

Nat. Hazards Earth Syst. Sci. Discuss., referee comment RC1
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Comment on nhess-2021-131

Paul Santi (Referee)

Referee comment on "Data-based wildfire risk model for Mediterranean ecosystems. Study case of Concepcion Metropolitan Area in Central Chile" by Edilia Jaque Castillo et al., Nat. Hazards Earth Syst. Sci. Discuss., <https://doi.org/10.5194/nhess-2021-131-RC1>, 2021

While the writing is clear, there are a few unusual word choices and I recommend that the authors include another review for English grammar and word selection.

line 22 - what do you mean by "fire spots"? Fire locations?

line 52 - remove the comma after "windy"

line 53 - suggest changing to "...slopes rapidly lead..."

line 59 - "...categories of wildfire likelihood that correspond..."

line 65 - suggest removing the word "trace"

line 70 - change to "manages"

lines 70-74 - not a complete sentence

line 78 - change to "sprawl"

line 80 - change to "...2010) that lead to..."

line 84 - "...changes is related to more..."

line 98 - change to "...which are expanding rapidly, mostly for..."

line 99 - "Also, the region contains a variety of ..."

line 101 - "characterizes"

lines 107-109 - the change from 44,123 hectares to 46,697 does not seem like much of an expansion to me. I would suggest saying that it has maintained a steady amount of forestry plantations in spite of urban growth.

line 119 - change "portraits" to "portrays"

line 121 - "frameworks"

line 123 - change "ingested into" to "included in"

line 126 - I suggest using the term "moderate" throughout the paper instead of "median," which has connotations of calculated statistical parameters

lines 132 and following - wildfire spots term is unusual. Maybe use "wildfire locations" throughout the paper?

line 145 - "...network, were retrieved..."

line 158 - "NDII and NDVI data entered into the ..."

line 169 - change "ingested" to "included" (suggest changing this word throughout the paper)

line 188 - change to "first"

Section 3.1 - this is a lot of discussion of numbers without reference to any figures or tables showing the actual data. I think it would help to show the data in some way.

line 234 - I am unfamiliar with the term "peri-urban". Is this a standard LULC classification?

line 243 - change to "pixels"

line 250 - change to "hotspot"

line 253 - change to "indicate"

line 277 - what do you mean by "highest sectors"? Highest elevation, or largest area?

Figure 2 - Are the NDVI and maybe some other categories self-determined? For example, if an area is counted as burned, because it is in the database, wouldn't the vegetation be a different type than the unburned land? That is, suppose pre-burn it was vegetation type A, but post-burn it is vegetation type B (since many locations revegetate with different species). Then your statistics would naturally associated vegetation type B with burned areas and assume they are more likely to burn than areas with vegetation type A.

Figure 3 - use larger font to make it readable? Also, you use the term "Medium" for the middle category here - make sure you use a consistent term throughout the paper (I suggest "moderate").

line 317 - replace "recurrently" with "frequently"

line 334 - remove "for"

line 390 - replace "causing" with "requiring"

line 397 - use "2,1 million"

line 404 - explain what you mean by "some degree". I would expect that to include the medium and higher categories, which is 40%. It seems like the 90% number would even include low risk, so I don't think this statement is as strong as simply saying "this work shows that at least 40% of the CMA is subject to at least medium probability of wildfire occurrence."

line 413 - "countries, along with other..."

line 428 - "areas) when there are more plantations."

line 431 - replace "pointing" with "indicating"

line 435 - "two, not necessarily"

line 443 - remove contraction

line 451 - "it becomes"

line 462 - "improve or make"

Section 5 Conclusions - I suggest including a short paragraph summarizing the statistical results indicating influencing factors. The paragraph starting at line 480 belongs more in the discussion section, rather than introducing these new ideas in the conclusions.