

On the evaluation of sediment yield on burned areas trough hydrologic distributed model

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Abstract. After a wildfire, the watershed response can be potentially changed compared to the undisturbed conditions since the soil chemical-physical properties are altered. The rainfall after a wildfire causes an increase in the runoff and sediment production. If the solid material flows downslope it can cause the so-called "fire-flood". A hydrological distributed model at fine resolution can be useful to understand the process and to evaluate the increase of the post-fire sediment production.

We propose here the study of the soil response to wildfire via dynamic distributed model. An analysis of the hydrologic response and the sediment yield in pre-fire and post fire condition in order to evaluate the influence of fire on the above phenomena.