

Interactive comment on “Sensitivity and evaluation of current fire risk and future projections due to climate change: the case study of Greece” by A. Karali et al.

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We wish to thank Dr. Bedia and Dr. Herrera for their fruitful comments and suggestions. Indeed, in our revised version of our manuscript, we provide appropriate reference to the work of Herrera et al. (2013) and Bedia et al. (in press). It should be noted that our study is intended to provide FWI thresholds for users of climate models or meteorological station data that are generally available on a daily mean basis. The FWI is in fact designed for use with local noon values of wind, relative humidity and temperature. This does not compromise our results for the following reasons. Our aim is not to provide exact FWI thresholds but indicative critical thresholds for modeling

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studies with daily mean data. We are aware that our critical threshold values may be lower, since we used daily mean (DM) meteorological input to estimate FWI, as shown by Herrera et al. (2013). However, these thresholds are still valid if one uses DM values and hence can be applied directly to regional climate model (RCM) output. If we had calculated our thresholds using noon values as indicated in the original FWI literature, we would not have been able to apply these values directly to RCM output, hence they would be of little usefulness. Moreover, although daily mean values of wind and relative humidity may cause a bias compared with noon values, this would be smaller than errors in assuming that noon observations at a fixed meteorological station are representative of conditions at the fire location, at arbitrary times of day, many kilometers from and at different altitudes to the measuring station. As a conclusion, our results are more relevant to our specified aim, as output from current climate models is generally available as daily means, minima or maxima rather than noontime values.

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