Interactive comment on “Attribution of the Australian bushfire risk to anthropogenic climate change” by Geert Jan van Oldenborgh et al.

Anonymous Referee #3

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This paper addresses a challenging issue, and provides lots of interesting details. I consider the conclusions drawn from the analysis valid and significant, and eventually the paper must be published.

However, the paper has the character of a technical report. Many technical details make it a barrage of not always relevant information, leaving the reader tired.

For instance, the section 7 is certainly interesting but irrelevant for the issue at hand – which is attribution. It may be relevant in linking the potential for fire to actual fire – but the section is not discussing this limitation of the overall result, but for instance emergency matters

The authors do not provide a clear roadmap of what they do why. For instance, the
attrition to global warming is not really related to the issue of other drivers. What is the idea of attributing how much to global warming, and how much to, say, IOD? Is there an issue with climate change due to changing concentrations of aerosols?

Also, the different data sets – the authors begin with a large list, and then every now and then, one of the data wets is removed (a little like in Agatha Christie’s “And then there were none”). The should say: “we use the sets A,B,C..., because they have passed the following quality checks.” And they should use these data sets for all strands of attribution.

The PR is referring to two time horizons, this should be made clear by using a term like PR(1900,2020) or so. How are the significance tests other trends done? Often the figure legends are incomplete.

Going into further details is not worth it at this time.

My advice: shorten the body of the paper to 10 pages; have necessary purely technical detail in appendices; do not write it as a progress report, which includes dead end streets like the usage of Berkeley Earth, but build a story which demonstrates that the upfront noted results are plausible. Avoid in-group slang. (Maybe a short summary, of how the regional as well as the global public took the events as manifestation of global climate change, and how the new results fit to these public attributions.)