



## **What did we do and what can we do with our global soil resources?**

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Our global soil resources increasingly meet the headlines: soil degradation leads to irreversible changes and a loss of the global production potential, soil resources play a key role to reach the sustainable development goals, and soils are seen as a potential solution to some of the climate change mitigation through carbon sequestration. However, global assessments of soil degradation, soil resources, and the potential of soils to provide ecosystem services are not very consistent. This study aims to contribute to the discussion by providing a realistic opportunity space on the options for our soil resources. First, the natural and current soil conditions are estimated using the S-World methodology. S-World has been developed to provide global maps of soil properties at a 30 arc-second resolution for environmental modelling. By running the S-world methodology for current but also for natural land cover, natural and current soil conditions are estimated. This analysis tells us what we did to our global soil resources. Subsequently, the same methodology is used to analyse a range of different scenarios for the future to explore the potential for soil restoration and carbon sequestration. Although the actual management interventions required are not analysed, the analysis does provide the opportunity space and thus what we can do with our soil resources in terms of realistic ranges. The results are interpreted in the context of the Sustainable Development Goals and the recent 4% initiative for climate change mitigation.