



E-learning Reviewing of Draft IPCC Assessment Reports

Thursday, 07 June, 2018

Webinar 2: How to conduct an IPCC review?

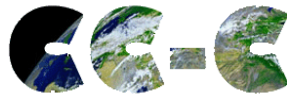
The webinar will commence shortly

E-learning Reviewing of Draft IPCC Assessment Reports

Thursday 7 June 2018 1-2 pm CEST/11-12 pm GMT + 2



Promoting sustainable development;
addressing climate change.



ClimateContact-
Consultancy



Webinar 2: How to conduct an IPCC review

Moderator:
Karen Morris, SSN



Presenters:
Leo Meyer, CC-C



Prof. Jean-Pascal
van Ypersele, UCLouvain



From Webinar 1 (How does the IPCC work) ²

- Intergovernmental Panel on Climate Change IPCC
- Installed by UN through World Meteorological Organization (WMO) and United Nations Environmental Programme (UNEP, now known as 'UN Environment') in 1988
- Organises every 5-7 years a scientific assessment of published literature on climate change, its impacts, and its response options
- By teams of scientists from all continents
- Primarily to inform the policymakers of the UN member states

Mandate:

“... to **assess** on a comprehensive, objective, open and transparent basis the **scientific, technical and socio-economic information** relevant to understanding the scientific basis of risk of human-induced climate change, its potential impacts and options for adaptation and mitigation.”

Actors in the Review Process

- **Expert Reviewers:** these experts volunteer to review part of an IPCC report (First and Second Order Drafts). They can nominate themselves and can be nominated by NGOs, academia, IPCC observer organisations, as well as by governments.
- **Governments:** participants to the « government » part of the « Expert and government » review. Governments review the Second Order Draft and the Final Draft of the Summary for Policymakers (SPM).
- **Authors of the relevant chapters:** they have to consider each review comment one by one, and justify the manner in which they take them into account.
- **Review Editors:** senior scientists with IPCC experience who accompany the author teams. They ensure that all substantive review comments receive appropriate consideration and ensure that genuine controversies are reflected adequately in the report.

The Review Process (1)

- (Zero-Order Draft: internal for authors only)
- First Order Draft: Expert Review, 8 weeks.
- Second Order Draft and First Draft of SPM: simultaneous Government and Expert Review, 8 weeks.
- Final Draft: Government Review of the final draft SPM.
- Authors must respond to all review comments – files made public after publication of the report.
- Review Editors have to sign off the comment and response files before the report can be accepted by the Panel.

The Review Process (2)

- An Expert or Government Reviewer can select one or more chapters, a section or just a sub-paragraph – no obligation to review the whole report!
- There is no lower or upper limit to the number of review comments.
- Government Focal Points are expected to upload one integrated review on behalf of their government, but they may consult as many experts as they deem necessary.
- Expert Reviewers may wish to send a copy of their comments to their Government Focal Point (see doc ‘Useful Links’).
- All Expert Reviewers are acknowledged with their names, affiliations and country in an Annex to the published IPCC report.

IPCC Procedures on Expert and Government Review

- “Include the best possible and latest scientific findings”
- “Should aim to involve as many experts as possible in the IPCC process”
- “Review process should be objective, open and transparent”

Review Comment Response Files: Example Taken from Africa Chapter AR5 WG II Report

IPCC WGII AR5 Chapter 22

FIRST-ORDER DRAFT

#	ID	Ch	From Page	From Line	To Page	To Line	Comment	Response
44	44283	22	1	0	86	0	Overall, it is difficult to review this chapter, since a number of sections are still missing, or only provided in bulleted form. In addition, errors are still present in the text, including language errors, incorrect or incomplete sentences, and typos. I look forward to reviewing SOD. (Emma Archer van Garderen, CSIR)	In the revised version we have completed assessment for incomplete sections and tried to improve the quality of the assessment.
45	48006	22	1	1	86	39	Although the effects of potential broadening of the Hadley Cell is called out in Chapter 1, that connection does not seem to be addressed directly in this chapter on Africa. (Patricia Jacobberger-Jellison, NASA)	Generally, space constraints prohibit the elucidation of synoptic features responsible for observations or changes, however, in some places where appropriate this has been done in the second order draft.
46	48007	22	1	1	86	39	The chapter does not include any discussion of impacts/potential increases in wildlife poaching as a consequence of drought and food security stressors, nor the impact on tourism if poaching increases. The chapter also does not seem to contain any discussion of wildlife encroachment onto agricultural lands due to climate stressors that reduce their food and water supplies, nor the economic impact that such encroachment has. (Patricia Jacobberger-Jellison, NASA)	There is very little literature on this and it is covered in the terrestrial ecosystems chapter.
47	46395	22	1	42	0	0	There should be a section on observed sea level rise trends given the number of large coastal cities that can be affected by SLR. (Andrew Mather, eThekweni Municipality)	The issue of sea level rise has been discussed in 22.2.2.1., 22.3.2.3., 22.3.2.3.1., 22.3.6.3., 22.4.4.6. and 22.5.2.
48	36607	22	1	51	2	16	I am suggesting the impact and vulnerability of climate change has to be assessed based on sectors in order to avoid mixing. (Girmaw Bogale, United Nations Economic Commission for Africa)	Thanks for the comment but because of the nature of the literature assessed we have decided to treat vulnerability and impacts in the same section.
49	35905	22	2	4	2	9	correct numbering (Precillia Ijang Tata epouse Ngome, Institute of Agricultural Research for Development)	The numbering was corrected
50	44282	22	2	8	2	8	Section 22.3.2.4 is rather confusing, in terms of structure and location. Surely this isn't a subsection of 22.3.3? How does this all fit together? I have also noted this in the section in text itself. (Emma Archer van Garderen, CSIR)	The structure of the chapter has been revised.
51	36608	22	2	26	2	42	The economics of adaptation includes all the cost benefit analysis of all the subsection of African Adaptation. The structure of the section will better if you put the economics of adaptation not as a sub-section of 22.2.4 rather as its own sub section of adaptation in Africa before sub-section 22.4.5 (Girmaw Bogale, United Nations Economic Commission for Africa)	The chapter structure has been revised and this topic is covered in the section 22.6.2. of this draft.
52	36129	22	3	0	86	0	Although this is the FOD, I think it is on track to be a well informed contribution. However, several sections still need extensive revisions/additions to make them consistent. In using case studies to make a case for climate change adaptation in Africa, the authors should not over-emphasize specific cases and localities, but there is need to also give a broader perspective over the whole Africa continent. It may also be necessary that when appraising progress in adaptation strategies and plans in Africa, at least one case should be highlighted over northern, southern, western and eastern Africa (i.e try to cover the full breadth and length of the continent, where possible). (Richard Anyah, University of Connecticut)	In the revised version we have tried to address these issues.
53	36726	22	3	3	0	0	The Executive Summary need to provide specific ranges of climate changes and impacts on various aspects of natural and human systems. As it is, the information is too general and does not provide much new knowledge on climate change and its impacts. The text in lines 51-54 is out of context. No one still needs to be told that Water is the primary medium through which Many of the fragile terrestrial and aquatic ecosystems in Africa are ... water dependent'. Can anyone think of a place and ecosystem which is not water dependent? (Hong Yang, Swiss Federal Institute for Aquatic Science and Technology (Eawag))	In the revised version we have tried to address these issues. The text has been revised considerably.
54	36752	22	3	20	0	0	Executive Summary. Africa is a vast continent with significant variations in natural and socio-economic conditions. Climate changes and their impacts, as well as the capacity of adaptation vary substantially among regions and countries. It is important to provide at least some information on regional variations in various aspects in the Summary. The information in the current version is too general. A regional break-down information should be presented in the text and tables and figures. (Hong Yang, Swiss Federal Institute for Aquatic Science and Technology (Eawag))	In the revised version we have tried to address these issues.
55	51217	22	3	20	0	0	Executive Summary -- In subsequent work on the executive summary, there are several aspects for the author team to consider further: 1st, for each key finding in bold text and wherever else relevant, the author team should provide line-of-sight references indicating the chapter sections in which a reader can find the traceable accounts--the author team's assessment of the state of knowledge--supporting the conclusions. 2nd, all calibrated uncertainty language assigned should be presented in italicized text. 3rd, where the author team presents a summary term for evidence OR agreement, the author team should consider presenting summary terms for BOTH evidence and agreement. There may also be cases where the author team finds it effective to present just the assigned level of confidence without explicit indication of assigned summary terms for evidence and agreement. (Katharine Mach, IPCC WGII TSU)	In the revised version we have tried to address these issues.
56	54834	22	3	20	0	0	Executive Summary - The author team should add chapter sections where these findings are discussed in detail. (Monalisa Chatterjee, IPCC WGII TSU)	In the revised version we have addressed this.
57	48658	22	3	20	37	35	A large number of statements in the first part of this chapter were along the lines "climate change could make the risk of X worse". In some paragraphs it seemed like "could" was in every sentence. According to the supporting text though the statement "climate change could make the risk of X better" would have been equally valid in many cases. In most of these cases I would guess that we don't know because simply no one has looked at it yet; you should make it clear that that is the situation then, as that is an extremely important message. (Dáithí Stone, University of Cape Town)	We have tried to incorporate this suggestion in the current draft and we will keep this in mind for the next draft.
58	35232	22	3	22	3	22	This is not true for precipitation; perhaps this sentence is meant to refer only to temperature? (David Rowell, Met Office Hadley Centre)	The section and key finding has been rewritten.
59	49827	22	3	22	3	22	"observed trends are consistent with projection". This does not prove causation (Vincent Gray, Climate Consultant)	The section and key finding has been rewritten.

IPCC Guidance for Reviewers (1)

- The purpose of the Expert Reviews is to ensure that the report is comprehensive, objective, and balanced.
- The IPCC procedures require that the review be carried out by experts. Prospective Expert Reviewers are requested to provide information on their relevant scientific and technical expertise when they register.
- This is not a public review and experts are required to sign and respect a confidentiality agreement.

IPCC Guidance for Reviewers (2)

- Review comments should focus on substantive issues and must be provided in English, using the Excel comments sheet provided by the review system.
- Constructive contributions are sought:
 - Considering the structure, comprehensiveness and balance in Chapters, including appropriate use of peer-reviewed literature;
 - Wherever possible, providing suggestions for revisions in terms of specific text and provide supporting evidence from the literature as appropriate;
 - Giving full citations for any suggested relevant papers;

IPCC Guidance for Reviewers (3)

- Considering ways of shortening the text without loss of relevant information;
- Considering ways of improving the presentation of material graphically or through tables;
- Avoiding suggesting revisions that would go beyond the Panel-approved outline for the Chapters of the Report;
- Recognizing that authors are required to work within page length constraints and must present a concise assessment of current knowledge, not a scientific review of how that knowledge was derived.

Language in the IPCC reports

- ‘Policy relevant but not policy prescriptive’
- Be cautious when you encounter verbs like ‘*must*’, ‘*should*’, ‘*have to*’ in case of statements describing policies or actions – unless phrased conditionally. Example:
 - “*To limit the warming with a probability higher than XX%, the carbon budget must not exceed XX GtC*” is OK.
 - But “*The carbon budget must not exceed XX GtC*” is not OK – it is policy prescriptive.
 - Uncertainty language is used by adding qualifiers in *italics*, such as ‘*likely*’ to relevant statements. These qualifiers should be reviewed as well. More on this in Webinar 3 on 19 June.

How to start a review of a report of >1000 pages – for first timers (1)

- For a First Order Draft (FOD): start with Executive Summaries of Chapters, pick and choose issues of interest to you.
- Dive into chapters and find the relevant sections; use the search function in pdf for finding catchwords.
- For a Second Order Draft (SOD): start with the SPM; pick your subjects; go to the Technical Summary (if there is one); then to Executive Summary and find the relevant statements; then go to chapters /sections
- Consider the texts, graphs, tables: understandable? Clear messages? Policy relevant – not prescriptive? Information missing? Parts that could be deleted?

How to Start a Review of a Report of >1000 pages – for First Timers (2)

You may wish to consult climate policy plans and measures of your country as a source for identifying policy-relevant issues. The website of UNFCCC (United Nations Framework Convention on Climate Change) is a useful source.

- For the least developed countries, there are NAPAs (National Adaptation Action Plans),
- and for all countries there are (I)NDCs; (Intended) Nationally Determined Contributions) plans under the Paris Agreement
- National reports of developing countries to the UNFCCC on emissions inventories and adaptation and mitigation measures

The Use of Literature Sources

When reviewing, pay attention to the literature references!

- Developing country reviewers can obtain peer-reviewed literature that is behind a paywall by sending a request to UNEP (UN Environment) through uneplib.helpdesk@unep.org with your full name and role in the report, relevant chapter(s).
- Grey literature sources not available online, and/or poorly referenced, and also articles accepted for publication, but not yet published can be obtained through the relevant Technical Support Unit (TSU).
- In your review comment you may provide relevant references to both peer-reviewed articles (preferred) and to 'grey' literature from governments, industry, NGOs. Quality will be checked by author teams. Non-English literature should have a summary in English.
- Blogs, social network sites, broadcast media, and personal communications are excluded as sources.

Effectiveness of Comments

- Authors have to go through thousands of comments – help them to work efficiently and effectively!
- Make your comment as precise as possible:
 - If possible provide concrete text proposals;
 - If you want to add text, also indicate what text to delete – authors have page length restrictions;
 - If text could be shortened /combined, suggest concrete text;
 - If you want to refer to literature sources, please provide the complete reference; in case of grey literature provide a web link if available.

What do Authors do with the Comments?

- Each comment must be considered (hundreds of comments for each chapter) by the author teams during (and after) a lead author meeting following a review period.
- Possible author responses: 'accepted', 'rejected' (+explanation why), 'combined with other comments', 'noted', 'thank you', 'rewritten'. Many variations...
- Difference between 'substantive' and 'editorial' sometimes difficult.
- Author responses on comments become publicly available after publication of the report.



Example of a ‘Bland’ Statement (headline from SYR AR5 2014)

SPM 4.4 Policy approaches for adaptation and mitigation, technology and finance

Effective adaptation and mitigation responses will depend on policies and measures across multiple scales: international, regional, national and sub-national. Policies across all scales supporting technology development, diffusion and transfer, as well as finance for responses to climate change, can complement and enhance the effectiveness of policies that directly promote adaptation and mitigation. {4.4}



Example of a 'Salient' Statement (headline from SYR AR5 2014)

SPM 1.1 Observed changes in the climate system

Warming of the climate system is unequivocal, and since the 1950s, many of the observed changes are unprecedented over decades to millennia. The atmosphere and ocean have warmed, the amounts of snow and ice have diminished, and sea level has risen. {1.1}

Judging Graphics

The MADE principle

Effective data visuals of scientific evidence are ones that are 'MADE'. That is, they consider the:

Message: Does the visual communicate a clear message?

Audience: Is the visual appropriate for the intended audience(s)?

Design: Does the visual use evidence-based design principles?

Evaluation: Has the visual been tested with the audience(s)?

From: <http://guidance.climatecognition.com/>

Example of a Complicated Graph (from WG III AR5 2014)

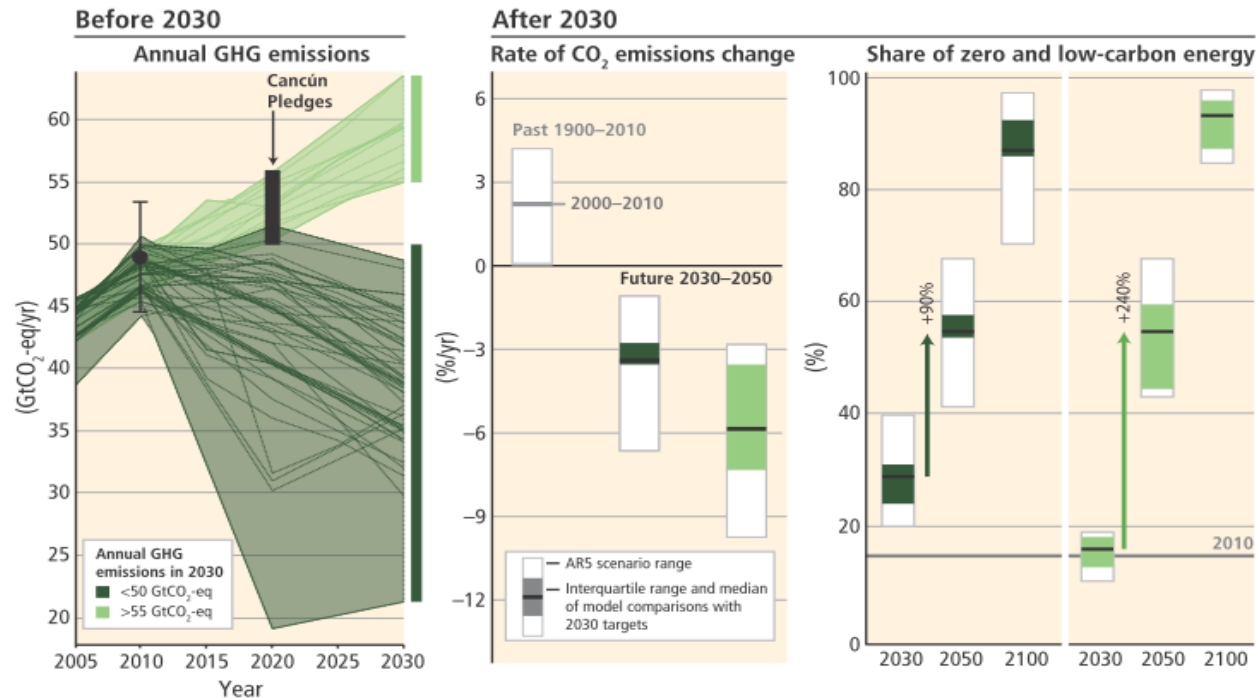
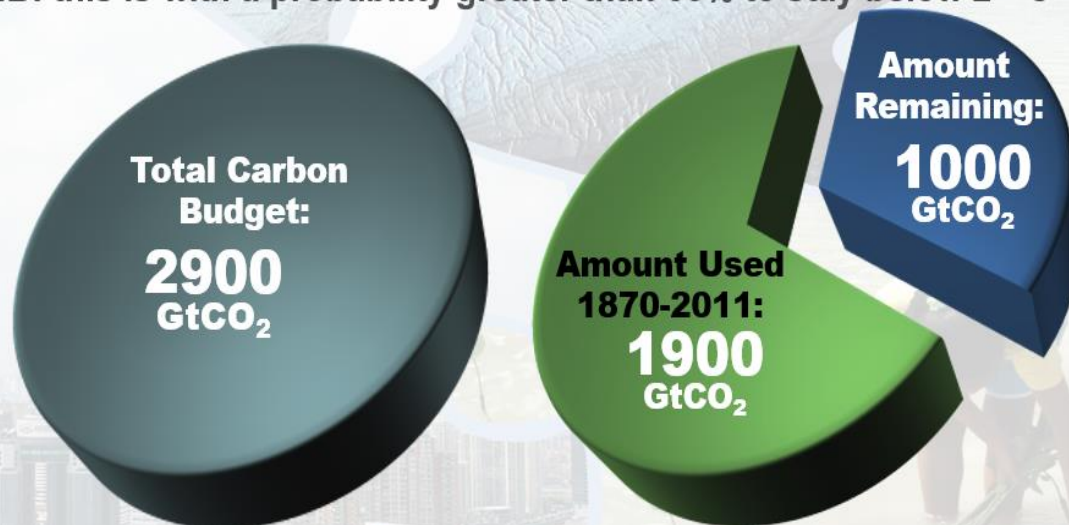


Figure SPM.12 | The implications of different 2030 greenhouse gas (GHG) emissions levels for the rate of carbon dioxide (CO₂) emissions reductions and low-carbon energy upscaling in mitigation scenarios that are at least *about as likely as not* to keep warming throughout the 21st century below 2°C relative to pre-industrial levels (2100 CO₂-equivalent concentrations of 430 to 530 ppm). The scenarios are grouped according to different emissions levels by 2030 (coloured in different shades of green). The left panel shows the pathways of GHG emissions (gigatonne of CO₂-equivalent per year, GtCO₂-eq/yr) leading to these 2030 levels. The black dot with whiskers gives historic GHG emission levels and associated uncertainties in 2010 as reported in Figure SPM.2. The black bar shows the estimated uncertainty range of GHG emissions implied by the Cancún Pledges. The middle panel denotes the average annual CO₂ emissions reduction rates for the period 2030–2050. It compares the median and interquartile range across scenarios from recent inter-model comparisons with explicit 2030 interim goals to the range of scenarios in the Scenario Database for WGIII AR5. Annual rates of historical emissions change (sustained over a period of 20 years) and the average annual CO₂ emission change between 2000 and 2010 are shown as well. The arrows in the right panel show the magnitude of zero and low-carbon energy supply upscaling from 2030 to 2050 subject to different 2030 GHG emissions levels. Zero- and low-carbon energy supply includes renewables, nuclear energy and fossil energy with carbon dioxide capture and storage (CCS) or bioenergy with CCS (BECCS). [Note: Only scenarios that apply the full, unconstrained mitigation technology portfolio of the underlying models (default technology assumption) are shown. Scenarios with large net negative global emissions (>20 GtCO₂-eq/yr), scenarios with exogenous carbon price assumptions and scenarios with 2010 emissions significantly outside the historical range are excluded.] (Figure 3.3)

Example of a Clear Graph (based on AR5)

The window for action is rapidly closing

65% of the carbon budget compatible with a 2° C goal is already used
NB: this is with a probability greater than 66% to stay below 2° C



NB: Emissions in 2011: 38 GtCO₂/yr

AR5 WGI SPM

The Mechanics of Reviewing

- A separate note is provided to you with step-by-step guidance on how to register as an Expert Reviewer. In short:
- Reviews are announced on the IPCC home page www.ipcc.ch;
- You have to register and obtain an account with a username and password;
- Experts have to indicate their expertise;
- A confidentiality agreement must be signed;
- Any serious request for registration is accepted;
- All comments must be written in English in a special Excel sheet;
- Deadlines are strict.

Some Final Messages

- Expert Reviewers are key to the quality of IPCC assessment reports – Expert Reviewers can add regional and local scientific information that is important to your community.
- Government Reviews are key to the policy relevance and usability of IPCC Assessments.
- It is easy to be accepted as an Expert Reviewer. You don't need to be a renowned scientist with lots of publications – but you should specify your expertise or interest related to the chapter(s).
- Don't hesitate to register as an Expert Reviewer for IPCC reports and make your perspectives visible – see doc 'Useful Links' for links on the FCFA website.

Disclaimers

- *Future Climate for Africa (FCFA) can not be held liable for any action or decision taken by the IPCC; conversely, the IPCC can not be held liable for the content of this course- that is the responsibility of FCFA and the presenters.*
- *Participants can not derive any rights from this course with regard to the handling of review comments by the IPCC author teams.*

Thank You for Your Attention!

- *Now:* Q&As follow (15 minutes).
- *Later:* you may wish to send other questions to info@southsouthnorth.org **by 15 June**; these will be handled at the Webinar on 19 June.
- *Next and Third webinar* will include: reviewing uncertainties and robustness of IPCC statements; specific issues for Africa, 19 June 2018 1-2 pm CEST/11 am – 12 pm GMT +2.