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Forest soils under threat too.

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Forest soils are undeniably recognized to help deliver essential ecosystem services. Nevertheless this provision is facing serious threats at a moment we need forests the most. The increasing frequency of fire-prone weather conditions in the EU such as the ones causing exceptional wildfire scars in 2017 (San-Miguel-Ayanz et al., 2018), combined with extreme climate demands (IPCC, 2021) and an escalation of forest mechanisation driven by a systematic increase in the use of forest products (EUROSTAT, 2021), have been putting EU forest soils to a new level of pressure. As a result, key ecosystem services such as clean water provision and flood control, habitats for life and biodiversity, biomass provision and carbon sinks, are at stake.

On the other hand, several positive policy initiatives have been initiated under the umbrella of the European Green deal, such as the EU Forest and Biodiversity strategies for 2030. These aim for more healthy, diverse and resilient EU forests, ensuring we can count on their contribution for the most recent climate and biodiversity ambitions. Such initiatives combined with the new EU Soil Strategy should underpin a new era of ecosystems resilience and halt the latest land degradation trends. But the question remains: what is the current state of the EU forest soils after so many years of coexistence with the Europeans?

This presentations aims to provide an overall perspective on current threats affecting forest soils. Issues such as recurrent wildfires, inappropriate land management, land use and land cover changes are all sides of the same coin. Not surprisingly these will lead to land degradation, triggered most frequently by soil erosion. In addition, this paper will identify several misconceptions driven by remote sensing based assessments, such as the identification of good soil conditions under vigorous leaf area indexes, or the consideration of good soil management practices in all forest terraces.

With this argumentation the author hopes to trigger a healthy discussion on the idea that our EU forest soils are not in their best shape, and they too need to be cared for and managed.