

Nat. Hazards Earth Syst. Sci. Discuss., referee comment RC2
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Comment on nhess-2022-72

Anonymous Referee #2

Referee comment on "Model Comparisons for Predicting Grassland Fire Occurrence Probability in Inner Mongolia Autonomous Region, China" by Chang Chang et al., Nat. Hazards Earth Syst. Sci. Discuss., <https://doi.org/10.5194/nhess-2022-72-RC2>, 2022

Thank you for your efforts. It is good to see the application of these models in the prediction of grassland fire occurrence, which will add new content to the body of knowledge on wildfire occurrence. This manuscript is good, but it could be better with a few changes - I list them below.

Comment 1¼ □

Figure 4 is not clear enough, the resolution needs to be further adjusted. Other figures in this paper also have similar problems.

Comment 2¼ □

In Table 4, it may be biased to only use MAE as the error evaluation criterion. In model accuracy evaluation, MAE (mean absolute error) and RMSE (root mean squared error) are both common indicators, but MAE can only reflect the average error value in a general form. RMSE is the default metric of many models and is more sensitive to outliers, it may be better to add RMSE as the index of model accuracy evaluation.

Comment 3¼ □

This study is reasonable to explain most of the mechanism of fire occurrence driving in the grassland area, but the explanation of this part is confusing: "We believed this was due to the fact that grasslands of Inner Mongolia were mainly distributed on the flat plateau lacking of steep slopes, resulting in a negative correlation between grassland fire

occurrences and Slope”(Line 411-413). Can you explain it further? Or do you have more sufficient data to support this idea.