

EGU24-3090, updated on 10 Mar 2024

<https://doi.org/10.5194/egusphere-egu24-3090>

EGU General Assembly 2024

© Author(s) 2024. This work is distributed under the Creative Commons Attribution 4.0 License.



Enhanced precipitation events and forests stability: a case study in Emilia-Romagna and Tuscany (Italy).

Teodoro Georgiadis¹, Letizia Cremonini¹, Giorgio Matteucci¹, Federica Rossi¹, Francesca Giannetti^{2,3}, Ilaria Zorzi³, Alessio Collalti⁴, Ettore D'andrea⁵, and Simone Cardoni⁵

¹Institute for the BioEconomy - CNR, Bologna, Italy (teodoro.georgiadis@ibe.cnr.it)

²Dept. Agriculture, Food, Environment and Forestry, University of Firenze, Firenze, Italy

³Bluebiloba Startup Innovativa s.r.l., Firenze, Italy

⁴ISAFOM - CNR, Perugia, Italy

⁵IRET - CNR, Porano, Italy

Climate change is endangering natural and anthropogenic ecosystems, as pointed out by the recent IPCC Reports and the COPs' statements. The impacts of climate change on natural ecosystems can affect their production capacity, particularly in those systems characterized by a high quality of yields, especially in densely populated and industrialized countries. We analyze two recent intense rainfall events that hit the Emilia-Romagna and Tuscany (Italy) regions and the damage caused to the agricultural ecosystems downstream of forests and woodlands. Although the scientific debate on these events' climatic or purely meteorological origin is still open, these occurrences provide a potential direct example of the harm climate change may bring. The topic of forest management for risk reduction is also analyzed on the forest itself and anthropized systems and related economies. The study was conducted within the European OptFor-EU Project.