



Vegetative recovery after wildfire

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Wildfires are affecting each year many valuable areas in Italy, as well as in many other parts of the world. The effects on the vegetation may be devastating and the vegetative recovery may take a long time, depending mainly on the vegetation type, the soil hydrological properties and the climate after the wildfire.

In this work a preliminary analysis is performed aimed at the evaluation of the time needed for a complete vegetative recovery. Through the application of a physically based hydrological model the transient of the hydrological response of the area affected by wildfire is simulated and the soil moisture balance is computed. Potential evapotranspiration rates are also computed with standard procedures suggested by the Food and Agriculture Organization for the vegetation types, soil properties and climate conditions existing in some selected study areas. The water available in the soil during the transient condition is compared to the reference potential evapotranspiration and the time needed for a complete recovery is evaluated. The sensitivity of the results to vegetation, soil and climate is finally discussed.