EGUsphere, community comment CC1
https://doi.org/10.5194/egusphere-2022-1294-CC1, 2023

Comment on egusphere-2022-1294

Carolina Ojeda

Community comment on "How the recursive feature elimination affects the SVM and RF for wildfire modeling? A mountainous case study area" by Ali Rezaei Barzani et al., EGUsphere, https://doi.org/10.5194/egusphere-2022-1294-CC1, 2023

General comments: This article presented a study case in Iran in which a GIS-type forest fire hazard model is tested. Its novelty relies on the improvement of Fire Susceptibility Maps (FSM) results, which could help GIS experts to improve future analyses for similar topographical conditions.

Specific comments:

1. The subtitle is a bit crowded: "A mountainous case study area". My suggestion here is "A study case in Iran".

2. In the abstract line 15 and section 3.2 the concept "anthropology/anthropological" should be replaced by "human actions/factors" or "anthropic actions/factors" because anthropology is a discipline.

3. In the introduction lines 40-43 are redundant with the next paragraph ("in recent years"). Also, its main idea could be developed more by the authors, because forest fires have been modeling the landscapes, lives, and infrastructures since humans inhabited the planet, therefore, it is not an issue of "recent years".

4. In the introduction lines 45-46 are contradicting. If "natural processes have historically caused fires in forests" how could humans accelerate it? Also, what is a "firing process" that was accelerated?

5. In the study area lines 114-121 it could be explained more why "this province is known to be one of the most wildfire-prone regions in northern Iran" besides the reference to Adab et al. (2015). Also, the article could be benefited from a more detailed visual description of the topography (e.g. a topographic profile), which is a special feature remarked in the title "A mountainous case study area".

6. In the discussion section, the authors deliver more accurate information about the selected methods which improved the overall quality of the article and its scientific robustness. However, I missed a comparison with other studies doing the same methodologies in other mountain regions from Iran or other parts of the world with similar topography. Maybe the references named in lines 390-395 could be useful for that purpose if they are presented in a comparative table.

Technical corrections: Please be aware of the capital letter in the acronyms along the abstract (e.g., forest fire susceptibility map (FSM)). Also, the legend of figure 1 has a typo (boundaries).