

Interactive comment on “Wetter environment and increased grazing reduced the area burned in northern Eurasia: 2002–2016” by Wei Min Hao et al.

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Line 33 - Remove the last sentence of the Abstract, which was not the focus of the manuscript
Line 84 & Line 301 - Move study area description into beginning of Methods section.
Line 74, Line 84, Line 283, Line 301 – Agree to modify as recommended by the reviewer 1 that would improve the flow of the paper
Line 317 – Would add in Figure 7 the major political breakpoints and livestock changes
Line 331 – Modeling to capture agriculture management on fire activity is difficult to study. It is not the objective to the paper. Our intention was mostly to provide to the reader the demonstration that grazing a) can be highly variable as a fast response or abrupt change in agricultural

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policies or political regime and b) these abrupt changes can have a significant impact fire hazard. In turn, when DGVMs try to benchmark their outputs on observed burnt areas, they might be aware of some key processes (here grazing) that might have affected burned area variation, and figure if their models account for this process or not, so that any potential mis-match might be due to this missing process. We then specify that grazing is partly inserted in FIRE-DGVMs and suggest that should be better integrated regarding the significant impact on BA. We however acknowledge the difficulty in predicting political collapse in future IPCC scenarios, as well as wars or conflicts that might hardly affect socio ecosystems. We did not intend to solve this problem, but warn the DGVM community to try and capture this important process to better fit historical fire regimes and eventually paleo reconstruction, and account for any probable political collapse/agricultural policies or societal decisions (veganism?) or widespread animal diseases as an extreme, yet improbable factor that could affect future global carbon budget. We'll provide a better explanation of our point of view in this last section of the discussion with proper references.

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