

**Interactive comment on “The benefits to climate science of including Early Career Scientists as reviewers” by Mathieu Casado et al.**

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The study by Casado et al. represents an important piece of work. It is well written and well documented.

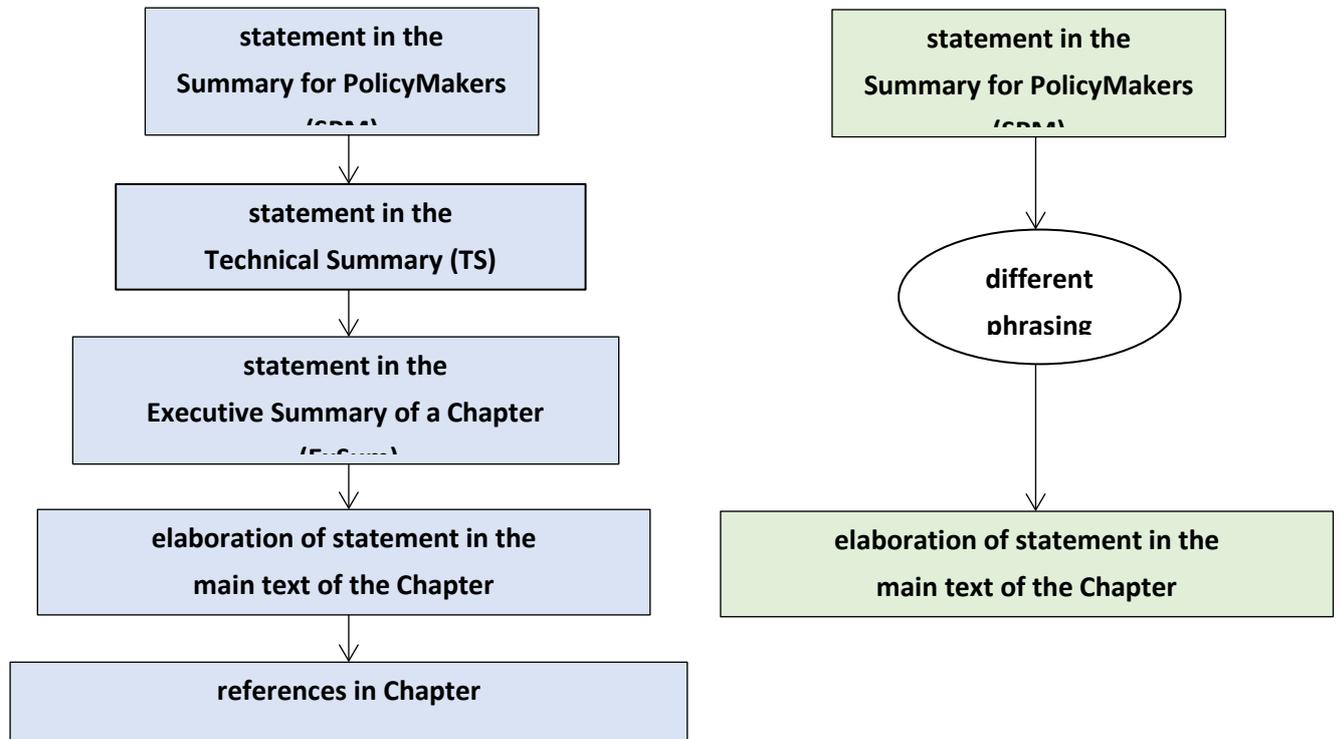
However, I have one serious comment: the paper is in many ways equivalent to the paper published by Lianne van der Veer, myself, Arthur Petersen and Peter Janssen in Climatic Change, 2014. Indeed, this paper is named in line 55, but more as a side remark.

I name a number of equivalent issues:

- We selected 90 PhD students, coming from 31 countries with global spread.
- We reviewed the IPCC AR5 WG II report containing 30 chapters and the corresponding SPM.
- We had a full training of the students with videos, provided network opportunities, interesting sessions with IPCC top speakers, such as Leo Meyer who was the main author of the AR5 Synthesis report, etc. We had a bonus of 250 euro for the best review and a bonus of 50 euro for students finding ‘bloopers’.
- We designed a hand out with a systematic procedure for finding errors/bloopers/inconsistencies etc.
- The review resulted in a total of 3155 comments from which, after selection by an expert panel, a number of 1407 comments were included in the Government review.
- We made a comparison between the quality of PhD comments and experienced scientists.

Because of these large similarities it is my opinion that the style of paper should be changed considerably. As such, it is no problem that research team X repeats a study of team Y, published years before. However, one should start with writing this, including in the Abstract, and should highlight where the new study deviates from the study of team Y.

For example, we found it important the follow the conclusions presented in the SPM down to the lowest levels of the main text of the report. See Figure 1 below. As far as I can see, this is not followed in the present paper. Please give arguments why not.



**Figure 1.** Five levels of information can be distinguished in the IPCC WG II report. The left pyramid shows the ideal situation: a statement on the highest level (SPM) is founded in all the lower levels. The right situation is not ideal: a statement in the SPM is founded in the main text of the Chapter only, without any references to the peer-reviewed literature; moreover, the statement in the SPM has been rephrased (rephrasing is no error but care should be taken).

I have two other comments on the paper. As a reader I am interested in the guidelines that were given to the students. An example of the guidelines we had in our 2014 study is reprinted in Table 1. Is it possible to give a similar table within the paper, with some explanation?

**Table 1.** Checkpoints that serve to signal potential weak points in the report under review. The typology is taken from PBL (2010). The list contains two types of errors (E1 and E2), and six types of comments (C1 through C6).

Type	Description	Explanation
<b>E1</b>	Inaccurate statement	
<b>E1a</b>	Errors that can be corrected by an erratum	For example, typographical errors, incorrect phrasing of part of a sentence, wrong dimensions, and wrong reference years.
<b>E1b</b>	Errors that require a redoing of the assessment of the issue at hand	Such as establishing a new range of numbers by revised calculations from the reference sources available during the assessment period, and/or rephrasing of the expert judgment including its uncertainty labelling.
<b>E2</b>	Inaccurate referencing	A reference to a wrong source, or source not correctly cited. In all cases, an erratum would be needed.
<b>C1</b>	Insufficiently substantiated attribution	The <i>climate change component</i> of impacts/risks should be carefully characterized. If applicable, the role of <i>other factors</i> than climate change (e.g. population growth, industrialization, migration, and changes in land use and land cover) should be discussed appropriately? With regard to extreme events, it is particularly important to be careful with attributing events to anthropogenic climate change
<b>C2</b>	Insufficiently founded generalization	A proper argumentation is lacking or the evidence in the references does not justify a generalization or extrapolation of impacts in one country or sector to include entire regions and/or additional sectors.
<b>C3</b>	Insufficiently transparent expert judgment	The reasoning behind an expert judgment, including the reasoning behind its level of likelihood and/or confidence, is not accessible to a non-expert reviewer. However, the reasoning should be transparent in all cases. Note: a lack of transparency does <i>not</i> imply the judgment to be wrong, since the authors may have had their reasons, and may have considered additional information or knowledge that was not explicitly referred to.
<b>C4</b>	Inconsistency of messages	A message's content and/or confidence level change when going from the main text to a summary (SPM, TS or ExSum). The IPCC procedures require that all summary texts are consistent with the main text or lower level summaries.
<b>C5</b>	Untraceable reference	A reference in a statement cannot be found at all.
<b>C6</b>	Unnecessary reliance on grey referencing	A reference to a grey publication, although strong peer-reviewed journal references were available at the time of writing the concept report. Notice that grey literature is an indispensable part of many assessments since not all relevant literature is published in peer-

		reviewed scientific journals. Please check if references to grey literature are weak: speeches, one-sided NGO reports, newspapers, opinion magazines.
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A second comment is on the comments found by the students in the SROCC report. No examples are given as far as I can see. The authors characterize comments/errors as 'substantive', but what is that? And were the level of comments comparable to those of experts? Please give some examples of what was found.

In Figure 2 an example is given from the SPM FOD of SROCC. There is a blooper in this graph, but which? I am curious if one of the students did find it?

**In conclusion:** to my opinion the set-up of the paper should change since it is largely repeating our article from 2014. At the other hand this is important work, well written, and certainly needs to be published! But not in the present form.



## Changes in the ocean and cryosphere and projected differences between low and high emission futures

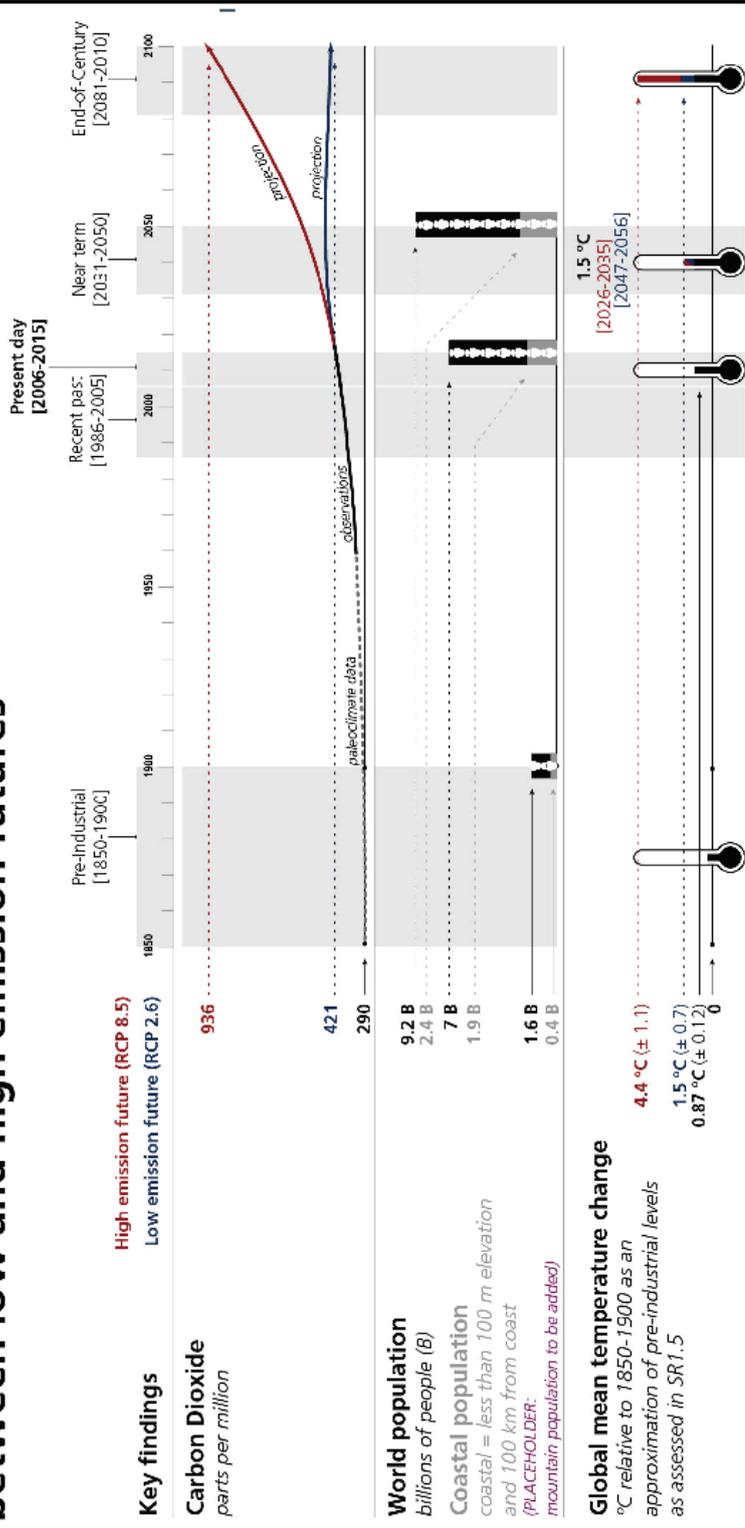


Figure2 Graph from the FOD SPM of SROCC