



PhD in Step Change seminar series

FORESTRY CREDITS AND CLIMATE MITIGATION: OPPORTUNITIES, LIMITATIONS, AND GUARANTEES

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Forests are an essential component of climate mitigation strategies: they absorb carbon, store it in biomass and soil, provide renewable products, and can reduce the use of fossil materials. However the forests contribution must be assessed by considering all phases of the carbon cycle: forest dynamics, forest management, wood products, disturbance prevention, afforestation and reforestation. The presentation will discuss the role of forests in mitigation, including the LULUCF sector and national and European carbon budgets. A specific section will be dedicated to forest carbon credits, which can leverage private resources but which involve risks of greenwashing if they do not meet robust criteria of additionality, measurability, independent verification, permanence, uniqueness, and leakage control. For all interventions, the priority remains reducing emissions at source, protecting existing carbon stocks, and increasing removals only where this is measurable, sustainable, and compatible with biodiversity and adaptation.

Giorgio Vacchiano is Professor of Silviculture, Planning and Ecology of Forest at Università di Milano. He obtained a PhD in Agricultural, Forestry and Agri-food Sciences. In 2018, he was selected by the journal Nature as one of the 11 emerging scientists in the world. His research focuses on developing simulation models to support sustainable forest management, and studying the resilience of European temperate forests to extreme events, fires, and changing climate. He is also actively engaged in scientific communication and dissemination, promoting critical awareness of the role of forests in the global climate crisis. He is currently the only Italian member of the European Scientific Advisory Board on Climate Change (ESABCC), the scientific board that advises the European Commission on climate policies.

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