



To the IPCC Chair

From: Kanako Tanaka, Center for Low Carbon Society Strategy, Japan Science and **Technology Agency**

FINAL REPORT FROM REVIEW EDITOR OF IPCC SYNTHESIS REPORT (SYR) AR5 **TOPIC 4 AND SECTION 3 AND 4 OF SPM**

This document has been prepared based on Expert Reviewers' and Governments' comments and Authors' responses to these comments for the IPCC Section 3 and 4 of the SPM-SYR and Topic 4 of the SYR AR5.

I participated in the 4th core writing team meeting and observed the process of taking account of reviewers' comments on first order draft for the finalization of the Synthesis report of AR5. Contents of topic 3 and 4 had to be adjusted so that the joint meetings were held.

Two review editors, Paulina Aldunce and Kanako Tanaka, have examined the reviewers' comments, the authors' response and the changes made from the first order draft to the final draft in the topic 4 of longer report and parts related to topic 3 and 4 of SPM.

The author team for the Section 3 and 4 of the SPM-SYR and Topic 4 of the SYR has conducted a detailed, thorough and systematic assessment of all comments received for the FOD. The author team has also achieved an integration of relevant information derived from the individual chapters of the AR5 WGII.

In general, major issues raised by the Expert Reviewers and Governments have been appropriately addressed by the authors. Sections 4 of the SPM-SYR and Topic 4 of the SYR are clear, organized and well-structured.

Summary of Reviewers' and Governments' comments:

There were 655 reviewers' comments for topic 4 and 1217 for topics 3& 4 of SPM. Generally speaking, the comments were constructive, reasonable, and offered positive input deserving consideration. There were some areas of concern to reviewers and these concerns are summarized here:

Some responses needed further attention, as in some cases, the Authors' responses appear to represent an insufficient response, and in these cases the responses need to be accompanied by additional actions; also some responses need to be more precise.

- Several reviewers noted missing confidence levels and incomplete supporting information.
- A number of reviewers noted confusing, ambiguous or unclear ideas, concepts and statements. They suggested also that tables and figures needed to be improved.
- There are some important messages missing: adaptation policy; mitigation potentials / costs; clear summary of main findings; how to overcome the social and political barriers that have so far prevented ambitious action; detailed information on biomass and AFOLU.
- There were some overlaps between topics 3 and 4.
- Many of headline statement should be re-considered (revised, deleted, or clarified).
- There was lack of consistency with underlying WG reports. (e.g., avoid the terminology which was decided not to be used; options for mitigation and adaptation; regional grouping; introductory text on mitigation policies; financial flows and mitigation costs).
- Paragraphs on technology transfer and behavior were vague and unhelpful.

Assessment of Author team's response to review comments:

The Author team considered and responded properly to Expert Reviewers' and Governments' comments. In the final draft, figures and tables compile a large amount of very diverse information, derived from different chapters, and avoiding repetition and the overlapping of information. The confidence level of the statements was carefully revised. Additional explanation, rewriting or shortening of paragraphs was conducted in order to achieve greater readability and clarity. Specific thematic areas or sections of concern were improved, and more balanced section lengths were achieved. Tables and figures were improved considerably.

Assurance of Review Editor

Based on what is presented in this report I offer my assurance that all substantive Expert Reviewers' and Governments' comments for the Section 3 and 4 of the SPM-SYR and Topic 4 of the SYR were afforded appropriate consideration by the author team.

Signature:

Full Name: Kanako Tanaka

Date: October, 10th 2014





To the IPCC Chair

From: Jean Palutikof, Griffith University, Australia

Final Report from Review Editor of IPCC SYR AR5 Topic 2 and Article 2 box

SYR AR5 Topic 2

I was the Review Editor for Topic 2 with Sylvie Joussaume. Sylvie has submitted a joint Final Report on this section which I entirely support. Overall, the authors for Topic 2 took a very professional and well-organised approach to addressing the review comments. They were mindful of the commentary from the Review Editors, of the need to treat review comments with respect, and that their responses would eventually become a public document.

I have no concerns arising from the review comments. Sylie has outlined those topics that were a focus for reviewers and, as she points out, these have been well addressed.

Article 2 Box

There were around 250 expert and government review comments on the 2.5 pages of text in the first order draft Article 2 box. This high density of comments gives some idea of the importance of this box to reviewers. Areas of concern included:

- The general approach, including a tendency to conceptualise 2 degrees as a target, when in fact it is a limit which we seek not to exceed.
- The balance of description of the risks of climate change and the risks of mitigation. Many reviewers considered that this Box placed too much emphasis on the risks of mitigation.
- There was a sense amongst reviewers that the Box placed too great an emphasis on a risk-based approach.
- Reviewers considered that attempts to demonstrate interactions between mitigation, international development and sustainable development were unnecessary and irrelevant.
- Text attempting to explain the relationship between cumulative CO2 emissions and amount of warming was criticized as being too complex and difficult to understand.
- There was a sense that the text was too long and attempted to deal with too many topics which were not central to a consideration of Article 2. Suggestions were made for shortening.

The Article 2 box has been very extensively rewritten between the first order and final drafts. Thus many of the review comments are answered in a straightforward manner as text deleted or similar. Nevertheless, the authors have done a conscientious and thorough job of addressing review comments, for which they may be commended.

Overall, I am happy to sign off on my tasks as Review Editor for Topic 2 and the Article 2 box. All substantive expert and government review comments were afforded appropriate consideration by authors.

Signature:

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Full Name: Jean Patricia Palutikof Date: 12 October 2014

FINAL REPORT FROM IPCC SYNTHESIS REPORT AR5 REVIEW EDITOR (RE)

To the IPCC Chair

From:

Paulina Aldunce Assistant Professor Department of Environmental Sciences and Natural Resources University of Chile Santa Rosa Nº 11.315, La Pintana Casilla 1004. Santiago Phone: 6785928 . Fax: 6785929

and

Center for Climate and Resilience Research, CR2

FINAL REPORT FROM REVIEW EDITOR OF IPCC SYNTHESIS REPORT (SYR) AR5 **TOPIC 4 AND SECTIONS 3 AND 4 OF SPM**

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The author team for Sections 3 and 4 of the SPM-SYR and Topic 4 of the SYR has conducted a detailed, thorough and systematic assessment of all comments received for the FOD. The author team has also achieved an integration of relevant information derived from the individual chapters of the AR5 WGII.

In general, major issues raised by the Expert Reviewers and Governments have been appropriately addressed by the authors. Section 4 of the SPM-SYR and Topic 4 of the SYR are clear, organized and well-structured.

Summary of Reviewers Pand Governments Promments:

There were 655 reviewers gcomments for Topic 4 and 1217 for Topics 3 and 4 of the SPM. Generally speaking, the comments were constructive, reasonable, and offered positive input deserving consideration. There were some areas of concern to reviewers and these concerns are summarized below:

- Some responses needed further attention; in some cases, the Authorsqresponses appear to represent an insufficient response, and in these cases the responses need to be accompanied by additional actions; also, some responses need to be more precise.
- Several reviewers noted missing confidence levels and incomplete supporting information.
- A number of reviewers noted confusing, ambiguous or unclear ideas, concepts and statements. They also suggested that tables and figures needed to be improved.
- Some important messages are missing: adaptation policy; mitigation potentials / costs; a clear summary of main findings; how to overcome the social and political barriers that have so far prevented ambitious action; detailed information related to biomass and AFOLU.
- There were some overlaps between Topics 3 and 4.
- Many headline statements should be re-considered (revised, deleted, or clarified).
- There was a lack of consistency with underlying WG reports. (e.g., options for mitigation and adaptation; regional grouping; introductory text on mitigation policies; financial flows and mitigation costs).
- Paragraphs on technology transfer and behavior were vague and unhelpful.

Assessment of Author team's response to review comments:

The Author team considered and responded appropriately to Expert Reviewersq and Governmentsqcomments. In the final draft, figures and tables compile a large amount of very diverse information, derived from different chapters, and avoid repetition and the overlapping of information. The confidence level of the statements was carefully revised. Additional explanation, rewriting or shortening of paragraphs was conducted in order to achieve greater readability and clarity. Specific thematic areas or sections of concern were improved, and more balanced section lengths were achieved. Tables and figures were improved considerably.

Assurance of Review Editor

Based on what is presented in this report I offer my assurance that all substantive Expert Reviewersqand Governmentsqcomments for Sections 3 and 4 of the SPM-SYR and Topic 4 of the SYR were afforded appropriate consideration by the author team.

Paulina Aldunce Date: October, 10th 2014







Final Report from IPCC SYR AR5 Review Editor (RE)

To the IPCC Chair

From: **Sylvie Joussaume**

CNRS, IPSL/Laboratoire des Sciences du Climat et de l'Environnement, FRANCE

My review editor role for SYR has essentially concerned **the Introduction** and **Topic 2 on "Future climate changes, risks and impacts"**. The report on Topic 2 has been prepared with Jean Palutikof.

Introduction

The Introduction part of SYR received 80 comments from government and expert reviewers. They were all constructive with recommendations to improve the introductory character of this part and requirements to revise the box on "Risks and Uncertainty". Review comments were easily dealt with by the authors and led to two boxes clearly separating risks on one side and communication of certainty on the other side.

All review comments on the introduction part have been well taken into account and answered by the authors. No contentious issue was raised.

Topic 2

Topic 2 has received 553 comments from government and expert reviews. The SPM part related to topic 2 received about 800 comments.

These comments concern mainly structural aspects, improvement of text, issues raised on some content and improvements of figures and tables. In overall, RE have found the comments to be constructive and meant to improve the quality and consistency of the SYR.

Discussions at the Malaysian CWT-4 meeting allowed addressing the main issues and solve them and the final draft confirms that they could be addressed and answered. The Topic 2 authors have taken a constructive approach to addressing comments. They have proceeded in a systematic and collegial manner to address these, and the REs are of the view that the outcome is very positive. There were no contentious issues raised by the comments, and therefore addressing the issues raised by the reviews was relatively straightforward matter.

The main comments raised by the reviewers on content were:

- To add information on model types and model confidence
- To better inform on permafrost issue and risk for high carbon emissions as this is very relevant to policy makers.
- To provide a more consistent and systematic reference to the pre-industrial reference period
- To include a more systematic mention of several scenarios not only RCP8.5
- To improve structural aspects such as the introduction and consistency between content and section titles.

For the SPM topic 2 section, structural issues were mainly related to the need to add sub-sections, which was dealt easily by the team. The addition of key summary statements strongly improves narrative and answers the general recommendation to improve flow of information to policy makers. Some additional information was also strongly recommended on precipitation changes, on marine ecosystems and ocean acidification, on the role of models, and on economic impacts and was handled well by the writing team within the constraints of space. Maps of precipitation changes as well as figures on food and marine ecosystem were also added following reviewer comments.

The Review Editor team of SYR Topic 2 considers that all substantive expert and review comments were afforded appropriate consideration, well answered, and this has led to improvements in the SYR Topic 2 content.

Signature:

Full Name: SYLVIE JOUSSAUME Date: 10/10/2014

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Prof Jim Skea CBE FEI FRSA HonFSE Chair in Sustainable Energy

6 October 2014

Dr Rajendra Pachauri Chair, Intergovernmental Panel on Climate Change

Dear Patchy,

Review Editor's Comments on the Final Draft of the IPCC 5th Assessment Synthesis Report

I am writing to you in my role as Review Editor for the following elements of the Synthesis Report: a) general comments; b) introduction; c) the Article 2 Box; and d) the Summary for Policymakers. In all respects, it is my judgment that the authors' efforts have resulted in a text that is responsive to comments made at the expert/government review stage. All substantive comments have been afforded appropriate consideration by the writing team in accordance with IPCC procedures.

The issues identified in my preliminary reports dated 16 August 2014 (Article 2 and general); 27 August 2014 (Introduction) and 11 September 2014 (SPM) have now been addressed. Where reviewers' comments have been rejected, robust justifications have been supplied. Specific comments on each element of the Synthesis Report follow:

General

The implementation of responses to general comments is difficult to assess because substantial revisions have been made. However, the final draft reflects appropriate to responses to all material comments. The comments which had not been responded to at the time of my preliminary report have now been finalised.

Introduction

The authors have responded fully to Government and expert comments. As the introduction was substantially re-structured, it was not possible for authors to deal with all comments directly, but the nature of responses has been signalled appropriately.

Article 2 Box

The authors have responded fully to Government and expert comments. As the Box has been re-structured not all comments can be dealt with directly. But these have been signalled appropriately in the responses. Comments referring to the outcomes of delay (Art2-31 and Art2-69) have now been dealt with and any residual responses requiring clarification/completion have now been addressed.

SPM

The authors have responded fully to almost all substantive comments. As the text was revised substantially revised since the previous draft it is not simple to trace precisely how each individual comment has been addressed. However, the authors have gone with the spirit of the comments and have provided defensible arguments as to why certain comments have been rejected. All responses are now complete.

I hope this review has been helpful.

Yours sincerely,

Prof Jim Skea

Vice-Chair, IPCC Working Group III

Research Councils UK Energy Strategy Fellow.



To the IPCC Chair

From: Fredolin TANGANG, the National University of Malaysia

Final Report from Review Editor of IPCC SYR AR5 GENERAL COMMENTS ON WHOLE REPORT, SPM and Box on Art.2

Government and expert reviewers provided 219, 2681, and 121 comments for the general aspects of the whole report, the SPM and Box on Art.2 of the First Order Draft (FOD) of the IPCC SYR, respectively. These comments, together comments of other sections, became the basis of the improvement of FOD that led the Final Draft. REs had attended the CWT4 meeting and were provided the opportunity to interact with the Author Team in addressing the issues raised by expert and Government reviewers.

The Author Team has responded to all comments in these three elements and revised the corresponding sections accordingly. To fulfill my role as a Review Editor, I highlighted some other related issues in a Preliminary Report (dated on Sept 11, 2014) of these three parts of the report. In the Final Draft, the Author Team has addressed these issues. The following are my final comments on these three elements of the Final Draft of SYR.

General

The author team has considered all expert and Government reviewer substantive comments for the general aspects of the report and appropriate changes have been reflected in the Final Draft. At this stage there is no other contentious issue that has not been addressed by the Author Team.

SPM

With a total number of 2681 government and expert reviewer comments, it was certainly a real challenge to address all issues and reflect them in the Final Draft. However, the Author Team has successfully addressed all substantive issues and reflected these in the Final Draft. The issues that I have highlighted in my preliminary report have also been addressed in the Final Draft. I find there is no other contentious issue that has yet to be addressed by the team. Also, all 2681 comments have been afforded responses by the Author Team. In cases where comments were rejected, acceptable reasons were provided.

Box on Art.2

As in the other two sections, the government and expert reviewer comments on this section have been fully addressed by the Author Team. This led to the re-organization of the content of this section. As I indicated in my preliminary report, I did not find any substantial issue that has yet to be addressed by the Author Team. All comments have been afforded responses and in cases where the comments could not be accommodated, appropriate explanation were provided by the Author Team.

Signature:

Full Name: Fredolin Tangang

Date: October 8, 2014



To the IPCC Chair

From: Wenying Chen, Tsinghua University, China

Final Report from Review Editor of IPCC SYR AR5

2.1 "The basis on which projections are made" on Topic 2 "Future climate changes, risks and impacts"

And Topic 3 "Transformations and Changes in Systems"

I am pleased to confirm that all substantive expert and government review comments on IPCC SYR AR5 2.1 "The basis on which projections are made" and Topic 3 "Transformations and Changes in Systems" have been afforded appropriate consideration by the SYR writing team in accordance with IPCC procedures.

Signature:

Wenying Chen

Sept 30, 2014



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10th October 2014

To the IPCC Chair

Review Editor report on Topic 3 of the SYR AR5

I confirm that the authors have responded adequately to the substantive expert and government review comments for Topic 3 in accordance with IPCC procedures. The authors have worked very hard to produce a readable text that remains faithful to the AR5 chapters and summaries. The authors spent considerable effort in clarifying key terms and ensuring the SYR presents a forward looking synthesis around the topic of transformations.

My overall impression remains of an impressive SYR with many key insights. The text and figures have been substantially changed, so it is not possible to track all of the comments to new paragraphs and messages. Where possible, the text includes material that has already been approved by the IPCC and thus presents a clear line of sight to earlier findings.

Kind regards,

Dr Thomas E Downing CEO

Momes & Dowing







To the IPCC Chair

FINAL REPORT FROM REVIEW EDITOR OF IPCC SYNTHESIS REPORT (SYR) AR5

This document has been prepared based on Expert Reviewers' and Governments' comments and Authors' responses to the comments of the SYR AR5.

I participated in the 4th core writing team meeting and observed the process of taking account of reviewers' comments on first order draft for the finalization of the Synthesis report of AR5.

In general, major issues raised by the Expert Reviewers and Governments have been appropriately addressed by the authors.

Assurance of Review Editor

Based on what is presented in this report I offer my assurance that all substantive Expert Reviewers' and Governments' comments were afforded appropriate consideration by the author team.

Signature:

Full Name: Zbigniew KUNDZEUICZ

Date: 21 0 ct. 2014





To the IPCC Chair

From: ZHANG, Xiaoye, Chinese Academy of Meteorological Sciences

Final Report from Review Editor of IPCC SYR AR5 Topic 1: Observed Changes and their Causes and SPM

I didn't find substantive contentious or controversial issues were raised during the review process.

After attending the LA meeting and counsel lead authors at the meeting and thereafter on how to handle and reply major issues adequately in the text of the Report. I found that all substantive expert and government review comments have been afforded appropriate consideration.

Signature:

Full Name:

ZHANG, Xiaoye

Date: 8 Oct. 2014