

Reviewer #3

Over all, I think the authors responded well to my comments. I have some general comments:

I agree with the other reviewer that the manuscript can be more concise. Some texts in Sections 2 and 3 may even be more suitable for a model user's manual. However, considering the scope of GMD, the target audience would perhaps benefit from the very detailed explanation of methods when trying to reproduce a feature or compare model performances. I would suggest a revision if in a different journal, but I am fine with the current manuscript.

Furthermore, I feel the manuscript could use some big pictures to justify the technical details. For example, adding up a sentence or two in the final conclusion on how would the improvement contribute to major fire-prone savanna ecosystems in the world (e.g. Africa) and where would you expect the challenges are at extending from Australia to rest of the world, even when the incorporated fire processes are generic worldwide. In response to my comments on resprouting module, the authors commented, "...it is worthwhile to include the treatment of resprouting in the model because it will improve our ability to predict vegetation changes and carbon cycle changes in response to future climate changes". Somehow I feel this should be in the main text rather than in response to the reviewers.