests and tree cover
- There are concerns that under a warming climate, Indian forests may become a source of emissions as opposed to a sink today

forests and trees sequestered about 15 per cent of India's total carbon dioxide emissions in 2016. At the same time, livestock and rice production contributed to much of India's methane emissions. A lot has been done to understand India's emissions from the energy sector with significant modelling capabilities to learn of its sectoral energy use pathways. However, analysis on long-term pathways and resultant emissions from the AFOLU sector is conspicuous by its absence," said Rajiv Kumar.

There is no modelling team based in India, in our knowledge, that has the capability to model the long-term dynamics of this sector in an integrated way, and this is the gap our programme seeks to address, he said.

"It is important that mo-

delling capacity for understanding the AFOLU sector emission pathways is developed in the country to better inform policy in this sector. Envisioning alternative future scenarios for long-term emissions for this sector is important to prepare actions and strategies to achieve India's 2070 net-zero goal," said Vaibhav Chaturvedi, who is an international expert on integrated modelling of emissions and is co-ordinator for the programme from CEEW's side.

CEEW is among Asia's top climate related think tanks.

Suman Kundu, director of BITS Pilani's Goa campus, said that BITS Pilani will further build on this initiative and will also strengthen its research and capacity building in the area of climate policy, going forward.