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Topic to be	The role of Integrated Assessment Models in building science oriented
presented	national mitigation targets and strategies
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Abstract

Under the Paris Agreement, countries have proposed Nationally Determined Contributions (NDC), which set out their greenhouse gases emissions reductions actions and targets. At COP 30, in Belém-Brazil, countries are supposed to revise their NDCs, with expectations of increased ambition. Defining mitigation targets and strategies should be based on the best available science. Integrated Assessment Models (IAMs) can provide a comprehensive framework to help in the definition of mitigation pathways, as well as the milestones that can be set as national targets and inform the definition of NDCs. Brazil has announced its new NDC ahead of COP30 (Brazil Second Nationally Determined Contribution (NDC) November2024.pdf), after a participative process to build scenarios using the Brazilian Land Use and Energy (BLUES) model. BLUES is a state-of-the-art national IAMs for Brazil that has been developed by Cenergia-COPPE/UFRJ. Modeling capacity is key to help defining national mitigation targets and strategies. Here we will present the Brazilian NDC building process, with focus on the use of IAMs in defining long term mitigation pathways and their short term implications.

Key words: Climate change mitigation; Integrated Assessment Models; National Mitigation Targets.