

Interactive comment on “The Vulnerability, Impacts, Adaptation, and Climate Services (VIACS) Advisory Board for CMIP6” by Alex C. Ruane et al.

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We wish to express our thanks to the anonymous referees and interactive commenter for their detailed and constructive comments on “The Vulnerability, Impacts, Adaptation, and Climate Services (VIACS) Advisory Board for CMIP6” (by A.C. Ruane and co-authors; Geosci. Model Dev. Discuss., doi:10.5194/gmd-2016-71, 2016). Below please find our responses to referee #3 below each comment (beginning with “Authors’ Response:”), which detail the resulting changes we made to the manuscript given tight space constraints. We believe that the manuscript is substantially improved as a result.

Best regards,

-Alex Ruane and co-authors

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Comments from Anonymous Referee #3:

General comments

The VIACS Advisory Board is an excellent initiative. It addresses a key gap between climate modellers and the user community, particularly in the context of the CMIP ensembles.

This paper describes the VIACS AB, including how it is constituted, its scope, mode of operation, objectives etc. The paper does this well and is a worthy publication, requiring little in the way of significant modification. Following here are some specific comments for the authors and readers to consider. I note that some of these may apply more to the VIACS AB operation in general than to this manuscript in particular. Some minor issues with the manuscript are separately noted.

Specific comments

1. The paper needs to clearly specify its purpose in the abstract and its purpose and scope in the introduction. As it currently is, it is clear that the paper is about the VIACS AB, but why the paper is needed and what specifically it will cover is not described.

Authors’ Response: This was also recommended by Reviewer #2, and we have accordingly provided a stronger statement about the scope and purpose of this paper to lead off the abstract. We have also improved the coherence of the message from the abstract through the introduction, and provided a future work component of Section 5.4 that we believe better wraps up the initial results and findings before the summary and benefits section.

2. Lines 140-141: Australia is a long standing region of VIA research which is not contained within the regions noted.

Authors’ Response: We have added Asian-Pacific to the list and have also augmented

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the VIACS AB Structure (Section 3.3) to provide more information about the state of regional representation (as per comments from Reviewer #1 above).

3. Lines 194-196: The text notes here that one way in which Climate Services are distinguished from meteorological forecast services is the 'probabilistic nature of most of the climate information'. This isn't really quite right. Weather forecasts can be probabilistic, and climate information need not be. I think the main thing is that the uncertainties around climate projections are much larger than in weather forecasting, and as a consequence need a different approach.

Authors' Response: Our thanks to the reviewer for pointing out this error. The probabilistic nature is indeed inherent in weather forecasts as well. We removed this sentence since more detailed exploration of differences between weather forecasting and climate projections is an unnecessary tangent in this section. Instead we kept only the multidisciplinary nature of the information required (which also highlights this point more).

4. Para at lines 212-221: Description given of figure 2a, the current situation in communication between VIACS and modelling communities. I think this is accurate in general, but in some countries national projection services provide more coordinated lines of communication (e.g. UK, Australia) to VIACS communities (but not back to CMIP). This should be noted.

Authors' Response: We now include the role of national projection services as an additional line of communication in Section 3.1 to better represent communications in some countries within the text around Figure 2a.

5. Lines 265-270: Constitution of the Board. How are members appointed?

Authors' Response: We have now added to Section 3.3 (Structure of the VIACS Advisory Board) to indicate the origin of the original co-Chairs and selection of Board Members (leaders in their sectors, international programs, or major projects). Mem-

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bers were appointed by the co-chairs, with heavy consultation among leaders of the various communities. The preliminary members of the Advisory Board arose from joint discussions in the lead up to CMIP6 wherein various communities noted parallel efforts to organize and consolidate communications within the VIACS community and between the VIACS and Climate Modeling communities.

6. Line 410 – 561: Description of impact sector communities: These seem somewhat uneven, differing more than the nature of the communities would require. Some specific examples in the next two points.

Authors' Response: Each co-author re-examined their sections in an effort to more closely harmonize description frameworks across all VIACS communities. Particular attention was given to the specific sections highlighted below, however additional information was also provided for CORDEX and PROVIA.

7. Lines 465-480: Water Resources: This sector stood out as looking poorly organized compared to the others. Is that really the case?

Authors' Response: The sector is probably less well organized than the others. There is little coordination between catchment-scale studies, and the global-scale research community is small – but increasingly coordinated. The text has been revised to make this more explicit, and also to add a few more specific details.

8. Lines 536-554: Terrestrial ecosystems: This description is unbalanced in its focus on the US situation as opposed to that elsewhere. Also 'climate services' are referred to in this item, but not the previous ones. Is there a real distinction being made between sectors with regard to climate services?

Authors' Response: This section has been updated such that the use examples are used to indicate some of the efforts which are also being considered internationally, especially with agricultural efforts in the UN through PROVIA and biodiversity efforts of IPBES assessments and analysis.

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9. Line 700: Recommendations for new data sets. Do the authors mean ‘few recommendations’ (as written), or ‘a few recommendations’? A number are given, so the latter may be better.

Authors’ Response: We have revised the text to clarify that it is “only a few recommendations”, as we wish to emphasize that it is not a large number (compared to those contributed by other MIPs).

Minor issues

Lines 57-58: ‘sell-being’ should be ‘well-being’

Authors’ Response: Corrected

Line 676: ‘worth provision of’ is an odd expression.

Authors’ Response: Agreed; and revised.

Interactive comment on Geosci. Model Dev. Discuss., doi:10.5194/gmd-2016-71, 2016.