

#	ID	Ch	From Page	From Line	To Page	To Line	Comment	Response
1	57635	21	0	0	0	0	Please refer to a paper provided via supporting material: jcli-d-12-005602E1-early online release.pdf (ZONG-CI ZHAO, National Climate Center)	The paper will be referenced if appropriate in the revised chapter.
2	58164	21	0	0	0	0	General Comments on Chapter 21. Regional Context: This chapter is important because it presents the definition of the regional context, the synthesis of key regional issues as the vulnerabilities & impacts, adaptation and regional aspects of physical climate system as the atmosphere & land surface, oceans & sea levels, air quality and cryosphere. Also, the impressive part in this chapter is 21.5 for the critical analysis of approaches to regional impacts, adaptation and vulnerability studies & their uncertainties. Table 21-1 for the dimensions of the institutions and actors involved in climate change decision-making for different domains is impressive too. Table 21-4 (and its notes) for the dimensions of assessments of impacts & vulnerability and of adaptation drawn upon to serve different target audiences are impressive and important. Also, Figure 21-4 and Figure 21-5 for discussing the annual surface air temperature changes and annual precipitation are very impressive and updated. Figures 21-9, 21-11, 21-12 and 21-15 are prepared with high quality and presents the scientific aspects in an impressive way. Box 21-2 for the observed and simulated variations in past and projected future annual average precipitation and temperature over five African regions is impressive. Also, Box 21-3 which presents the observed and projected changes in annual average temperature and precipitation over Africa is impressive & updated too. Figure RC-1 and RC-2 illustrates the change in annual temperature and precipitations for the Climate Research Unit (RCU) observations from late-20th century through the late-21st century using different models is impressive. (Mounir Wahba Labib, Third National Communication (TNC) Project)	Thank you for the positive comments
3	58165	21	0	0	0	0	Supplementary Material: National and International Groupings Referred to in Chapter 21: The important part in this chapter is the Table S21-2 for countries and territories of the world. These data and information were collected from different international sources. Really, it is impressive. (Mounir Wahba Labib, Third National Communication (TNC) Project)	Thank you for the positive comments
4	60347	21	0	0	0	0	Check that "degrees Celsius" are always marked as "°C" (on several occasions the ° sign is missing) (Andrew Ferrone, Public Research Centre - Gabriel Lippmann)	Acknowledged, final copy editing will be done by the publisher
5	74294	21	0	0	0	0	As the Chapter 21 serves as an introduction to the regional analysis chapters and aims both to cover the climate science that served as input into the Regional Chapters, the chapter presents the methods used and outlines examples from the Regional work. The Chapter crosses between physical and social/economic science frequently. The Chapter contains much interesting material in the chapter but it is not an easy read in many places. In general the material could be shortened and focused in some places. The figures are not all well linked to text. Authors should critically consider which are necessary. The text-rich figures, tables and boxes are dense with information but detract from the conclusions in the chapter due to the absence of close linkage to the text and the poor captioning. We recommend: 1) a strong edit to improve the language 2) clarifying of the figure captions. The language in much of the document obscures the synthesis and information within the text. The style of putting technical information in parenthesis in the middle of sentences and in the middle of captions also obscures the message. This combined with the long sentences and complex sentence structure makes the document difficult to read. It will not be accessible to policymakers. The figure captions would be better if the figure captions linked better with the text and included an initial phrase that highlighted the purpose of the figure. (UNITED STATES OF AMERICA)	We agree with the substance of the comments, and there has been a substantial re-write and shortening of the chapter by ~50% and addresses these concerns.
6	74295	21	0	0	0	0	For section 21.5.1, Vulnerability and Impact analysis.... much of what is stated here is not strictly pertinent to a Regional Context - it's quite general. Is it covered elsewhere in the text? (UNITED STATES OF AMERICA)	While not always directly tied to a specific region, it does address issues that are relevant to regional IAV and are thus considered important to be included. This section has undergone a substantial rewrite and shortening by ~2/3rds, which further addresses this concern.
7	74296	21	0	0	0	0	hope that acronyms are defined on first occurrences in chapters so they better stand alone; otherwise the document becomes extremely burdensome to follow or digest in doable bits (UNITED STATES OF AMERICA)	Acknowledged, final copy editing will further address this
8	74297	21	0	0	0	0	Section 21.4 is quite readable. However there is a rather abrupt transition in writing style at the beginning of section 21.5 (the latter being more technical and dense). (UNITED STATES OF AMERICA)	The substantial rewrite and shortening of 21.5 will address this.
9	74298	21	0	0	0	0	The authors ought to better introduce "internal variability" in the chapter or refer to a fuller explanation of that term elsewhere (UNITED STATES OF AMERICA)	A link to the relevant glossary definitions has been included.

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10	74299	21	0	0	0	0	The executive summary contents only loosely reflect the topics within the chapter and are not in the same order. The organization of the chapter, and its flow, would be more logical if the executive summary, introduction, and contents, were in roughly the same sequence. (UNITED STATES OF AMERICA)	The executive summary has been rewritten
11	74300	21	0	0	0	0	The Oceans/Sea level section (p. 27), Air Quality (p. 28) and Cryosphere sections (p. 29) are nicely written, easy to grasp. Other sections should emulate..... (UNITED STATES OF AMERICA)	The shortening and rewrite of the chapter should address this issue.
12	74301	21	0	0	0	0	This chapter is very difficult to read and won't be accessible to policy makers in its current form. It needs strong editing. Figures and their captions and linkage to text needs considerable improvement. The overall text needs to be shortened. (UNITED STATES OF AMERICA)	The chapter has been substantially shortened and rewritten.
13	74302	21	0	0	0	0	Why aren't the possible linkages as described in publications between changing weather patterns and retreating Arctic sea ice discussed? This is quite relevant to regional decision making. (UNITED STATES OF AMERICA)	These are assessed well in WG1, and better served there than space would allow in this chapter. To include it in this regional context chapter would require a detailed section that is not appropriate in terms of the chapters purpose or length constraints (i.e. it is something that should be covered in the polar regions chapter).
14	78519	21	0	0	0	0	This climate material of this chapter focuses heavily on temperature and precipitation. Why? WGI does it because that is what they have observations for and that is what they have always done. But in this WGII chapter I think it would be useful to ask why those are considered the relevant variables to discuss when considering regional aspects of the climate system. I think temperature is easy to explain (global *warming*). Precipitation is harder. A lot of daily weather forecast and essentially all of seasonal forecasting are centred around precipitation, and the climate variability that is the concern of infrastructure design is usually related to precipitation. But does this extrapolate to a warming future? Certainly in some, if not most, areas the dominant determinant of hydrological changes will be temperature. In areas with snow and ice it is obvious. In other areas, note that a simple back-of-the-envelope calculation suggests that a 4C increase in temperature will need a ~26% increase in rainfall to maintain the surface hydrological balance, which is beyond what any climate model is projecting. I am not saying you should dump the precipitation maps (necessarily), but only that the value of having this chapter in WGII will only be realised if such questions are posed. Otherwise presenting loads of maps of just temperature and precipitation simply indicates that this is either all that the physical climate community can offer or that someone the physical climate community knows better as to what climate information anyone actually needs. (Dáithí Stone, University of Cape Town)	There are two relevant aspects to this comment: with regard to why a dominance on precip and temp, this is because the IAV community work mostly with this as that's what WG1-science typically provides. On the question that "dominant determinant of hydrological changes will be temperature" - that is a proposition that may be true in some / many regions, but by no means is necessarily true for other/many regions. The proposition made in this comment is probably an over-generalization in our view, and the literature to support an indepth assessment of this is a) best suited to WG1, and b) not a major purview of this chapter. We would disagree with the comments concluding inference.
15	78532	21	0	0	0	0	I am not sure how you are in terms of page limits, but either way it seems to me that a lot of the material could be condensed. (Dáithí Stone, University of Cape Town)	The chapter has been substantially shortened and rewritten.
16	78533	21	0	0	0	0	This chapter has changed a lot since the FOD. It has now diverged markedly from the plenary approved outline. Most of the chapter is taken up discussing global and conceptual issues covered in WGI, Ch2, and Ch14-17, without the regional link expected from the title or the outline. I found the FOD direction more relevant to the opening chapter of Part B. (Dáithí Stone, University of Cape Town)	The chapter is about regional context which necessarily must address concepts that have global relevance. We believe the revised chapter better conveys these issues.
17	78534	21	0	0	0	0	This chapter is more focused on the physical climate system than I had expected it to be, given that it is intended to distill regional issues across the domains covered by the three Working Groups. (Dáithí Stone, University of Cape Town)	The chapter has been substantially shortened and rewritten, and this has brought a more balanced approach.
18	81439	21	0	0	0	0	Many figures and captions are highly technical and it will be very difficult to understand the information provided especially for non-expert readers. Some maps and charts are too small and too detailed to make effective use of the visual illustration of the data. The author team is strongly encouraged to consider using only the most important and effective figures and tables to present key and synthesized findings. (Yuka Estrada, IPCC WGII TSU)	The number of figures has been reduced by about 1/3rd.
19	81440	21	0	0	0	0	Robinson projection is the recommended projection for global maps. Please ensure this projection is used wherever possible to have a consistent presentation across the volume. (Yuka Estrada, IPCC WGII TSU)	The projection of those maps generated for the chapter will use the IPCC selected projection. Where maps are drawn from published material, the source projection is maintained.
20	83124	21	0	0	0	0	1) Overall -- The chapter team has developed a solid assessment in its 2nd-order draft. In the final draft, the chapter team is encouraged to continue its prioritization of compact and rigorous assessment, effective and comprehensive tables and figures, and high specificity in examples given. (Katharine Mach, IPCC WGII TSU)	The chapter has been substantially shortened and rewritten, and this has brought a more balanced approach.

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21	83125	21	0	0	0	0	2) Coordination across Working Group II -- In developing the final draft of the chapter, the chapter team should continue to ensure coordinated assessment, both in the chapter text and at the level of key findings. As appropriate, cross-references to the sections of other chapters and/or their assessment findings should be used, reducing overlaps and harmonizing assessment. Generic references to entire chapters should be avoided if possible, in favor of specific chapter references. (Katharine Mach, IPCC WGII TSU)	The section specific referencing has been addressed.
22	83126	21	0	0	0	0	3) Harmonization with the Working Group I contribution to the AR5 -- In developing the final draft, the chapter team should also ensure all cross references to the Working Group I contribution are updated, with discussion of climate, climate change, and climate extremes referencing the assessment findings in that volume. (Katharine Mach, IPCC WGII TSU)	WG1 cross references are being incorporated.
23	83127	21	0	0	0	0	4) Tightening and shortening the chapter's assessment -- As the author team prepares the next draft, it should continue to condense and tighten the assessment wherever possible. The chapter will be much more effective and widely read if it is substantially shorter. Ideally, the text of the chapter should be reduced by 50%, ensuring also each figure really adds value to the assessment. Across all sections, repetition should be reduced, and cross-references should be used more extensively, with overlap with other chapters reduced heavily. (Katharine Mach, IPCC WGII TSU)	The chapter has been substantially shortened and rewritten, and this has brought a more balanced approach.
24	83128	21	0	0	0	0	5) Characterization of future risks -- In providing the regional context for the chapters that follow, the chapter team may wish to consider risks of climate change for what can be considered two eras. Some risks become relevant in the next few decades, during which time projected temperatures do not vary substantially across socioeconomic/climate scenarios. These coming decades can be considered an era of climate responsibility, and adaptation can be considered a primary means of reducing risks during this time. In contrast, mitigation choices made now and in the coming decades will be important in determining the level of climate change realized in the 2nd half of the 21st century and beyond. This longer-term period can be considered an era of climate options. Mitigation and adaptation are both relevant for risk reduction over this time frame. (Katharine Mach, IPCC WGII TSU)	The near term / long term issues are embedded in the discussion. More detailed treatment is not practical in the face of reducing the length by 50%
25	83129	21	0	0	0	0	6) Informing the summary products -- To support robust and insightful summary products for the report, the chapter team is encouraged to maximize nuance and traceability in its key findings, continuing to use calibrated uncertainty language effectively. In addition to nuanced characterization of future risks (see the previous comment), the chapter team is encouraged to consider themes emerging across chapters, indicating for example how extreme events have demonstrated adaptation deficits and vulnerabilities to date and may relate to future risks, how limits to adaptation may be relevant in the context of this chapter, how multidimensional inequality is relevant in the context of climate change, how adaptation experience has been relevant to date, and how interactions among mitigation, adaptation, and sustainable development may occur. The chapter team is also encouraged to consider further informing box SPM.4 within the summary for policymakers, as well as table SPM.2. (Katharine Mach, IPCC WGII TSU)	It is not clear what "maximise nuance" practically means. In the revisions and major length reduction of the chapter we have sought to address these issues to the extent possible.
26	83130	21	0	0	0	0	7) Report release -- The chapter team should be aware that the final drafts of the chapters will be posted publicly at the time of the SPM release, before final copyediting has occurred. Thus, the chapter team is encouraged to continue its careful attention to refined syntax and perfected referencing. (Katharine Mach, IPCC WGII TSU)	Noted.
27	84763	21	0	0	0	0	GENERAL COMMENTS: I congratulate the author team for all their work on their SOD, recognizing that there is more work to be done. The chapter text is too long, and would greatly benefit from an edit aimed at tightening the discussions significantly. When considering the suite of review comments, please look for opportunities to refine and focus the text in revision. Please see my detailed comments for suggestions related to specificity of ES findings and traceable accounts, refining figures and tables, and various specific clarifications. (Michael Mastrandrea, IPCC WGII TSU)	Noted.
28	84764	21	0	0	0	0	SUMMARY PRODUCTS: In preparing the final draft of your chapter and particularly your executive summary, please consider the ways in which your chapter material has been incorporated into the draft SPM and TS. Are there opportunities for presenting chapter findings and material in a way that further supports broad themes highlighted in the summary products and that facilitates additional cross-chapter synthesis in specific findings or figures/tables? Do the existing summary product drafts suggest additional coordination that should occur between Chapter 21 and other chapters at LAM4? (Michael Mastrandrea, IPCC WGII TSU)	We have substantially revised the ES in the current revisions for the interim TSU deadline, and will continue to refine.

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29	85224	21	0	0	0	0	At last a Chapter worth reading. They have come to realise that climate is actually not only regional but even microregional. It is unfortunately burdened by the radiation theory of the climate which downplays the major climate influences which are air pressure, wind speed and direction, cyclones and anticyclones, air and ocean movements evaporation of water, cloud formation and precipitation. There is a refreshing admission of our current ignorance of many of the problems and much food for thought. The Supplement is also valuable (Vincent Gray, Climate Consultant)	Thank you for the comment.
30	78662	21	1	1	0	0	Chapter title needs to change from "regional context" as the current scope of the chapter is clearly beyond regional issues. Many important conclusions from this chapter seem to be global in nature as is evident from the set of statements in the executive summary. This chapter carries very important information for policy makers. If the chapter title remain "regional context", the important information will not reach the right audience. (Food and Agriculture Organization of the United Nations (FAO))	We are unfortunately constrained to work with this title.
31	74303	21	1	11	1	11	The text is missing country affiliation for Grace Redmond. (UNITED STATES OF AMERICA)	Noted.
32	78495	21	2	28	0	0	This ES is much more heavy on the physical aspects of climate change, and less on adaptation, vulnerability, mitigation, etc., than I was expecting. Vulnerability does make some appearances, but they are scattered about. (Dáithí Stone, University of Cape Town)	The chapter has been substantially shortened and rewritten, and this has brought a more balanced approach.
33	78649	21	2	28	0	0	Many busy readers read only sentences in bold in the executive summary. There are a number of statements (in bold) that do not have regional context. Many of them seem to be better placed in other chapters of WGII or WGI. The authors should carefully revise the messages carried in the executive summary. The messages should be consistent with the scope of the chapter which is regional context. (Food and Agriculture Organization of the United Nations (FAO))	The ES has been substantially revised.
34	83131	21	2	28	0	0	Calibrated Uncertainty Language in the Executive Summary -- For all key findings in the executive summary, especially the bold statements at the start of each paragraph, the chapter team should indicate its degree of certainty in the conclusions through use of calibrated uncertainty language. Additionally, all calibrated uncertainty language use should be italicized for clarity. (Katharine Mach, IPCC WGII TSU)	The ES has been substantially revised.
35	83132	21	2	28	0	0	Tightening and Shortening the Executive Summary -- The executive summary will be most effective if it is short and nuanced. The chapter team should reduce the executive summary to 2.5 pages maximum, keeping the paragraphs that most richly communicate the core findings of the assessment. (Katharine Mach, IPCC WGII TSU)	The ES has been substantially revised.
36	83133	21	2	28	0	0	Harmonization with the Final Working Group I Contribution -- For any statements originating from the working group I contribution, the chapter team should ensure that the conclusions are updated to reflect the final draft of the report and its key findings. (Katharine Mach, IPCC WGII TSU)	The text has been cross referenced with the final draft of WG1.
37	83134	21	2	28	0	0	Topical Focus of the Executive Summary -- Given that the SSPs are hardly used in chapters 22-30, treatment of them within the executive summary could be reduced. (Katharine Mach, IPCC WGII TSU)	The ES has been substantially revised.
38	84765	21	2	28	0	0	Executive Summary: Calibrated uncertainty language is needed throughout the executive summary and must be added in the final draft of the chapter. I would also recommend further thought as to how the executive summary can most clearly communicate the findings of the chapter. The current draft contains good material, but I feel that the clarity of the presentation can be much improved, reducing redundancy and length. Please also carefully check the line of sight to underlying chapter sections throughout the executive summary, and ensure that indicated chapter sections provide clear traceable accounts and support for the presented findings. In this context, there are a few cases where support in the chapter text is not clear (see specific comments). (Michael Mastrandrea, IPCC WGII TSU)	This has been addressed in the rewrite and substantial shortening of the chapter.
39	83135	21	2	30	2	30	Exactly what is meant by "acutely" here may not be clear, and alternative wording should be considered. (Katharine Mach, IPCC WGII TSU)	The ES has been substantially revised.
40	83136	21	2	30	2	43	Lines 30-33 and 40-43 are overlapping, and it may be best to combine the paragraphs and reduce overlap accordingly. (Katharine Mach, IPCC WGII TSU)	The ES has been substantially revised.
41	84766	21	2	30	2	43	Please reduce this introductory material in the executive summary, as this is better placed in the introduction section of the chapter itself. (Michael Mastrandrea, IPCC WGII TSU)	The ES has been substantially revised.
42	80633	21	2	30	6	11	In the Executive Summary, there are many contents belongs to WGI and WGIII, should delete all contents which have no connection with regional impacts and vulnerability. (Jiahua PAN, Chinese Academy of Social Sciences)	The ES has been substantially revised.

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43	80634	21	2	30	6	11	The Executive Summary is too lengthy, it should be shorten within 1.5 pages. (Jiahua PAN, Chinese Academy of Social Sciences)	The ES has been substantially revised.
44	80635	21	2	30	6	11	In the Executive Summary, the emphasis of uncertainties is commendable, however, the author should also cite the cases in literatures in which perple successfully adapt to impacts. (Jiahua PAN, Chinese Academy of Social Sciences)	The ES has been substantially revised.
45	74304	21	2	36	0	0	What about sea level rise? (UNITED STATES OF AMERICA)	The ES has been substantially revised.
46	83137	21	2	36	2	36	Exactly what is meant by "assuredly" here may not be clear, and alternative wording should be considered. (Katharine Mach, IPCC WGII TSU)	The ES has been substantially revised.
47	83138	21	2	37	2	37	The phrase "therefore an imperative" may be overly prescriptive, and alternative wording could be considered. (Katharine Mach, IPCC WGII TSU)	The ES has been substantially revised.
48	78479	21	2	37	2	38	You could even point out here that the UNFCCC says so. (Dáithí Stone, University of Cape Town)	The ES has been substantially revised.
49	65156	21	2	45	2	46	In the heading: " There is-----world", the terms adaptation, vulnerability and impacts should better follow the sequence, impacts, vulnerability and adaptation, as is usally the practice and followed also in this chapter. Paragraph under the heading should accordingly be modified. (Muhammad Munir Sheikh, Global Change Imapct Studies Centre (GCISC))	The ES has been substantially revised.
50	83139	21	2	45	2	49	Is it possible to communicate more richly the core insights of this chapter here? (Katharine Mach, IPCC WGII TSU)	The ES has been substantially revised.
51	84767	21	2	45	2	49	This finding is fairly vague--please consider ways to focus the points being made. (Michael Mastrandrea, IPCC WGII TSU)	The ES has been substantially revised.
52	78480	21	2	47	2	49	This last sentence needs to be clarified. I could read it to say that attribution analyses find that it is *very likely* that humans have undergone physiological changes in response to past climate change. (Dáithí Stone, University of Cape Town)	The ES has been substantially revised.
53	74305	21	2	48	0	0	The term "autonomous" is not clear here. Please use an alternative term. (UNITED STATES OF AMERICA)	The ES has been substantially revised.
54	83140	21	2	48	2	48	Casual usage of "very likely" should be avoided, as it is a reserved likelihood term. If the term here is a likelihood term, the chapter team should consider if a level of confidence would be more appropriate. (Katharine Mach, IPCC WGII TSU)	The ES has been substantially revised.
55	80636	21	2	48	2	49	Human adaptation is mainly as autonomous response. SUGGESTION: change "in some regions" as "in most regions". (Jiahua PAN, Chinese Academy of Social Sciences)	The ES has been substantially revised.
56	83141	21	2	51	2	51	It would be preferable to indicate more specifically what is meant by "need to be made"--"are made"? Additionally, decisions are made across scales, and it might be clearer to specifically indicate what scales are meant here. (Katharine Mach, IPCC WGII TSU)	The ES has been substantially revised.
57	78481	21	2	51	2	52	Given that there are an infinite number of possible defintions of regions and only a finite number of useful scales for political decisions, is this state not trivial? (Dáithí Stone, University of Cape Town)	The ES has been substantially revised.
58	84768	21	2	51	2	54	This material is not covered in section 21.3.2. Please provide appropriate line of sight, perhaps to parts of section 21.2. (Michael Mastrandrea, IPCC WGII TSU)	The ES has been substantially revised.
59	57629	21	2	51	3	2	It should consider the natural and geographical characteristics also. (ZONG-CI ZHAO, National Climate Center)	The ES has been substantially revised.
60	83142	21	3	4	3	4	Casual usage of "very likely" should be avoided, as it is a reserved likelihood term. If the term here is a likelihood term, the chapter team should consider if a level of confidence would be more appropriate. Also, is it possible to indicate why, more substantively, these phenomena are crucial? (Katharine Mach, IPCC WGII TSU)	The ES has been substantially revised.
61	78650	21	3	12	0	0	This conclusion does not seem to have regional context. It should be discussed in other chapters of WGII or WGI. (Food and Agriculture Organization of the United Nations (FAO))	The ES has been substantially revised.
62	83143	21	3	15	3	16	"low confidence" and "medium confidence" as calibrated terms should be italicized. (Katharine Mach, IPCC WGII TSU)	The ES has been substantially revised.
63	66967	21	3	16	3	16	low to medium' should be in italics, for parity with other chapters. (Peter Burt, University of Greenwich)	The ES has been substantially revised.
64	78482	21	3	17	3	18	How does the second half of this sentence relate to the first half? (Dáithí Stone, University of Cape Town)	The ES has been substantially revised.
65	78651	21	3	20	0	0	This conclusion does not seem to have regional context. It should be discussed in other chapters of WGII or WGI. (Food and Agriculture Organization of the United Nations (FAO))	The ES has been substantially revised.

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66	69621	21	3	20	3	22	This conclusion should be exactly the same as in WGI. This means skipping the latter part of this conclusion: "and that this warming is not due ...alone". It is redundant and does not lead to more information. (NETHERLANDS)	The ES has been substantially revised.
67	69622	21	3	20	3	26	Are ALL statements in this paragraph supported by the material in WG I, Chapter 10?? (NETHERLANDS)	The ES has been substantially revised.
68	78484	21	3	20	3	26	Is this paragraph needed? It is partly redundant with the following paragraph (and thus could be integrated), while the statement on global changes seems out of place in this chapter. (Dáithí Stone, University of Cape Town)	The ES has been substantially revised.
69	83144	21	3	20	3	26	It may be preferable to weave key findings from working group 1 into presentation of conclusions originating from this chapter as well. (Katharine Mach, IPCC WGII TSU)	The ES has been substantially revised.
70	84769	21	3	20	3	26	It is odd to include a WGI finding in this chapter's executive summary. This material should be included in the chapter in appropriate context, but please delete from the ES. (Michael Mastrandrea, IPCC WGII TSU)	The ES has been substantially revised.
71	60348	21	3	22	3	24	These sentences seem not to be inline with conclusions from WGI. Please adopt to make the findings not contradicting. (Andrew Ferrone, Public Research Centre - Gabriel Lippmann)	The ES has been substantially revised.
72	69623	21	3	23	3	24	Please change the sentence "It is also likely .... Cirtculations" to "It is also likely that the human influence has altered sea level pressure patterns globally". This sentence is consistent with WGI Chpt 10. The addition "related circulations" is too vague. (NETHERLANDS)	The ES has been substantially revised.
73	74306	21	3	28	0	0	This section is cumbersome. Please tighten wording including the summary in bold. (UNITED STATES OF AMERICA)	The ES has been substantially revised.
74	69624	21	3	28	3	45	Are ALL statements in this paragraph supported by the material in WG I, Chapter 3?? (NETHERLANDS)	The ES has been substantially revised.
75	84770	21	3	28	3	45	Please provide line of sight for this paragraph. (Michael Mastrandrea, IPCC WGII TSU)	The ES has been substantially revised.
76	84774	21	3	28	5	16	There are a number of paragraphs on pages 3 through 5 covering different elements climate model projections in a somewhat fragmented and overlapping way at present. Please consider ways to boil down and integrate this material into a clearer set of key messages about sources of uncertainty in future projections, what aspects of projections are viewed as robust, where there is variation in results across models, etc. (Michael Mastrandrea, IPCC WGII TSU)	The ES has been substantially revised.
77	85221	21	3	29	3	26	It is not possible to measure the average temperature of the earth's surface. The Mean Global Surface Anomaly Record is a very poor substitute as each point on the curve applies to a multiple average of a different set of non standard unrepresentative samples. It does seem to be affected by gross natural cahnges like solar changes, oceaan oscillations and large volcanic eruptyions, but it is also influenced byh urban developement and land use change and each point shold be accompanied by plausible estimates of its accuracy. The supposed "warming" you refer to depends parthgly on which sequence you choose to select. You do not seem interseted in recent trends, which for the past 15 years have been negligible or the fact that the few decimals of a degree that you claim has a very low statistical significance. You are also oblivious to the recent very cold winter temperatures in the Northern Hemisphere (Vincent Gray, Climate Consultant)	The ES has been substantially revised.
78	78483	21	3	30	3	31	The extrapolation to flood risk is a bit shaky. Spring flood risk in central-to-northern North America and Eurasia, for instance, has little to do with precipitation intensity (unless you are thinking of intensity of winter totals). (Dáithí Stone, University of Cape Town)	The ES has been substantially revised.
79	69625	21	3	30	3	32	We cannot find the conclusion about summer drought on mid-continental areas in the relevant WGI chapters and sections about droughts, nor that the drought trends are robust. The conclusion should use the WGI wording about trends in droughts. (NETHERLANDS)	The ES has been substantially revised.
80	66968	21	3	32	3	32	little confidence' should be in italics for parity with other chapters (Peter Burt, University of Greenwich)	The ES has been substantially revised.
81	83145	21	3	34	3	41	The relevant time frames for these observed changes should be specified. (Katharine Mach, IPCC WGII TSU)	The ES has been substantially revised.
82	66969	21	3	35	3	36	virtually certain' should be in italics for parity with other chapters. (Peter Burt, University of Greenwich)	The ES has been substantially revised.
83	83146	21	3	35	3	36	"virtually certain" as a likelihood term should be italicized for clarity. (Katharine Mach, IPCC WGII TSU)	The ES has been substantially revised.
84	66970	21	3	36	3	36	Subscript '2' required in 'CO2'. (Peter Burt, University of Greenwich)	The ES has been substantially revised.
85	74307	21	3	38	3	38	Please insert "sea" before ice; if glacial ice an snow included in thinking be explicit. (UNITED STATES OF AMERICA)	The ES has been substantially revised.

#	ID	Ch	From Page	From Line	To Page	To Line	Comment	Response
86	74308	21	3	39	3	39	Please capitalize "Arctic"; insert "sea" before ice. (UNITED STATES OF AMERICA)	The ES has been substantially revised.
87	74309	21	3	40	3	40	Please insert new sentence regarding increasing net loss of ice from ice sheets sheets. (UNITED STATES OF AMERICA)	The ES has been substantially revised.
88	65157	21	3	41	3	41	The sentence: " Several hundred glaciers globally -----in the last 30 years" being a very important statement should better be supported with a reference. (Muhammad Munir Sheikh, Global Change Impact Studies Centre (GCISC))	The ES has been substantially revised.
89	74310	21	3	42	3	42	Please insert "sea" before ice. (UNITED STATES OF AMERICA)	The ES has been substantially revised.
90	78485	21	3	42	3	43	Presumably this is referring to the Arctic Ocean, rather than the Arctic generally (e.g. the ice on top of Greenland). (Dáithí Stone, University of Cape Town)	The ES has been substantially revised.
91	83147	21	3	42	3	43	Where 2°C is mentioned here, it would be helpful to specify more precisely what is meant--2°C global mean temperature increase above preindustrial? (Katharine Mach, IPCC WGII TSU)	The ES has been substantially revised.
92	66971	21	3	43	3	43	Degree symbol missing. (Peter Burt, University of Greenwich)	The ES has been substantially revised.
93	83148	21	3	45	3	45	It would be helpful to indicate more precisely what is meant by "fairly coherent." (Katharine Mach, IPCC WGII TSU)	The ES has been substantially revised.
94	84771	21	3	45	3	45	Please clarify what is meant by fairly coherent in this line. (Michael Mastrandrea, IPCC WGII TSU)	The ES has been substantially revised.
95	78652	21	3	47	0	0	This conclusion does not seem to have regional context. It should be discussed in other chapters of WGII or WGI. (Food and Agriculture Organization of the United Nations (FAO))	The ES has been substantially revised.
96	64730	21	3	47	3	52	You are mixing the problem of internal variability and multi-decadal near term prediction. Please separate. (Frank Kreienkamp, Climate & Environment Consulting Potsdam GmbH)	The ES has been substantially revised.
97	69626	21	3	47	3	52	Are ALL statements in this paragraph supported by the material in WG I, Chapter 11?? (NETHERLANDS)	The ES has been substantially revised.
98	78486	21	3	47	3	52	I am not clear on the relevance of this paragraph to this chapter. In any case, part of the reason that GHG forcing is not a major source of uncertainty is that uncertainty on the GHG response is low on that time scale (decades, as a decadal forecast needs a baseline) following from attribution analyses. (Dáithí Stone, University of Cape Town)	The ES has been substantially revised.
99	84772	21	3	47	3	52	This paragraph is overlapping with the statement on page 5 lines 4-7, and these statements do not appear to be completely consistent. In addition, section 21.3.3.1.3 states "medium evidence" where "some evidence" is used here. Please provide line of sight for this paragraph, and ensure clear traceability. (Michael Mastrandrea, IPCC WGII TSU)	The ES has been substantially revised.
100	64731	21	4	1	0	0	What is GMSL? Please add global mean sea level (Frank Kreienkamp, Climate & Environment Consulting Potsdam GmbH)	The ES has been substantially revised.
101	78487	21	4	1	0	0	GMSL? (Dáithí Stone, University of Cape Town)	The ES has been substantially revised.
102	78653	21	4	1	0	0	This conclusion does not seem to have regional context. It should be discussed in other chapters of WGII or WGI. (Food and Agriculture Organization of the United Nations (FAO))	The ES has been substantially revised.
103	66972	21	4	1	4	1	Capital 'C' required for 'century' (in this context it is a proper noun and is also in keeping with other usage in the document). (Peter Burt, University of Greenwich)	The ES has been substantially revised.
104	60349	21	4	1	4	2	The abbreviation GMSL has not yet been defined (Andrew Ferrone, Public Research Centre - Gabriel Lippmann)	The ES has been substantially revised.
105	83149	21	4	1	4	5	Is this also a working group 1 finding? If so, could treatment here be reduced? (Katharine Mach, IPCC WGII TSU)	The ES has been substantially revised.
106	84773	21	4	1	4	5	This is another paragraph that could be considered for deletion, given the WGI focus of this paragraph. Again, this should appear in the chapter, but not the ES on its own, unless integrated with statements within the WGII scope. (Michael Mastrandrea, IPCC WGII TSU)	The ES has been substantially revised.
107	66973	21	4	3	4	3	Capital 'C' required for 'century' (in this context it is a proper noun and is also in keeping with other usage in the document). (Peter Burt, University of Greenwich)	The ES has been substantially revised.
108	74311	21	4	3	4	6	There is an inconsistent use of likelihood terms throughout. Sometimes they are used in the formal IPCC statistical sense; at other times, they are used in informal contexts (see TS, p. 4, lines 41-54) (UNITED STATES OF AMERICA)	The ES has been substantially revised.
109	78488	21	4	5	0	0	Also the gravitational change from melting a glacier or ice sheet, which is the same magnitude as coastal uplift but influences a larger area. (Dáithí Stone, University of Cape Town)	The ES has been substantially revised.
110	57630	21	4	7	4	8	It is not clear. It means that CMIP5 compare with CMIP3? (ZONG-CI ZHAO, National Climate Center)	The ES has been substantially revised.
111	78489	21	4	7	4	8	Do you mean "the uncertainties reported"? I am not sure that we can say anything about "inherent" uncertainties. (Dáithí Stone, University of Cape Town)	The ES has been substantially revised.

#	ID	Ch	From Page	From Line	To Page	To Line	Comment	Response
112	83150	21	4	7	4	14	As the executive summary is reduced in length, deletion of these paragraphs could be considered. (Katharine Mach, IPCC WGII TSU)	The ES has been substantially revised.
113	61548	21	4	7	5	15	The overall flavour of the messages given here is relatively negative, weaknesses and uncertainties are strongly stressed. These messages should be in line with the messages given in the other chapters. (European Union DG Research, Directorate Environment Climate Change & Environmental Risks Unit)	The ES has been substantially revised.
114	78490	21	4	8	0	0	"addition of... topography". This is an odd example. First, CMIP3 models included in AR4 had topography already. Second, even if they had not, I can see how the addition might reduce error, but it is not so clear to me that it would reduce uncertainty. (Dáithí Stone, University of Cape Town)	The ES has been substantially revised.
115	78654	21	4	10	0	0	This conclusion does not seem to have regional context. It should be discussed in other chapters of WGII or WGI. (Food and Agriculture Organization of the United Nations (FAO))	The ES has been substantially revised.
116	74312	21	4	10	4	11	The text is very dense. What is a multiple scenario element? (UNITED STATES OF AMERICA)	The ES has been substantially revised.
117	83151	21	4	10	4	11	More specificity would be helpful--what scenario elements and what issues? (Katharine Mach, IPCC WGII TSU)	The ES has been substantially revised.
118	83152	21	4	16	4	17	Is it possible to provide more information on the core discrepancies? (Katharine Mach, IPCC WGII TSU)	The ES has been substantially revised.
119	57631	21	4	16	4	19	"some variables and locations" should give the specific variables and locations. (ZONG-CI ZHAO, National Climate Center)	The ES has been substantially revised.
120	78492	21	4	17	4	18	Could this second sentence also be in bold? (Dáithí Stone, University of Cape Town)	The ES has been substantially revised.
121	78491	21	4	19	0	0	What is "model uncertainty"? Climate models themselves tend to be deterministic, and thus pretty certain. (Dáithí Stone, University of Cape Town)	The ES has been substantially revised.
122	83153	21	4	19	4	19	For the described open question, it would be preferable to indicate more specifically what the greatest challenges are. (Katharine Mach, IPCC WGII TSU)	The ES has been substantially revised.
123	78655	21	4	21	0	0	This conclusion does not seem to have regional context. It should be discussed in other chapters of WGII or WGI. (Food and Agriculture Organization of the United Nations (FAO))	The ES has been substantially revised.
124	78494	21	4	23	0	0	You realise this is an evaluation of the likelihood of political decisions, right? (Dáithí Stone, University of Cape Town)	The ES has been substantially revised.
125	66974	21	4	24	4	24	Bad English: 'uncertainty in the ....uncertainty.!' (Peter Burt, University of Greenwich)	The ES has been substantially revised.
126	69627	21	4	24	4	24	Skip the second word 'uncertainty'. (NETHERLANDS)	The ES has been substantially revised.
127	83154	21	4	24	4	26	It would be helpful to clarify this statement further. (Katharine Mach, IPCC WGII TSU)	The ES has been substantially revised.
128	78493	21	4	25	4	26	Is the last point not redundant with the second last? (Dáithí Stone, University of Cape Town)	The ES has been substantially revised.
129	74313	21	4	28	4	30	Please simplify this sentence/summary. E.g. Downscaling of coarse resolution global climate models is more compatible with the spatial and temporal scales for understanding regional impacts. (UNITED STATES OF AMERICA)	The ES has been substantially revised.
130	83155	21	4	30	4	30	For the mentioned coordination, it would be helpful to specify further what is meant--coordination among whom? (Katharine Mach, IPCC WGII TSU)	The ES has been substantially revised.
131	83156	21	4	36	4	52	The chapter team should further coordinate the material on hotspots, especially on lines 36-37 and 47-52, with the assessment in chapter 19. For example, it would be best not to imply that the chapter 19 hotspots approach is setting priorities for policy action, given that the assessment is policy neutral. (Katharine Mach, IPCC WGII TSU)	The ES has been substantially revised.
132	66975	21	4	46	4	46	Insert colon after 'include' (Peter Burt, University of Greenwich)	The ES has been substantially revised.
133	66976	21	4	47	4	47	Change 'indexes' to 'indices'. (Peter Burt, University of Greenwich)	The ES has been substantially revised.
134	66977	21	5	1	5	1	Capital 'C' required for 'century' (in this context it is a proper noun and is also in keeping with other usage in the document). (Peter Burt, University of Greenwich)	The ES has been substantially revised.
135	69628	21	5	1	5	3	What is meant with 'generally in line with'? There are differences between AR4 and AR5 concerning projected precipitation extremes (from very likely in AR4 to likely in AR5, consistent with SREX). (NETHERLANDS)	The ES has been substantially revised.
136	83157	21	5	1	5	14	For these findings, it would be preferable to make them stand alone, not requiring the reader to be aware of the conclusions of the 4th assessment report. (Katharine Mach, IPCC WGII TSU)	The ES has been substantially revised.
137	83158	21	5	4	5	7	Consistency of these statements with page 3, lines 49-52, should be ensured. (Katharine Mach, IPCC WGII TSU)	The ES has been substantially revised.
138	84775	21	5	4	5	7	Please compare this statement with that on page 3 lines 47-52. These statements to not appear to be completely consistent. (Michael Mastrandrea, IPCC WGII TSU)	The ES has been substantially revised.



#	ID	Ch	From Page	From Line	To Page	To Line	Comment	Response
139	66978	21	5	10	5	10	What is 'IAV'? (Peter Burt, University of Greenwich)	The ES has been substantially revised.
140	69629	21	5	15	5	16	We suggest to substantiate mentioning the US and Europe, the regions where the majority of the studies on air quality have taken place (NETHERLANDS)	The ES has been substantially revised.
141	74314	21	5	15	5	16	This seems out of place under the existing heading, which relates to climate and not air quality/health. (UNITED STATES OF AMERICA)	The ES has been substantially revised.
142	78656	21	5	18	0	0	This conclusion does not seem to have regional context. It should be discussed in other chapters of WGII or WGI. (Food and Agriculture Organization of the United Nations (FAO))	The ES has been substantially revised.
143	83159	21	5	18	5	19	Is it possible to provide more insight into this new information here? For example, it would be great if the chapter team could build on the finding of chapter 25 on non-climatic information. (Katharine Mach, IPCC WGII TSU)	The ES has been substantially revised.
144	83160	21	5	18	5	41	This material could be shortened and combined, for example, with the paragraph on page 4, lines 10-14. Focus on SSPs could also be reduced. (Katharine Mach, IPCC WGII TSU)	The ES has been substantially revised.
145	66979	21	5	19	5	19	What are RCPs? (Peter Burt, University of Greenwich)	The ES has been substantially revised.
146	66980	21	5	20	5	20	Change 'general' to 'generally'. (Peter Burt, University of Greenwich)	The ES has been substantially revised.
147	83161	21	5	20	5	25	The chapter team should ensure this finding is coordinated with the assessment findings of chapter 14. (Katharine Mach, IPCC WGII TSU)	The ES has been substantially revised.
148	78657	21	5	27	0	0	This conclusion does not seem to have regional context. It should be discussed in other chapters of WGII or WGI. (Food and Agriculture Organization of the United Nations (FAO))	The ES has been substantially revised.
149	66981	21	5	27	5	27	Change 'RCP's' to 'RCPs' (plural not possessive). (Peter Burt, University of Greenwich)	The ES has been substantially revised.
150	74315	21	5	27	5	32	Please define your acronyms, as not all readers will start from Chapter 1. IAM and RCP are not defined 'up front'. Some explanations are found further in the text but one has to hunt to find them. (UNITED STATES OF AMERICA)	The ES has been substantially revised.
151	83162	21	5	30	5	31	It would be helpful to clarify the point being raised in this statement, perhaps by using a formulation that avoids "not." (Katharine Mach, IPCC WGII TSU)	The ES has been substantially revised.
152	66982	21	5	31	5	31	What are 'IAM's' (or 'IAMS')? [In the UK this is a brand of cat food, but I doubt that here!]. (Peter Burt, University of Greenwich)	The ES has been substantially revised.
153	66983	21	5	32	5	32	Change 'RCP's' to 'RCPs' (plural not possessive). (Peter Burt, University of Greenwich)	The ES has been substantially revised.
154	78658	21	5	34	0	0	This conclusion does not seem to have regional context. It should be discussed in other chapters of WGII or WGI. (Food and Agriculture Organization of the United Nations (FAO))	The ES has been substantially revised.
155	74316	21	5	34	5	38	Sentence is obtuse and incomprehensible. (UNITED STATES OF AMERICA)	The ES has been substantially revised.
156	80004	21	5	34	5	41	This statement does not make sense. "Land-use" must be replaced by "land-use-change". A price on terrestrial carbon must be discussed in a timeframe relevant for stabilization of the GHG concentration in the atmosphere. Please cite text in AR IV, WG III, (NORWAY)	The ES has been substantially revised.
157	66984	21	5	38	5	38	Change 'SSP's' to 'SSPs' (plural not possessive). (Peter Burt, University of Greenwich)	The ES has been substantially revised.
158	78659	21	5	43	0	0	This conclusion does not seem to have regional context. It should be discussed in other chapters of WGII or WGI. (Food and Agriculture Organization of the United Nations (FAO))	The ES has been substantially revised.
159	60350	21	5	43	5	44	The term "products" is not clear in this context. Replace by merchandises (Andrew Ferrone, Public Research Centre - Gabriel Lippmann)	The ES has been substantially revised.
160	83163	21	5	43	5	46	The assessment of working group 3 could broadly be considered here. Additionally, instead of the phrase "highly likely" it would be preferable to assign calibrated uncertainty language, especially a level of confidence, for this statement to indicate the chapter team's degree of certainty for the conclusion. (Katharine Mach, IPCC WGII TSU)	The ES has been substantially revised.
161	84776	21	5	43	5	46	This finding is solely in the WGIII realm. Please consider inclusion in the context of a finding related to WGII material. (Michael Mastrandrea, IPCC WGII TSU)	The ES has been substantially revised.
162	74317	21	5	44	0	0	P5L44 "non-trivial" It would be better to use a positive description rather than a negative descriptor. (UNITED STATES OF AMERICA)	The ES has been substantially revised.
163	66985	21	5	45	5	45	'via' should be in italics. (Peter Burt, University of Greenwich)	The ES has been substantially revised.
164	78660	21	5	48	0	0	This conclusion does not seem to have regional context. It should be discussed in other chapters of WGII or WGI. (Food and Agriculture Organization of the United Nations (FAO))	The ES has been substantially revised.
165	83164	21	5	48	5	53	This paragraph could be further coordinated with the findings of chapters 14 and 15. (Katharine Mach, IPCC WGII TSU)	The ES has been substantially revised.
166	65158	21	5	49	5	49	The word "indicators" be corrected as "indicators". (Muhammad Munir Sheikh, Global Change Impact Studies Centre (GCISC))	The ES has been substantially revised.

#	ID	Ch	From Page	From Line	To Page	To Line	Comment	Response
167	71415	21	5	49	5	49	The word "indicator" is misspelled (i.e., missing the "i") (CANADA)	The ES has been substantially revised.
168	74319	21	6	0	0	0	The introduction provides an outline of how the chapter will be developed. Specifically, there is a section on decision-making context, and then different levels of synthesis, then trans-regional and cross-regional differences. However, the ensuing text doesn't follow this organization (some sections bear the right titles, but the overall flow of text makes it very difficult to follow the organization). (UNITED STATES OF AMERICA)	The ES has been substantially revised.
169	83165	21	6	4	6	5	It does seem that general statements have been made regarding factors influencing vulnerability and changes in vulnerability, and clear interpretation of this finding with respect to related conclusions in the special report and the current report should be ensured. (Katharine Mach, IPCC WGII TSU)	The ES has been substantially revised.
170	83166	21	6	4	6	11	Overlap with page 3, lines 4-10 should be reduced. (Katharine Mach, IPCC WGII TSU)	The ES has been substantially revised.
171	84777	21	6	4	6	11	This finding is overlapping with page 3 lines 4-10. Please reduce overlap, and specify line of sight for this paragraph if it is retained. (Michael Mastrandrea, IPCC WGII TSU)	The ES has been substantially revised.
172	78661	21	6	16	0	0	Many important conclusions from this chapter seem to be global in nature as is evident from the set of statements in the executive summary. If the sentence "the framing of this chapter..." is indeed the true scope of this chapter, the title of the chapter should change. This chapter carries very important information for policy makers. If the chapter title remain "regional context", the important information will not reach the right audience. (Food and Agriculture Organization of the United Nations (FAO))	The ES has been substantially revised.
173	83167	21	6	40	6	40	Exactly what is meant by "assuredly" could be further clarified. (Katharine Mach, IPCC WGII TSU)	The word has been removed
174	83168	21	6	41	6	41	The phrase "therefore an imperative" may be overly prescriptive, and alternative wording could be considered. (Katharine Mach, IPCC WGII TSU)	Changed.
175	74318	21	6	50	7	4	This paragraph is hard to understand and adds little value. It can be removed. (UNITED STATES OF AMERICA)	The section has been revised
176	83169	21	6	52	6	52	For the unfamiliar reader, it would be preferable to be more specific than "naturally," which assumes prior knowledge. (Katharine Mach, IPCC WGII TSU)	Paragraph was omitted
177	74321	21	7	0	0	0	The paragraphs under decision-making context go into far greater detail than needed. The first paragraph of section 21.2.2, Defining Regions, states the case nicely. The authors will lose the reader with such dense and nuanced prose. (UNITED STATES OF AMERICA)	The section has been shortened.
178	83170	21	7	1	7	2	The type of geographical comprehensiveness meant here could be clarified--comprehensiveness at the local level? (Katharine Mach, IPCC WGII TSU)	Paragraph was omitted
179	66986	21	7	14	7	14	Context of 'decision making' not clear. (Peter Burt, University of Greenwich)	Referencing glitch - now fixed
180	83171	21	7	40	7	50	It would be preferable to provide citations in support of these statements. (Katharine Mach, IPCC WGII TSU)	Citations have been added to illustrate the statements (mainly taken from Table 21-4)
181	74320	21	7	40	8	10	These paragraphs can be shortened and condensed. (UNITED STATES OF AMERICA)	We believe that it is valuable to describe the different types of decision-making for which climate risk information is required, but we now supply illustrative examples from the literature to make this more concrete.
182	66987	21	7	54	7	54	Capital 'C' required for 'chapter' (in this context it is a proper noun and is also in keeping with other usage in the document). (Peter Burt, University of Greenwich)	Copy editing to be done by the publisher.
183	70770	21	8	0	0	0	Section 21.3.1.2.2. Is still quite weak and my need to add further references and/or associated challenges in regard to future vulnerability assessments. A vulnerability assessment and risk assessment are not only variantes (line 20), but are also related to a certain extent. (Stefan Kienberger, University of Salzburg)	Misplaced: Page 14
184	66988	21	8	6	8	6	Insert space after ')'. (Peter Burt, University of Greenwich)	Copy editing to be done by the publisher.
185	66989	21	8	16	8	16	'et al.' should be in italics. (Peter Burt, University of Greenwich)	Copy editing to be done by the publisher.
186	66990	21	8	20	8	20	Order of references wrong: Kirtman et al. should come at the end of the list. However, why use 'in prep.' as a citation here? Most journals would not publish this, what happens if the paper is rejected? Much more robust to keep to papers already published (or which are known to be 'accepted/in press'). (Peter Burt, University of Greenwich)	Publication cutoff date for accepted papers was 31 August 2013 - references will be revised accordingly and copy-edited.
187	66991	21	8	37	8	37	Insert comma after 'options'. (Peter Burt, University of Greenwich)	Copy editing to be done by the publisher.

#	ID	Ch	From Page	From Line	To Page	To Line	Comment	Response
188	81443	21	9	0	0	0	Figure 21-9: Requires a label on the y-axis. (Yuka Estrada, IPCC WGII TSU)	Page 94: X-axis label is Year; Y-axis values are expressed relative to 100 (1990 values). This figure will be re-drawn.
189	83172	21	9	9	9	9	In place of "demanding" would "benefiting from" be more appropriate? (Katharine Mach, IPCC WGII TSU)	Good suggestion and now implemented
190	83173	21	9	10	9	11	Where the chapter team describes relatively robust observations, are both temperature and precipitation being referred to? Or other variables of interest? (Katharine Mach, IPCC WGII TSU)	The point about observations has been deleted.
191	60351	21	9	10	9	12	The second part of this sentence about signal: noise its no clear. Rephrase as: "... projections from global models still offer some confidence." (Andrew Ferrone, Public Research Centre - Gabriel Lippmann)	The sentence has been revised by paraphrasing language from the WG I chapter on model evaluation.
192	78496	21	9	10	9	18	It is curious to see climate as the first in the list here. What happens when "trends in observations" are not "robust" due to the lack of monitoring, such as over Central Africa, the Antarctic Ocean, or the polar areas? Also, the heading "climate" seems to be at odds with the entry, which seems to be about climate change (trends). These are very different. (Dáithí Stone, University of Cape Town)	The entry is now labelled Changes in climate, as suggested. Its positioning at the top of the list seems natural enough given that this chapter contextualises the regional dimensions of climate change assessment across the three volumes of the AR5
193	83174	21	9	15	9	15	It could be helpful to clarify what is meant by "excerpts from maps"--regional map-based projections are reproduced? How about the regional climate plots produced uniquely for this report as a further entry point to the same information? (Katharine Mach, IPCC WGII TSU)	We now refer to time series plots that have been extracted from the atlas and appear in regional chapters.
194	78497	21	9	19	9	23	How are these not part of the "climate" entry above? I also found it very hard to parse this pseudo-sentence. (Dáithí Stone, University of Cape Town)	They are not part of the climate, even if they are part of the climate system! We have re-phrased the sentence to refer to changes in these phenomena.
195	66992	21	9	28	9	28	Bad English: replace 'like' with 'such as'. (Peter Burt, University of Greenwich)	Implemented
196	66993	21	9	30	9	30	Delete one comma after the reference. (Peter Burt, University of Greenwich)	Implemented
197	66994	21	9	34	9	34	Delete apostrophe. (Peter Burt, University of Greenwich)	Implemented
198	74322	21	9	46	9	46	Define SRES. (UNITED STATES OF AMERICA)	This section now moved to the end of this sub-section, and SRES defined at first mention
199	83175	21	9	51	9	51	Use of "demand" here could be considered to ensure a formulation that would not be interpreted as prescriptive. (Katharine Mach, IPCC WGII TSU)	Replaced with "can require"
200	74323	21	9	52	9	52	Define UNFCCC. (UNITED STATES OF AMERICA)	Reference here to UNFCCC deleted
201	74325	21	10	0	0	0	Box 21-1 and the associated text (approximately one page) are extremely dense and jargon-filled. Please simplify. (UNITED STATES OF AMERICA)	The box has been shortened and revised, hopefully to be more comprehensible to the reader. Some jargon is inevitable, but we have tried to provide sufficient cross-references for readers to obtain more information.
202	74326	21	10	0	0	0	The text under Box 21-1 is nearly incomprehensible. (UNITED STATES OF AMERICA)	The box has been shortened and revised, hopefully to be more comprehensible for the reader. Some jargon is inevitable, but we have tried to provide sufficient cross-references for readers to obtain more information.

#	ID	Ch	From Page	From Line	To Page	To Line	Comment	Response
203	85222	21	10	11	11	6	Illustrates the uselessness of the "radiative forcing" concept when applied to regional climate. It ignores the most important factors which are changes in air pressure, convection, latent heat exchange, wind speed and direction. Levels of urbanisation and influence of deserts, ice, and forests. (Vincent Gray, Climate Consultant)	We do not agree that radiative forcing should be seen as useless in relation to regional climate. This is required at global scale as input to climate models for well-mixed gases, and where there are significant large-scale regional patterns of radiative forcing (e.g. for aerosols, land use) these have been provided to climate modellers as well. We agree that the factors listed are important determinants of regional and local climate, and these can be accounted for (to a greater or lesser degree) through regional downscaling exercises. The point here is to introduce the new scenarios, including the RCPs applied in global climate modelling. How these RCP-based climates are subsequently interpreted at regional scale is taken up in other sections of this chapter.
204	77305	21	10	13	10	14	Are these per year or over 5 years? (William Ingram, Met Office)	We are not sure what the reviewer is referring to here - the comment seems to be misplaced.
205	74324	21	10	13	10	18	Please define acronyms. (UNITED STATES OF AMERICA)	All acronyms are defined in the chapter at their first mention. Many of them also appear in the glossary.
206	66995	21	10	27	10	27	'et al.' should be in italics. (Peter Burt, University of Greenwich)	Copy editing to be done by the publisher.
207	66996	21	10	32	10	0	'et al.' should be in italics. (Peter Burt, University of Greenwich)	Copy editing to be done by the publisher.
208	84778	21	10	33	10	34	Chapter 20 includes such a figure as well. (Michael Mastrandrea, IPCC WGII TSU)	This is now referenced.
209	66997	21	10	34	10	0	'et al.' should be in italics. (Peter Burt, University of Greenwich)	Copy editing to be done by the publisher.
210	66998	21	10	35	10	0	'et al.' should be in italics. (Peter Burt, University of Greenwich)	Copy editing to be done by the publisher.
211	66999	21	10	38	10	0	'et al.' should be in italics. (Peter Burt, University of Greenwich)	Copy editing to be done by the publisher.
212	67000	21	10	40	10	41	'et al.' should be in italics. (Peter Burt, University of Greenwich)	Copy editing to be done by the publisher.
213	67001	21	10	41	10	41	Order of references wrong: non-published material should come at the end of the list. However, why use 'submitted' as a citation here? Most journals would not publish this, what happens if the paper is rejected? Much more robust to keep to papers already published (or which are known to be 'accepted/in press'). (Peter Burt, University of Greenwich)	Publication cutoff date for accepted papers was 31 August 2013 - references will be revised accordingly and copy-edited.
214	67002	21	10	42	10	43	'et al.' should be in italics. (Peter Burt, University of Greenwich)	Copy editing to be done by the publisher.
215	67003	21	10	42	10	43	Order of references wrong: non-published material should come at the end of the list. However, why use 'submitted' as a citation here? Most journals would not publish this, what happens if the paper is rejected? Much more robust to keep to papers already published (or which are known to be 'accepted/in press'). (Peter Burt, University of Greenwich)	Publication cutoff date for accepted papers was 31 August 2013 - references will be revised accordingly and copy-edited.
216	67004	21	10	45	10	45	'et al.' should be in italics. (Peter Burt, University of Greenwich)	Copy editing to be done by the publisher.
217	67005	21	10	45	10	45	Why use 'in prep.' as a citation here? Most journals would not publish this, what happens if the paper is rejected? Much more robust to keep to papers already published (or which are known to be 'accepted/in press'). (Peter Burt, University of Greenwich)	Publication cutoff date for accepted papers was 31 August 2013 - references will be revised accordingly and copy-edited.
218	67006	21	10	49	10	49	'et al.' should be in italics. (Peter Burt, University of Greenwich)	Copy editing to be done by the publisher.
219	67007	21	10	49	10	49	Why use 'submitted.' as a citation here? Most journals would not publish this, what happens if the paper is rejected? Much more robust to keep to papers already published (or which are known to be 'accepted/in press'). (Peter Burt, University of Greenwich)	Publication cutoff date for accepted papers was 31 August 2013 - references will be revised accordingly and copy-edited.
220	67008	21	10	51	10	51	'et al.' should be in italics. (Peter Burt, University of Greenwich)	Copy editing to be done by the publisher.
221	67009	21	10	51	10	51	Order of references wrong: non-published material should come at the end of the list. However, why use 'submitted' as a citation here? Most journals would not publish this, what happens if the paper is rejected? Much more robust to keep to papers already published (or which are known to be 'accepted/in press'). (Peter Burt, University of Greenwich)	Publication cutoff date for accepted papers was 31 August 2013 - references will be revised accordingly and copy-edited.
222	67010	21	10	52	10	52	Capital 'C' required for 'chapter' (in this context it is a proper noun and is also in keeping with other usage in the document). (Peter Burt, University of Greenwich)	Copy editing to be done by the publisher.

#	ID	Ch	From Page	From Line	To Page	To Line	Comment	Response
223	74327	21	11	0	0	0	The explanation under Introduction to Methods and Information is very clear. The chapter would benefit from having more writing like that. (UNITED STATES OF AMERICA)	Thank you for this encouragement - we seek to improve other sections as suggested
224	69883	21	11	1	11	2	The E1 scenario was developed via the EU ENSEMBLES project so is not strictly SRES. (John Caesar, Met Office Hadley Centre)	The reviewer is right - this was a separate scenario simulation with the IMAGE model. However, it was initiated with one of the 40 SRES scenarios (IMAGE A1B) for a few years before deviating to the mitigation trajectory. This is reported in the cited paper, which is from the ENSEMBLES project.
225	67011	21	11	2	11	2	'et al.' should be in italics. (Peter Burt, University of Greenwich)	Copy editing to be done by the publisher.
226	67012	21	11	14	11	0	'et al.' should be in italics. (Peter Burt, University of Greenwich)	Technical editing to be done on final draft
227	67013	21	11	15	11	0	'et al.' should be in italics. (Peter Burt, University of Greenwich)	Technical editing to be done on final draft
228	67014	21	11	16	11	16	Comma missing after 'Hinkel'. (Peter Burt, University of Greenwich)	Technical editing to be done on final draft
229	67015	21	11	17	11	0	'et al.' should be in italics. (Peter Burt, University of Greenwich)	Technical editing to be done on final draft
230	67016	21	11	17	11	0	Why use 'submitted.' as a citation here? Most journals would not publish this, what happens if the paper is rejected? Much more robust to keep to papers already published (or which are known to be 'accepted/in press'). (Peter Burt, University of Greenwich)	Publication cutoff date for accepted papers was 31 August 2013 - references will be revised accordingly and copy-edited.
231	67017	21	11	22	11	22	'et al' should be in italics, with a full stop after the 'l' and a comma before the date. (Peter Burt, University of Greenwich)	Technical editing to be done on final draft
232	67018	21	11	29	11	29	Comma missing after author surname in reference. (Peter Burt, University of Greenwich)	Technical editing to be done on final draft
233	83176	21	11	29	11	31	Where "middle" is referred to on line 9 and "right" is referred to on line 31, is the opposite labeling actually meant? (Katharine Mach, IPCC WGII TSU)	Yes, this has been changed.
234	67019	21	11	35	11	35	'et al' should be in italics, with a full stop after the 'l' and a comma before the date. (Peter Burt, University of Greenwich)	Technical editing to be done on final draft
235	67020	21	11	38	11	38	Comma missing after author surname in reference. (Peter Burt, University of Greenwich)	Technical editing to be done on final draft
236	57632	21	11	49	11	50	Sugestion is to add a paragraph to mention about "from global to regional scale dynamic models" (ZONG-CI ZHAO, National Climate Center)	In view of space limitations, we have addressed this question by adding a sentence that mentions the spatial scale downscaling issues commonly addressed in the top-down approach. These relate not just to climate, but note that dynamical downscaling of climate is treated in greater detail later in the chapter.
237	78518	21	11	51	30	8	Could this section be condensed considerably? The climate material in particular seems much more detailed than would be expected for a synthesis. (Dáithí Stone, University of Cape Town)	Yes, this has been cut down.
238	83177	21	12	10	12	10	In addition to "spillover" the chapter team might consider use of the word "transboundary" as used in chapter 19. (Katharine Mach, IPCC WGII TSU)	This phrase has been removed in order to streamline the chapter.
239	67021	21	12	25	12	25	'versus' should be in italics. (Peter Burt, University of Greenwich)	Technical editing to be done on final draft
240	74328	21	12	28	12	31	Revise text to read "When regional chapters have excluded these issues, the assumption is ..... " (UNITED STATES OF AMERICA)	Done
241	67022	21	12	49	12	49	Capital 'S' required for 'section' (in this context it is a proper noun and is also in keeping with other usage in the document). (Peter Burt, University of Greenwich)	Technical editing to be done on final draft
242	65473	21	12	53	12	53	The word "organsing" may be replaced by the word "organising" (Naeem Manzoor, Global Change Impact Studies Centre (GCISC))	Done
243	67023	21	13	1	13	1	Capital 'C' required for 'chapter' (in this context it is a proper noun and is also in keeping with other usage in the document). (Peter Burt, University of Greenwich)	Technical editing to be done on final draft
244	74329	21	13	9	0	0	This section is cumbersome. Please rewrite it for clarity. (UNITED STATES OF AMERICA)	The section has been shortened and revised.
245	83178	21	13	9	13	54	For cross-references made to other chapters throughout these paragraphs, it'd be preferable to specify the relevant subsections wherever possible. (Katharine Mach, IPCC WGII TSU)	More specific cross-references are now included.
246	78498	21	13	12	0	0	Dedicated to part (the long-term part, but not the short-term) of this topic. (Dáithí Stone, University of Cape Town)	This paragraph was removed
247	67024	21	13	12	13	12	Capital 'C' required for 'chapter' (in this context it is a proper noun and is also in keeping with other usage in the document). (Peter Burt, University of Greenwich)	This paragraph was removed
248	67025	21	13	15	13	15	Capital 'C' required for 'chapter' (in this context it is a proper noun and is also in keeping with other usage in the document). (Peter Burt, University of Greenwich)	Copy editing to be done by the publisher.

#	ID	Ch	From Page	From Line	To Page	To Line	Comment	Response
249	67026	21	13	24	13	24	Capital 'C' required for 'chapter' (in this context it is a proper noun and is also in keeping with other usage in the document). (Peter Burt, University of Greenwich)	Copy editing to be done by the publisher.
250	78500	21	13	27	13	28	To paraphrase this, because of shorter-term variability it can be hard to notice longer-term variability. That does not make sense. A trend is a trend. Whether it is statistically significant (whatever that means) or externally driven is a different story, which depends on all sources of variability, not just charismatic modes. (Dáithí Stone, University of Cape Town)	Text was shortened and this explanation has been dropped.
251	65144	21	13	29	0	0	chapter 26' should be 'chapter 25' (Penny Whetton, Commonwealth Scientific and Industrial Research Organization - Marine and Atmospheric Research)	Cross-reference has been corrected.
252	67027	21	13	29	13	29	Capital 'C' required for 'chapter' (in this context it is a proper noun and is also in keeping with other usage in the document). (Peter Burt, University of Greenwich)	Copy editing to be done by the publisher.
253	78499	21	13	32	13	33	And where the ice is melting. (Dáithí Stone, University of Cape Town)	Addressed.
254	67028	21	13	35	13	0	Capital 'C' required for 'chapter' (in this context it is a proper noun and is also in keeping with other usage in the document). (Peter Burt, University of Greenwich)	Copy editing to be done by the publisher.
255	67029	21	13	37	13	0	Capital 'C' required for 'chapter' (in this context it is a proper noun and is also in keeping with other usage in the document). (Peter Burt, University of Greenwich)	Copy editing to be done by the publisher.
256	74330	21	13	37	13	37	Please replace "most rapid" with "largest". (UNITED STATES OF AMERICA)	This point has been re-drafted based on content in chapter 30.
257	78501	21	13	40	0	0	"human adaptation" to "adaptation by humans"? (Dáithí Stone, University of Cape Town)	Text was removed
258	67030	21	13	43	13	0	Capital 'C' required for 'chapter' (in this context it is a proper noun and is also in keeping with other usage in the document). (Peter Burt, University of Greenwich)	Text was removed
259	67031	21	13	54	13	0	Capital 'C' required for 'chapter' (in this context it is a proper noun and is also in keeping with other usage in the document). (Peter Burt, University of Greenwich)	Copy editing to be done by the publisher.
260	67032	21	14	1	14	1	Capital 'C' required for 'chapter' (in this context it is a proper noun and is also in keeping with other usage in the document). (Peter Burt, University of Greenwich)	Copy editing to be done by the publisher.
261	67033	21	14	5	14	5	Capital 'C' required for 'chapter' (in this context it is a proper noun and is also in keeping with other usage in the document). (Peter Burt, University of Greenwich)	Copy editing to be done by the publisher.
262	67034	21	14	10	14	10	delete comma. (Peter Burt, University of Greenwich)	Implemented
263	67035	21	14	12	14	12	Correct double hyphen. (Peter Burt, University of Greenwich)	Implemented
264	70768	21	14	17	0	0	The review of Kienberger et al 2012 can be added here. They reviewed 20 Vulnerability assessments in regard to spatial, temporal and thematic characteristics and propose a consolidated scale approach: Kienberger, S., Blaschke, T., Zaidi. R.Z., (2012). A framework for spatio-temporal scales and concepts from different disciplines: the 'vulnerability cube'. Natural Hazards (online). <a href="http://dx.doi.org/10.1007/s11069-012-0513-x">http://dx.doi.org/10.1007/s11069-012-0513-x</a> (Stefan Kienberger, University of Salzburg)	Thank you for the suggestion. We have added this citation.
265	83179	21	14	20	14	22	Citations in support of these statements should be provided. (Katharine Mach, IPCC WGII TSU)	Example citations have been added.
266	74331	21	14	28	14	30	Ocean experiments are also conducted, using similar methodologies such as chambers, mesocosms, etc... (UNITED STATES OF AMERICA)	Thank you for this suggestion. We have added this and two citations.
267	70769	21	14	35	0	0	The reference of Kienberger et al 2012 may add to the discussion scale issues. Kienberger, S., Blaschke, T., Zaidi. R.Z., (2012). A framework for spatio-temporal scales and concepts from different disciplines: the 'vulnerability cube'. Natural Hazards (online). <a href="http://dx.doi.org/10.1007/s11069-012-0513-x">http://dx.doi.org/10.1007/s11069-012-0513-x</a> (Stefan Kienberger, University of Salzburg)	We have cited this reference earlier and for space reasons prefer to leave it out here as it would require additional explanation.
268	67036	21	14	50	14	50	'versus' should be in italics. (Peter Burt, University of Greenwich)	Copy editing to be done by the publisher.
269	67037	21	15	6	15	6	Capital 'S' required for 'section' (in this context it is a proper noun and is also in keeping with other usage in the document). (Peter Burt, University of Greenwich)	Copy editing to be done by the publisher.
270	78504	21	15	10	0	0	I am surprised by the lack of references to earlier chapters, covering adaptation, agriculture, decision making, and other topics discussed here. (Dáithí Stone, University of Cape Town)	This has been revised
271	83180	21	15	10	0	0	Section 21.3.2. For all statements, citations must be provided, or alternatively, clear line-of-sight references to specific supporting chapter sections can be provided. (Katharine Mach, IPCC WGII TSU)	OK, done
272	84779	21	15	10	0	0	Section 21.3.2: This section must include clear line of sight to the specific sections of other chapters, as well as relevant citations that support the statements being made here. (Michael Mastrandrea, IPCC WGII TSU)	OK, done
273	74332	21	15	12	0	0	The adaptation discussion in the first paragraph omits any work of the adaptation in the Americas. (UNITED STATES OF AMERICA)	This has been revised.

#	ID	Ch	From Page	From Line	To Page	To Line	Comment	Response
274	83181	21	15	22	15	23	Given the statement on line 30, should this statement be further qualified at all? (Katharine Mach, IPCC WGII TSU)	Yes, the first should refer to planned adaptation
275	78502	21	15	43	15	44	How is this an example of “maladaptive behaviour”? Faced with an increased risk of starvation, the hunter exposes himself to new risks in order to reduce the risk of starvation, in such a way as to reduce the overall risk or to change the balance of risk (say between catastrophic and chronic categories). This sounds like (potentially) sensible behaviour. (Dáithí Stone, University of Cape Town)	This section only reflects what is already in the chapters, and the judgement of whether this is maladaptive is made by the relevant regional authors and/or the papers they have cited
276	67038	21	15	46	15	46	Change 'Small Island States' to 'small island states'. (Peter Burt, University of Greenwich)	Technical editing to be done on final draft
277	78503	21	15	48	15	50	Note however that much of this experience is with very different climate hazards (e.g. dry periods) than might be presented by anthropogenic climate change (warming). (Dáithí Stone, University of Cape Town)	Understood, but this is not always reflected in the chapters.
278	61553	21	16	1	29	0	This section touches on tipping points in a few places, e.g.sections on sea level and cryosphere. However, other sections omit reference to tipping points or critical thresholds e.g. ENSO, monsoon system, Amazon forest dieback. Lenton et al. (2008) Table 1 lists a range of policy relevant tipping points which could be used as a basis for enhancing this section. (European Union DG Research, Directorate Environment Climate Change & Environmental Risks Unit)	We do not explicitly address tipping points
279	83182	21	16	7	0	0	Section 21.3.3. This section should be shortened as much as possible, as it is substantially over length now. (Katharine Mach, IPCC WGII TSU)	The section was substantially shortened
280	80427	21	16	7	30	8	Section 21.3.3: The section on "Regional Aspects of the Physical Climate System" has improved a lot. WGI AR5 appears to be well-referenced. Please make sure to maintain consistency with the latest WGI AR5 assessment relevant to this section and the cross-chapter Box including figures. (Gian-Kasper Plattner, IPCC WGI TSU)	We have double checked consistency with the WGI report
281	78505	21	16	13	16	14	Sure, but the rub is in determining which “such regions” are the “many” relevant ones, as against the many irrelevant ones. (Dáithí Stone, University of Cape Town)	Agreed, text rephrased.
282	74333	21	16	21	0	0	Box 21-2: Please consider adding a map of the different regions shown. The names are obscure to non-specialists. (UNITED STATES OF AMERICA)	Comment no longer relevant: figure and text removed due to space constraints.
283	67039	21	16	30	16	30	'et al.' should be in italics. (Peter Burt, University of Greenwich)	It appears that standard procedure in IPCC reports is not to have "et al." in italics
284	78506	21	16	32	0	0	Is the “GHA” abbreviation needed? (Dáithí Stone, University of Cape Town)	Removed.
285	67040	21	16	45	16	45	Change 'observed7' to 'observed'. (Peter Burt, University of Greenwich)	Will be addressed by copy-editing
286	67041	21	16	48	16	48	'et al.' should be in italics. (Peter Burt, University of Greenwich)	Will be addressed by copy-editing
287	67042	21	16	53	16	53	Capital 'C' required for 'chapter' (in this context it is a proper noun and is also in keeping with other usage in the document). (Peter Burt, University of Greenwich)	Done
288	69884	21	17	0	0	0	Box 21-2 Figure. Could HadCRUT4 be used here for consistency with WG1? (John Caesar, Met Office Hadley Centre)	Comment no longer relevant: figure removed due to space constraints.
289	74334	21	17	0	0	0	Table 21.5: Is this table necessary? Most of the categories suggest a dependence on availability of observations - can't that be noted in the text instead? (UNITED STATES OF AMERICA)	As a visual quick way to assess very relevant information, we believe this makes it accesible and valuable.
290	67043	21	17	3	17	3	Change '80s' to '1980s'. (Peter Burt, University of Greenwich)	Will be addressed by copy-editing
291	67044	21	17	3	17	3	'et al' should be in italics, with a full stop after the 'l' and a comma before the date. (Peter Burt, University of Greenwich)	it appears that standard procedure in IPCC reports is not to have "et al." in italics
292	78507	21	17	11	17	20	Because there is a big difference between COMESA and the northern half of COMESA, this distinction should be mentioned at the top of the caption. (Dáithí Stone, University of Cape Town)	Comment no longer relevant: text removed due to space constraints.
293	67045	21	17	15	17	15	'et al' should be in italics, with a full stop after the 'l' and a comma before the date. (Peter Burt, University of Greenwich)	It appears that standard procedure in IPCC reports is not to have "et al." in italics
294	67046	21	17	19	17	19	Capital 'S' required for 'section' (in this context it is a proper noun and is also in keeping with other usage in the document). (Peter Burt, University of Greenwich)	Done
295	67047	21	17	22	17	24	'et al' should be in italics, with a full stop after the 'l' and a comma before the date. (Peter Burt, University of Greenwich)	It appears that standard procedure in IPCC reports is not to have "et al." in italics
296	67048	21	17	23	17	24	Comma missing after author surname in references. (Peter Burt, University of Greenwich)	Done

#	ID	Ch	From Page	From Line	To Page	To Line	Comment	Response
297	57696	21	17	35	17	36	Because of the shorter time period (i.e. "smaller sample size"), there is more natural variability in seasonal than annual precipitation. Therefore, in most regions, seasonal changes in precipitation will likely be weaker compared with natural variability than the annual mean changes. This suggest that the sentence on lines 33-34 also generally applies on seasonal and shorter time scales. (Jouni Räisänen, University of Helsinki)	Noted but comment no longer relevant: text removed due to space constraints.
298	69630	21	17	35	17	39	A recent paper in Nature of Climate Change provides a nice example of these two points of attention, which is worth emphasizing here. You already have Deser et al. in your reference list, though listed as in press. In the mean time it appeared. The findings of Buishand et al. (which is not in the reference list of this chapter) fits well in this discussion. Buishand A., G. de Martino, J. Spreew en T. Brandsma (2012). Homogeneity of precipitation series in the Netherlands and their trends in the past century. International Journal of Climatology. (NETHERLANDS)	Noted but comment no longer relevant: text shortened due to space constraints.
299	67049	21	17	36	17	36	Delete space after 'scales' (Peter Burt, University of Greenwich)	Done
300	83183	21	17	36	17	39	Is it possible to provide relevant key findings from working group 1 here? (Katharine Mach, IPCC WGII TSU)	These are referred to elsewhere in Ch21.
301	67050	21	17	50	17	50	Capital 'S' required for 'section' (in this context it is a proper noun and is also in keeping with other usage in the document). (Peter Burt, University of Greenwich)	Done
302	67051	21	18	2	18	2	Insert comma after 'temperature'. (Peter Burt, University of Greenwich)	Done
303	78511	21	18	31	23	17	Much of these subsections have been describing global features, which could probably be dropped for this chapter. (Dáithí Stone, University of Cape Town)	Most global statements have been removed, as suggested, unless they were deemed necessary to put in better context the regional statements
304	83184	21	18	33	18	34	In place of "about," is it possible to specify the relevant ranges? (Katharine Mach, IPCC WGII TSU)	Done
305	74335	21	18	33	18	35	Awkwardly structured sentence. Please revise. (UNITED STATES OF AMERICA)	Done
306	83185	21	18	33	18	52	It would be preferable to specify the relevant chapter subsections in Working Group I for all statements here. (Katharine Mach, IPCC WGII TSU)	Done
307	65478	21	18	34	18	34	(There may be many omissions which needs to be corrected. Some examples are given below:) Insert the degree symbol ' ° ' after 0.8 and 0.5 (Naeem Manzoor, Global Change Impact Studies Centre (GCISC))	Done
308	67052	21	18	34	18	34	Degree symbols required. (Peter Burt, University of Greenwich)	Done
309	64732	21	18	35	0	0	Please define a proper reference period (NOT 1986-2005). A reference period should include 30 year (WMO-standard) and should be fixed for following IPCC-ARs. A common reference period is 1971-2000. (Frank Kreienkamp, Climate & Environment Consulting Potsdam GmbH)	This reference period was taken from the WGI report, so we would rather not change it for consistency.
310	65474	21	18	35	18	35	Insert the temperature unit after 0.66 +/-0.06 (Naeem Manzoor, Global Change Impact Studies Centre (GCISC))	Text removed
311	78508	21	18	40	0	0	"global *land* precipitation"? We do not have any observations for the other 70% (save barely calibrated satellite data for the last decade or so). (Dáithí Stone, University of Cape Town)	Text removed
312	83186	21	18	40	18	40	"low" and "medium confidence" should be italicized for clarity. (Katharine Mach, IPCC WGII TSU)	Done
313	78509	21	18	41	18	42	I do not understand this. Does this mean that new precipitation products indicate that the AR4 estimate was wrong? If so then please provide references. (Dáithí Stone, University of Cape Town)	Text removed
314	67053	21	18	42	18	42	For consistency elsewhere, replace 'NH' with 'Northern Hemisphere'. (Peter Burt, University of Greenwich)	Done
315	83187	21	18	43	18	43	"low confidence" should be italicized for clarity. (Katharine Mach, IPCC WGII TSU)	Done
316	69631	21	18	49	18	50	We raise a similar remark as for page 3, lines 20 - 22. (NETHERLANDS)	Text removed
317	78510	21	18	50	0	0	As well as an expected lower signal/noise ratio. (Dáithí Stone, University of Cape Town)	Text removed
318	65475	21	19	5	19	5	Units of change are not mentioned with the values " 0.9 for temperature " and " 0.8 for precipitation " (Naeem Manzoor, Global Change Impact Studies Centre (GCISC))	These are correlation coefficients, so unitless
319	67054	21	19	5	19	5	Capital 'C' required for 'chapter' (in this context it is a proper noun and is also in keeping with other usage in the document). (Peter Burt, University of Greenwich)	Done
320	67055	21	19	10	19	10	Capital 'C' required for 'chapter' (in this context it is a proper noun and is also in keeping with other usage in the document). (Peter Burt, University of Greenwich)	Done
321	83188	21	19	11	19	11	It would be preferable to specify the relevant chapter subsections from Working Group I. (Katharine Mach, IPCC WGII TSU)	Done



#	ID	Ch	From Page	From Line	To Page	To Line	Comment	Response
322	61554	21	19	15	19	18	Would be useful to state how the CMIP5 ranges for 2081-2100 temperature projections relate to CMIP3 (SRES) based assessments. Are the ranges similar? (European Union DG Research, Directorate Environment Climate Change & Environmental Risks Unit)	Text removed
323	64733	21	19	17	0	0	please use 30 year periods for comparisons (Frank Kreienkamp, Climate & Environment Consulting Potsdam GmbH)	Text removed
324	74336	21	19	17	0	0	This is an example of a sentence laden parenthesis that obscures the science. (UNITED STATES OF AMERICA)	Text removed
325	83189	21	19	17	19	18	Specific line-of-sight references in support of this statement should be provided. (Katharine Mach, IPCC WGII TSU)	Text removed
326	64734	21	19	17	19	30	in those 11 lines you are using 20 and 30 year periods and two reference periods 1986-2005 and 1961-90 and and two different target periods 2081-2100 and 2070-2100. Please change to 30 year periods and a standard climate reference period (1971-2000) and target periods starting with a year xxx1. (Frank Kreienkamp, Climate & Environment Consulting Potsdam GmbH)	The text including the 20-year periods has been removed
327	67056	21	19	22	19	22	For consistency elsewhere, replace 'NH' with 'Northern Hemisphere'. (Peter Burt, University of Greenwich)	Done
328	67057	21	19	23	19	23	For clarity, spell out months. (Peter Burt, University of Greenwich)	Done
329	83190	21	19	35	19	38	It would be preferable to provide cross-reference to the specific relevant chapter sections from working group 1. (Katharine Mach, IPCC WGII TSU)	Done
330	67058	21	19	40	19	40	Capital 'C' required for 'chapter' (in this context it is a proper noun and is also in keeping with other usage in the document). (Peter Burt, University of Greenwich)	Done
331	69889	21	19	45	0	0	Box 21-3: Some section could benefit from more details regarding tipping points. These are mentioned for the sea level and cryosphere sections, but perhaps could also be discussed in ENSO, monsoon and Amazon forest sections. (John Caesar, Met Office Hadley Centre)	This box is meant to provide an introduction to overview climate projection information and not go into details such as tipping points (which are not mentioned anywhere in the draft so this aspect of the comment is a little confusing).
332	84781	21	20	5	20	32	Please consider ways to refine the clarity of this caption as the figure itself is updated, particularly the descriptions of categories of results displayed. The TSU can assist with this process if desired. (Michael Mastrandrea, IPCC WGII TSU)	Caption will be significantly revised in line with the cross-chapter regional climate box.
333	67059	21	20	6	20	6	'et al.' should be in italics. (Peter Burt, University of Greenwich)	It appears that standard procedure in IPCC reports is not to have "et al." in italics
334	67060	21	20	7	20	7	'et al.' should be in italics. (Peter Burt, University of Greenwich)	It appears that standard procedure in IPCC reports is not to have "et al." in italics
335	67061	21	20	7	20	7	Capital 'C' required for 'chapter' (in this context it is a proper noun and is also in keeping with other usage in the document). (Peter Burt, University of Greenwich)	Done
336	67062	21	20	8	20	8	Capital 'C' required for 'chapter' (in this context it is a proper noun and is also in keeping with other usage in the document). (Peter Burt, University of Greenwich)	Done
337	67063	21	20	9	20	9	'et al.' should be in italics. (Peter Burt, University of Greenwich)	It appears that standard procedure in IPCC reports is not to have "et al." in italics
338	83191	21	20	13	20	29	These descriptors should be clarified to indicate that data are also presented for temperature. (Katharine Mach, IPCC WGII TSU)	Caption will be significantly revised in line with the cross-chapter regional climate box and will correctly described the data displayed.
339	84780	21	20	13	20	29	This description of the categories of results in the figure focus on precipitation, but these categories also apply to the temperature maps as well. Please clarify this. (Michael Mastrandrea, IPCC WGII TSU)	Caption will be significantly revised in line with the cross-chapter regional climate box and will correctly described the data displayed.
340	83192	21	20	22	20	25	Where 66% and 2/3 are mentioned, presumably the upper relevant bound (less than 90%) should also be specified? (Katharine Mach, IPCC WGII TSU)	Caption will be significantly revised in line with the cross-chapter regional climate box and will correctly described the data displayed.
341	69886	21	20	34	20	36	Useful to highlight here that shorter timescales could encompass extreme events. (John Caesar, Met Office Hadley Centre)	Agreed, text rephrased.
342	67064	21	20	43	20	43	Comma missing after author surname in references. (Peter Burt, University of Greenwich)	References are I standard IPCC format
343	57697	21	20	46	20	48	In Box 21-3, Figs. 21-2 to 21-4, a 30-year baseline later than 1961-1990 would make the results better comparable with the 1986-2005 baseline used elsewhere in the report. (Jouni Räisänen, University of Helsinki)	This would be less comparable with previous studies/reports which is the point of these figures.

#	ID	Ch	From Page	From Line	To Page	To Line	Comment	Response
344	64736	21	21	2	0	0	Really 2070-2100 or do you mean 2071-2100? (Frank Kreienkamp, Climate & Environment Consulting Potsdam GmbH)	2071-2100, text changed.
345	67065	21	21	4	21	4	'et al.' should be in italics. (Peter Burt, University of Greenwich)	It appears that standard procedure in IPCC reports is not to have "et al." in italics
346	67066	21	21	13	21	13	Change to 'et al.' and italicise (Peter Burt, University of Greenwich)	Will be addressed by copy-editing
347	67067	21	21	18	21	18	Change 'N' to 'North' (Peter Burt, University of Greenwich)	Will be addressed by copy-editing
348	69887	21	21	22	21	28	Box 21-3 Figure 3 Caption: If the 90th percentile temperature index described here is consistent with the standard ETCCDI index TX90 it is commonly referred to as 'warm days' as opposed to 'hot days'. (John Caesar, Met Office Hadley Centre)	Agreed, text rephrased.
349	64738	21	21	24	0	0	Really 2070-2100 or do you mean 2071-2100? (Frank Kreienkamp, Climate & Environment Consulting Potsdam GmbH)	2071-2100, text changed.
350	74337	21	21	27	21	27	Why capitalize "Hot"? (UNITED STATES OF AMERICA)	Changed to "warm".
351	69888	21	21	31	21	37	Box 21-3 Figure 4 Caption: It appears that the standard ETCCDI extremes indices used in WG1 may not be employed here, as 'very wet days' refers to days above the 95th percentile in the ETCCDI definition, whereas here it is the 90th percentile. Perhaps consider making it consistent, or making it clearer that the definitions are different and use a label other than 'very wet days'. (John Caesar, Met Office Hadley Centre)	Use of 90% percentile is important for sampling and consistency with the temperature figures so will clarify as requested.
352	57860	21	21	42	21	43	The two following article about pattern scaling approach assumption of normalized spatial patterns by global mean surface air temperatures (scaling patterns) are cited in Chapter 10 in AR5 WG I.. 1. Ishizaki, Y., H. Shiogama, S. Emori, T. Yokohata, T. Nozawa, T. Ogura, M. Abe M. Yoshimori, and K. Takahashi 2012: Dependencies of temperature scaling pattern on emission scenarios. Climatic Change Letter, Vol. 111 doi:10.1007/s10584-012-0430-8 2. Ishizaki, Y., H. Shiogama, S. Emori, T. Yokohata, T. Nozawa, K. Takahash, T. Ogura, M. Yoshimor, and T. Nagashima 2013 . Dependence of precipitation scaling pattern on emission scenarios for Representative concentration pathways. Journal of Climate, in press. Another article may be useful in this paragraph, although they may be not cited in AR5 WG I due to acceptance deadline 3. Ishizaki, Y., T. Yokohata, S. Emori, H. Shiogama, K. Takahashi, T. Nozawa, T. Nakaegawa, N. Hanasaki, T. Ogura and M. Yoshimori. Validation of a pattern scaling approach for determining the maximum available renewable freshwater resource. Journal of hydrometeorology. In second review. (Toshiyuki Nakaegawa, Meteorological Research Institute)	Done
353	67068	21	21	43	21	44	Delete 'in a recent' at italicise 'et al.' (Peter Burt, University of Greenwich)	it appears that standard procedure in IPCC reports is not to have "et al." in italics
354	67069	21	21	47	21	47	Capital 'C' required for 'chapter' (in this context it is a proper noun and is also in keeping with other usage in the document). (Peter Burt, University of Greenwich)	Done
355	67070	21	21	52	21	52	Delete comma after '.'. (Peter Burt, University of Greenwich)	Done
356	64739	21	22	4	22	6	Now you are comparing a 30 year period with a 20 year period.... (Frank Kreienkamp, Climate & Environment Consulting Potsdam GmbH)	We realize about this problem, bt the figure is taken from a published paper and we cannot change it.. It is just for illustrative purposes.
357	67071	21	22	6	22	6	'et al' should be in italics, with a full stop after the 'l' and a comma after the full stop. (Peter Burt, University of Greenwich)	Done
358	61555	21	22	9	22	22	This section notes that in the near-term (e.g. out to 2030s), the climate response to differing emissions levels (as represented by the RCPs) is relatively small. Important to note that the emissions profiles over this near-term period will affect the climate response in the medium and long terms. (European Union DG Research, Directorate Environment Climate Change & Environmental Risks Unit)	Good point. It has been added to the revised text.
359	78512	21	22	13	22	14	Well of course not GHG forcing because we have already emitted most of what will be there over the next ten years. (Dáithí Stone, University of Cape Town)	This sentence was changed.
360	67072	21	22	15	22	15	Comma missing after author surname in references. (Peter Burt, University of Greenwich)	Done
361	67073	21	22	16	22	17	Bad English: change to 'Global warming of 0.4-1.0 'deg' C for the period...' and delete 'of ..C' in line 17 (Peter Burt, University of Greenwich)	Done
362	65479	21	22	18	22	18	(There may be many omissions which needs to be corrected. Some examples are given below:) Insert the degree symbol ' ° ' after 0.4 (Naeem Manzoor, Global Change Impact Studies Centre (GCISC))	We have checked the text for omissions

#	ID	Ch	From Page	From Line	To Page	To Line	Comment	Response
363	83193	21	22	18	22	30	It would be preferable to provide the specific relevant chapter subsections from the working group 1 contribution. (Katharine Mach, IPCC WGII TSU)	Done
364	67074	21	22	20	22	20	Don't italicise 'that'. (Peter Burt, University of Greenwich)	Done
365	78513	21	22	20	22	22	Supposedly this is a projection rather than a likelihood forecast, which would depend on the probability of an explosive volcanic eruption, changes in aerosol emissions, etc. (Dáithí Stone, University of Cape Town)	This is specified in the beginning of the paragraph.
366	83194	21	22	26	22	29	On lines 26 and 29, "medium evidence" should be italicized for clarity. (Katharine Mach, IPCC WGII TSU)	This sentence was removed.
367	57698	21	22	33	22	37	Please also mention where the predictability comes from when it is not associated with model initialization: it reflects the forced (mainly greenhouse gas induced) climate change in the models and the real world. On a decadal time scale, this is already the most important source of predictability in most areas (e.g. WG1 SOD Figs. 11.4 and 11.7). (Jouni Räisänen, University of Helsinki)	This sentence was removed.
368	69632	21	22	35	22	35	Add WGI in the section reference. (NETHERLANDS)	Done
369	67075	21	22	44	22	44	'et al.' should be in italics. (Peter Burt, University of Greenwich)	It appears that standard procedure in IPCC reports is not to have "et al." in italics
370	67076	21	22	47	22	47	Capital 'C' required for 'chapter' (in this context it is a proper noun and is also in keeping with other usage in the document). (Peter Burt, University of Greenwich)	Done
371	69633	21	22	48	22	50	Please add more specific references of this conclusion, in particular from the WGI report. See the comment for page 3, lines 30-32. (NETHERLANDS)	Relevant sub-section references added.
372	67077	21	22	50	22	50	Comma missing after author surname in references. (Peter Burt, University of Greenwich)	Done
373	83195	21	23	1	23	1	Beyond the overall references provided here, it would be preferable to specify further the relevant chapter subsections from these reports. (Katharine Mach, IPCC WGII TSU)	Relevant WG1 references added and text modified accordingly.
374	67078	21	23	6	23	6	'et al' should be in italics, with a full stop after the 'l' and a comma after the full stop. (Peter Burt, University of Greenwich)	It appears that standard procedure in IPCC reports is not to have "et al." in italics
375	67079	21	23	7	23	7	'et al' should be in italics, with a full stop after the 'l' and a comma after the full stop. (Peter Burt, University of Greenwich)	It appears that standard procedure in IPCC reports is not to have "et al." in italics
376	67080	21	23	9	23	9	'et al' should be in italics, with a full stop after the 'l' and a comma after the full stop. (Peter Burt, University of Greenwich)	It appears that standard procedure in IPCC reports is not to have "et al." in italics
377	67081	21	23	11	23	11	'et al.' should be in italics. (Peter Burt, University of Greenwich)	It appears that standard procedure in IPCC reports is not to have "et al." in italics
378	69634	21	23	11	23	17	It may be considered to summarize the monsoon changes per region in a table. The summary does not address all regional key information given in chapter 14 of the WGI report. (NETHERLANDS)	We reformulated this paragraph, however, specific regional responses of different monsoon systems can be found in the WGI report.
379	85135	21	23	11	23	17	The statement assumed is not appropriate in the whole paragraph without specifying its appropriate confidence level, which is either high, medium or low confidence, as justified and reported in the cited literature/ literatures. (MALAYSIA)	A likelihood statement has been added following the WGI Chapter 14 assessment.
380	67082	21	23	12	23	12	Capital 'C' required for 'chapter' (in this context it is a proper noun and is also in keeping with other usage in the document). (Peter Burt, University of Greenwich)	Done
381	60352	21	23	22	23	23	Replace the web link by a publication, which is more permanent than a link. (Andrew Ferrone, Public Research Centre - Gabriel Lippmann)	Done
382	67083	21	23	26	23	26	'enye' required over Ns of Nino and Nina. (Peter Burt, University of Greenwich)	Done
383	67084	21	23	31	23	31	'et al.' should be in italics. (Peter Burt, University of Greenwich)	It appears that standard procedure in IPCC reports is not to have "et al." in italics
384	67085	21	23	35	23	35	'model' should be 'mode' (Peter Burt, University of Greenwich)	Done
385	67086	21	23	35	23	35	Change to 'Northern Hemisphere' (cf page 22, line 37). (Peter Burt, University of Greenwich)	Done
386	83196	21	23	35	23	35	Presumably "mode" not "model" is meant here? (Katharine Mach, IPCC WGII TSU)	Done
387	67087	21	23	38	23	38	'model' should be 'mode'. (Peter Burt, University of Greenwich)	Done
388	67088	21	23	39	23	39	Capital 'C' required for 'chapter' (in this context it is a proper noun and is also in keeping with other usage in the document). (Peter Burt, University of Greenwich)	Done
389	74338	21	23	42	0	0	Model discussion beginning on P23 L42. This section is in sharp contrast with the preceding section where the information is direct and concise. This section needs to be shorter. It is over 3 pages long much more detailed than accompanying sections. (UNITED STATES OF AMERICA)	This section was greatly shortened

#	ID	Ch	From Page	From Line	To Page	To Line	Comment	Response
390	83197	21	23	42	0	0	Section 21.3.3.1.6. In revision, this section should be substantially shortened. The chapter team should provide cross-reference, as well, to specific relevant key findings from working group 1 where possible. (Katharine Mach, IPCC WGII TSU)	This section was greatly shortened
391	69635	21	23	42	23	42	We find this section out of balance compared to the other sections. This section tries to summarize the huge amount of regional projections, with overlap with WGI chapter 11 in some parts and with complementary information in other parts. The difference between dynamical and statistical downscaling is not clear. Also the attention given to different regions is not clear and out of balance too. One suggestion might be to focus on the downscaling techniques and move the results to the different regional chapters. We also suggest to better tune this information with chapter 11 of WGI. (NETHERLANDS)	This section was greatly shortened. Now it just provides a brief summary of main results deriving from downscaling studies.
392	67089	21	23	46	23	46	'et al' should be in italics, with a full stop after the 'l' and a comma after the full stop. (Peter Burt, University of Greenwich)	It appears that standard procedure in IPCC reports is not to have "et al." in italics
393	78514	21	23	53	24	36	It seems as though this paragraph has several times as many citations as the twenty preceding pages combined. (Dáithí Stone, University of Cape Town)	This section was greatly shortened and made more in line with the toehrs.
394	67090	21	23	54	23	54	'et al' should be in italics, with a full stop after the 'l' and a comma after the full stop. (Peter Burt, University of Greenwich)	It appears that standard procedure in IPCC reports is not to have "et al." in italics
395	67091	21	23	54	23	54	Comma missing after author surname in references. (Peter Burt, University of Greenwich)	Done
396	74339	21	24	0	0	0	The very long section on the European downscaling experiment should be shortened, assuming the regional chapter will provide a fuller account. The other regions examined in this section on (results from downscaling experiments) are given considerably less detail and the treatment across regions should be consistent in this 'overview' document. (UNITED STATES OF AMERICA)	Notwithstanding the fact that much more literature on downscaling experiments is available for Europe than other regions, this part of the section was greatly reduced.
397	67092	21	24	1	24	1	Comma missing after author surname in references. (Peter Burt, University of Greenwich)	Done
398	67093	21	24	1	24	1	Delete space after 'scenarios' (Peter Burt, University of Greenwich)	Done
399	67094	21	24	5	24	5	Change 'Northern' to 'northern'. (Peter Burt, University of Greenwich)	Done
400	67095	21	24	7	24	7	Comma missing after author surname in reference. (Peter Burt, University of Greenwich)	Done
401	67096	21	24	10	24	10	Comma missing after author surname in reference. (Peter Burt, University of Greenwich)	Done
402	67097	21	24	10	24	10	'et al' should be in italics, with a full stop after the 'l' and a comma after the full stop. (Peter Burt, University of Greenwich)	It appears that standard procedure in IPCC reports is not to have "et al." in italics
403	67098	21	24	11	24	12	Comma missing after author surname in reference. (Peter Burt, University of Greenwich)	Done
404	67099	21	24	11	24	12	'et al' should be in italics, with a full stop after the 'l' and a comma after the full stop. (Peter Burt, University of Greenwich)	It appears that standard procedure in IPCC reports is not to have "et al." in italics
405	67100	21	24	14	24	14	'et al' should be in italics, with a full stop after the 'l' and a comma after the full stop. (Peter Burt, University of Greenwich)	It appears that standard procedure in IPCC reports is not to have "et al." in italics
406	67101	21	24	14	24	14	Comma missing after author surname in reference. (Peter Burt, University of Greenwich)	Done
407	67102	21	24	15	24	15	'et al' should be in italics, with a full stop after the 'l' and a comma after the full stop. (Peter Burt, University of Greenwich)	It appears that standard procedure in IPCC reports is not to have "et al." in italics
408	67103	21	24	16	24	16	Lower case 'C' and 'S' required. (Peter Burt, University of Greenwich)	Done
409	67104	21	24	17	24	17	'et al' should be in italics, with a full stop after the 'l' and a comma after the full stop. (Peter Burt, University of Greenwich)	It appears that standard procedure in IPCC reports is not to have "et al." in italics
410	67105	21	24	18	24	18	Lower case 'C' and 'W' and 'N' required. (Peter Burt, University of Greenwich)	Done
411	67106	21	24	18	24	18	'et al' should be in italics, with a full stop after the 'l' and a comma after the full stop. (Peter Burt, University of Greenwich)	It appears that standard procedure in IPCC reports is not to have "et al." in italics
412	67107	21	24	19	24	19	'et al' should be in italics, with a full stop after the 'l' and a comma after the full stop. (Peter Burt, University of Greenwich)	It appears that standard procedure in IPCC reports is not to have "et al." in italics
413	67108	21	24	19	24	19	Comma missing after author surname in reference. (Peter Burt, University of Greenwich)	Done
414	67109	21	24	20	24	20	Comma missing after author surname in reference. (Peter Burt, University of Greenwich)	Done
415	67110	21	24	20	24	20	'et al' should be in italics, with a full stop after the 'l' and a comma after the full stop. (Peter Burt, University of Greenwich)	It appears that standard procedure in IPCC reports is not to have "et al." in italics
416	67111	21	24	23	24	23	'et al' should be in italics, with a full stop after the 'l' and a comma after the full stop. (Peter Burt, University of Greenwich)	It appears that standard procedure in IPCC reports is not to have "et al." in italics
417	67112	21	24	24	24	24	Comma missing after author surname in reference. (Peter Burt, University of Greenwich)	Done

#	ID	Ch	From Page	From Line	To Page	To Line	Comment	Response
418	67113	21	24	24	24	24	'et al' should be in italics, with a full stop after the 'l' and a comma after the full stop. (Peter Burt, University of Greenwich)	It appears that standard procedure in IPCC reports is not to have "et al." in italics
419	67114	21	24	25	24	25	'et al' should be in italics, with a full stop after the 'l' and a comma after the full stop. (Peter Burt, University of Greenwich)	It appears that standard procedure in IPCC reports is not to have "et al." in italics
420	67115	21	24	25	24	25	Comma missing after author surname in reference. (Peter Burt, University of Greenwich)	Done
421	67116	21	24	26	24	26	Comma missing after author surname in reference. (Peter Burt, University of Greenwich)	Done
422	67117	21	24	27	24	27	Comma missing after author surname in reference. (Peter Burt, University of Greenwich)	Done
423	67118	21	24	27	24	27	'et al' should be in italics, with a full stop after the 'l' and a comma after the full stop. (Peter Burt, University of Greenwich)	It appears that standard procedure in IPCC reports is not to have "et al." in italics
424	59502	21	24	27	24	28	There are some relevant studies for Greece. See for example: Zanis et al. (2009); Tolika et al., 2012 Zanis P., I. Kapsomenakis, C. Philandras, K. Douvis, D. Nikolakis, E. Kanelopoulou, C. Zerefos, and C. Repapis, Analysis of an ensemble of present-day and future Regional Climate Simulations for Greece, International Journal of Climatology, 29, 1614-1633, DOI: 10.1002/joc.1809, 2009. Tolika K., P. Zanis, C. Anagnostopoulou, Regional climate change scenarios for Greece: Future temperature and precipitation projections from ensembles of RCMs, Global Nest Journal, 14(4), 407-421, 2012. (Prodromos Zanis, Department of Meteorology and Climatology, School of Geology, Aristotle University of Thessaloniki, Greece) (GREECE)	References added
425	67119	21	24	29	24	29	'et al' should be in italics, with a full stop after the 'l' and a comma after the full stop. (Peter Burt, University of Greenwich)	It appears that standard procedure in IPCC reports is not to have "et al." in italics
426	67120	21	24	29	24	29	Delete space after 'projections'. (Peter Burt, University of Greenwich)	Done
427	67121	21	24	31	24	31	Lower case 'N' for 'Northern'. (Peter Burt, University of Greenwich)	Done
428	67122	21	24	31	24	32	'et al' should be in italics, with a full stop after the 'l' and a comma after the full stop. (Peter Burt, University of Greenwich)	It appears that standard procedure in IPCC reports is not to have "et al." in italics
429	67123	21	24	31	24	32	References should be in chronological order (and alphabetical order in the years). (Peter Burt, University of Greenwich)	Done
430	61549	21	24	34	0	0	Jacob et al, 2013 is mentioned in this line, but is missing in the references p70, l16 (European Union DG Research, Directorate Environment Climate Change & Environmental Risks Unit)	Done
431	67124	21	24	34	24	34	'et al' should be in italics, with a full stop after the 'l' and a comma after the full stop. (Peter Burt, University of Greenwich)	It appears that standard procedure in IPCC reports is not to have "et al." in italics
432	61550	21	24	38	24	51	Studies about the added value of dynamical downscaling over southern Africa are missing. Eg Haensler, A., Hagemann, S., & Jacob, D. (2011). Dynamical downscaling of ERA40 reanalysis data over southern Africa: added value in the simulation of the seasonal rainfall characteristics. International Journal of Climatology, 31(15), 2338-2349. (European Union DG Research, Directorate Environment Climate Change & Environmental Risks Unit)	Reference added
433	67125	21	24	41	24	41	'et al' should be in italics, with a full stop after the 'l' and a comma after the full stop. (Peter Burt, University of Greenwich)	It appears that standard procedure in IPCC reports is not to have "et al." in italics
434	67126	21	24	45	24	45	'et al.' should be in italics. (Peter Burt, University of Greenwich)	It appears that standard procedure in IPCC reports is not to have "et al." in italics
435	67127	21	24	46	24	46	'et al.' should be in italics. (Peter Burt, University of Greenwich)	It appears that standard procedure in IPCC reports is not to have "et al." in italics
436	67128	21	24	49	24	49	Capital 'C' required for 'chapter' (in this context it is a proper noun and is also in keeping with other usage in the document). (Peter Burt, University of Greenwich)	Done
437	67129	21	24	53	24	53	Comma missing after author surname in reference. (Peter Burt, University of Greenwich)	Done
438	67130	21	24	54	24	54	'et al' should be in italics, with a full stop after the 'l' and a comma after the full stop. (Peter Burt, University of Greenwich)	It appears that standard procedure in IPCC reports is not to have "et al." in italics
439	67131	21	25	1	25	1	'et al.' should be in italics. (Peter Burt, University of Greenwich)	It appears that standard procedure in IPCC reports is not to have "et al." in italics
440	67132	21	25	2	25	2	'et al' should be in italics, with a full stop after the 'l' and a comma after the full stop. (Peter Burt, University of Greenwich)	It appears that standard procedure in IPCC reports is not to have "et al." in italics
441	60353	21	25	3	25	6	Please also cite Görden, Klaus: Assessment of climate change impacts on discharge in the Rhine River Basin: Results of the RheinBlick2050 project. Lelystad : CHR, 2010. - ISBN 978-90-70980-35-1 " for the use of a weather generator to optimize inputs for hydrological models. (Andrew Ferrone, Public Research Centre - Gabriel Lippmann)	Done
442	67133	21	25	5	25	5	Capital 'W' for 'west'. (Peter Burt, University of Greenwich)	Done

#	ID	Ch	From Page	From Line	To Page	To Line	Comment	Response
443	67134	21	25	17	25	17	'et al' should be in italics, with a full stop after the 'l' and a comma after the full stop. (Peter Burt, University of Greenwich)	it appears that standard procedure in IPCC reports is not to have "et al." in italics
444	67135	21	25	20	25	20	Delete full stop before 'l'. (Peter Burt, University of Greenwich)	Done
445	67136	21	25	20	25	20	'et al' should be in italics, with a full stop after the 'l' and a comma after the full stop. (Peter Burt, University of Greenwich)	it appears that standard procedure in IPCC reports is not to have "et al." in italics
446	67137	21	25	22	25	22	Delete first 'the' and 'continent'. (Peter Burt, University of Greenwich)	Done
447	67138	21	25	23	25	23	'et al' should be in italics, with a full stop after the 'l' and a comma after the full stop. (Peter Burt, University of Greenwich)	it appears that standard procedure in IPCC reports is not to have "et al." in italics
448	67139	21	25	23	25	23	References should be in chronological order (and alphabetical order in the years). (Peter Burt, University of Greenwich)	Done
449	67140	21	25	24	25	24	'et al' should be in italics, with a full stop after the 'l' and a comma after the full stop. (Peter Burt, University of Greenwich)	it appears that standard procedure in IPCC reports is not to have "et al." in italics
450	67141	21	25	25	25	25	Small 's' for 'Southern'. (Peter Burt, University of Greenwich)	Done
451	67142	21	25	25	25	25	'et al' should be in italics, with a full stop after the 'l' and a comma after the full stop. (Peter Burt, University of Greenwich)	it appears that standard procedure in IPCC reports is not to have "et al." in italics
452	67143	21	25	32	25	32	Insert commas either side of 'however'. (Peter Burt, University of Greenwich)	Done
453	67144	21	25	32	25	32	'et al.' should be in italics. (Peter Burt, University of Greenwich)	It appears that standard procedure in IPCC reports is not to have "et al." in italics
454	67145	21	25	34	25	34	'et al.' should be in italics. (Peter Burt, University of Greenwich)	It appears that standard procedure in IPCC reports is not to have "et al." in italics
455	67146	21	25	35	25	35	'et al.' should be in italics. (Peter Burt, University of Greenwich)	It appears that standard procedure in IPCC reports is not to have "et al." in italics
456	67147	21	25	39	25	39	'et al.' should be in italics. (Peter Burt, University of Greenwich)	It appears that standard procedure in IPCC reports is not to have "et al." in italics
457	67148	21	25	44	25	44	'et al.' should be in italics. (Peter Burt, University of Greenwich)	It appears that standard procedure in IPCC reports is not to have "et al." in italics
458	67149	21	25	48	25	48	Change 'shown' to 'showed'. (Peter Burt, University of Greenwich)	Done
459	67150	21	26	1	26	1	'et al.' should be in italics. (Peter Burt, University of Greenwich)	It appears that standard procedure in IPCC reports is not to have "et al." in italics
460	67151	21	26	5	26	5	'et al.' should be in italics. (Peter Burt, University of Greenwich)	It appears that standard procedure in IPCC reports is not to have "et al." in italics
461	67152	21	26	5	26	5	Comma missing after author surname in reference. (Peter Burt, University of Greenwich)	Done
462	60354	21	26	5	26	6	Are small scale dynamics (like convection) not also relevant at this level, and can only be resolved by higher resolved models? Please discuss. (Andrew Ferrone, Public Research Centre - Gabriel Lippmann)	This sentence was removed.
463	67153	21	26	9	26	9	Comma missing after author surname in reference. (Peter Burt, University of Greenwich)	Done
464	67154	21	26	9	26	9	'et al' should be in italics, with a full stop after the 'l' and a comma after the full stop. (Peter Burt, University of Greenwich)	It appears that standard procedure in IPCC reports is not to have "et al." in italics
465	67155	21	26	9	26	10	References should be in chronological order (and alphabetical order in the years). (Peter Burt, University of Greenwich)	Done
466	67156	21	26	10	26	10	Insert full stop after first 'l'. (Peter Burt, University of Greenwich)	Done
467	67157	21	26	10	26	10	'et al.' should be in italics. (Peter Burt, University of Greenwich)	It appears that standard procedure in IPCC reports is not to have "et al." in italics
468	79088	21	26	15	26	19	Please explain what CCSM, MM5 etc. stand for. (Joachim Rock, Johann Heinrich von Thuenen-Institute, Federal Research Institute for Rural Areas, Forestry and Fisheries)	Reference to specific models was removed.
469	57699	21	26	16	26	19	Please indicate the emissions scenario used. (Jouni Räisänen, University of Helsinki)	The figure was removed.
470	67158	21	26	19	26	19	'et al.' should be in italics. (Peter Burt, University of Greenwich)	It appears that standard procedure in IPCC reports is not to have "et al." in italics
471	67159	21	26	21	26	21	Why use 'in prep.' as a citation here? Most journals would not publish this, what happens if the paper is rejected? Much more robust to keep to papers already published (or which are known to be 'accepted/in press'). (Peter Burt, University of Greenwich)	Reference removed.

#	ID	Ch	From Page	From Line	To Page	To Line	Comment	Response
472	67160	21	26	22	26	22	'et al.' should be in italics. (Peter Burt, University of Greenwich)	It appears that standard procedure in IPCC reports is not to have "et al." in italics
473	67161	21	26	22	26	22	'et al' should be in italics, with a full stop after the 'l' and a comma after the full stop. (Peter Burt, University of Greenwich)	It appears that standard procedure in IPCC reports is not to have "et al." in italics
474	67162	21	26	23	26	23	Why use 'in prep./submitted' as a citation here? Most journals would not publish this, what happens if the paper is rejected? Much more robust to keep to papers already published (or which are known to be 'accepted/in press'). (Peter Burt, University of Greenwich)	Reference removed
475	71416	21	26	24	26	24	Which techniques are referred to? The wording is not clear. (CANADA)	statistical techniques. This was clarified.
476	67163	21	26	24	26	25	'et al.' should be in italics. (Peter Burt, University of Greenwich)	It appears that standard procedure in IPCC reports is not to have "et al." in italics
477	67164	21	26	27	26	27	Change 'underway' to 'under way' and insert comma after 'way'. (Peter Burt, University of Greenwich)	Done
478	67165	21	26	28	26	28	'et al.' should be in italics. (Peter Burt, University of Greenwich)	It appears that standard procedure in IPCC reports is not to have "et al." in italics
479	67905	21	26	30	26	47	Recommend the following sentences may be added in this paragraph as an example of successful projection of heavy rains and so on in Japan with 5-km grid spacing regional model; its resolution is higher than the ones already mentioned about other East Asian countries: "Even a few-km mesh model is necessary to simulate intense daily or hourly rainfall in this region. Using a 5-km mesh non-hydrostatic RCM nested within a 20-km mesh AGCM, Kitoh et al. (2009) and Kanada et al. (2012) projected a significant increase in intense daily precipitation around western Japan during the late Baiu season." Source: Kitoh, A., T. Ose, K Kurihara, S. Kusunoki, M. Sugi, and KAKUSHIN Team-3 Modeling Group, 2009: Projection of changes in future weather extremes using super-high-resolution global and regional atmospheric models in the KAKUSHIN Program: Results of preliminary experiments. Hydro Res. Lett., 3, 49-53. Kanada, S., M. Nakano and T. Kato, 2012: Projections of future changes in precipitation and the vertical structure of the frontal zone during the Baiu season in the vicinity of Japan using a 5-km mesh regional climate model. J. Meteor. Soc. Japan, 90A, 65-86. (JAPAN)	This material was added
480	67166	21	26	31	26	31	'et al.' should be in italics. (Peter Burt, University of Greenwich)	It appears that standard procedure in IPCC reports is not to have "et al." in italics
481	57158	21	26	31	26	34	"For example, Ashfaq et al (2009)... (WGI Chapter 14)." - I find it somewhat problematic only to refer to the study by Ashfaq et al. (2009) when discussing the projected changes in the Indian summer monsoon. This is because this paper is a kind of outlier, giving a future decrease of the monsoon rainfall over India, when compared to results from global climate models. But also some other RCM simulations give a future increase of the monsoon rainfall over India. See, for instance, the recent paper by P. Kumar et al. (2013) Downscaled climate change projections with uncertainty assessment over India using a high resolution multi-model approach, Science of the Total Environment, <a href="http://dx.doi.org/10.1016/j.scitotenv.2013.01.051">http://dx.doi.org/10.1016/j.scitotenv.2013.01.051</a> . (Wilhelm May, Danish Meteorological Institute)	We have added a comment in this regard
482	65476	21	26	33	26	33	Remove the letter "a" bewteen the word "and" & "an" (Naeem Manzoor, Global Change Impact Studies Centre (GCISC))	Done
483	67167	21	26	36	26	36	'et al.' should be in italics. (Peter Burt, University of Greenwich)	It appears that standard procedure in IPCC reports is not to have "et al." in italics
484	67168	21	26	40	26	40	Insert comma after 'Similarly'. (Peter Burt, University of Greenwich)	Done
485	67169	21	26	41	26	41	Change 'Korea' to 'Korean'. (Peter Burt, University of Greenwich)	Done
486	67170	21	26	41	26	41	'et al' should be in italics, with a full stop after the 'l' and a comma after the full stop. (Peter Burt, University of Greenwich)	It appears that standard procedure in IPCC reports is not to have "et al." in italics
487	67171	21	26	44	26	44	Change 'establish clearly' to 'clearly establish'. (Peter Burt, University of Greenwich)	Done
488	65145	21	26	49	27	5	Similar to comment I made on the FOD, I think discussion misses probably the most significant regional application of dynamic downsclaing in AUstralia: the large "Climate Futures Tasmania project". Various references follow here: Grose MR, Corney SP, Katzfey JJ, Bennett JC, Holz GK, White CJ, Bindoff NL 2012, A regional response in mean westerly circulation and rainfall to projected climate warming over Tasmania, Australia. Climate Dynamics, DOI 10.1007/s00382-012-1405-1 Grose MR, Pook MJ, McINTosh PC, Risbey JS, Bindoff NL 2012, The simulation of cutoff lows in regional climate models: reliability and projected trends. Climate Dynamics, 39: 445-459 Bennett JC, Ling FLN, Post DA, Grose MR, Corney SP, Graham B, Holz GK, Katzfey JJ, Bindoff NL 2012, High-resolution projections of surface water availability for Tasmania, Australia. Hydrol. Earth Syst. Sci., 16:1287-1303 (Penny Whetton, Commonwealth Scientific and Industrial Research Organization - Marine and Atmospheric Research)	Reference added

#	ID	Ch	From Page	From Line	To Page	To Line	Comment	Response
489	67172	21	26	50	26	50	'et al' should be in italics, with a full stop after the 'l' and a comma after the full stop. (Peter Burt, University of Greenwich)	It appears that standard procedure in IPCC reports is not to have "et al." in italics
490	67173	21	26	50	26	50	References should be in chronological order (and alphabetical order in the years). (Peter Burt, University of Greenwich)	Done
491	67174	21	26	52	26	52	'et al' should be in italics, with a full stop after the 'l' and a comma before the date. (Peter Burt, University of Greenwich)	It appears that standard procedure in IPCC reports is not to have "et al." in italics
492	67175	21	27	2	27	2	'et al' should be in italics, with a full stop after the 'l' and a comma before the date. (Peter Burt, University of Greenwich)	It appears that standard procedure in IPCC reports is not to have "et al." in italics
493	83198	21	27	10	28	2	Where the working group I contribution is referenced in these paragraphs, it would be preferable to provide specific line-of-sight references to relevant chapter sections wherever possible. (Katharine Mach, IPCC WGII TSU)	Done
494	65480	21	27	16	27	16	(There may be many omissions which needs to be corrected. Some examples are given below:) Insert the degree symbol ' ° ' after 2 - 3 (Naeem Manzoor, Global Change Impact Studies Centre (GCISC))	Done
495	67176	21	27	16	27	16	Degree symbol required. (Peter Burt, University of Greenwich)	Done
496	67177	21	27	17	27	17	Capital 'C' required for 'chapter' (in this context it is a proper noun and is also in keeping with other usage in the document). (Peter Burt, University of Greenwich)	Done
497	69636	21	27	20	27	22	Isn't it especially the combination between in situ (GPS) and satellite data (GRACE) that has led to an improved set of observations? (NETHERLANDS)	This sentence was removed.
498	67178	21	27	31	27	31	Subscript '2' in '02/N2' required (Peter Burt, University of Greenwich)	Done
499	58474	21	27	33	27	33	Add: (+0.35 and +0.54% proton H+ concentration yr-1) (Martin Pecheux, Institut des Foraminifères Symbiotiques)	This sentence was removed.
500	74340	21	27	35	0	0	Paragraph jumps time frames in that by the last sentence it is unclear what is the time interval for the 1.0m projected change??? (UNITED STATES OF AMERICA)	This sentence was removed.
501	67179	21	27	36	27	36	Capital 'C' required for 'chapter' (in this context it is a proper noun and is also in keeping with other usage in the document). (Peter Burt, University of Greenwich)	Done
502	67180	21	27	47	27	47	Capital 'C' required for 'chapter' (in this context it is a proper noun and is also in keeping with other usage in the document). (Peter Burt, University of Greenwich)	Done
503	64566	21	27	49	27	49	21.3.3.2. what is GLSL? (Lena Menzel, Alfred Wegener Institute for Polar and Marine Research)	Removed
504	78515	21	27	51	0	0	We only now encounter regional aspects in this subsection? Why not delete the above and cite the relevant WGI section(s)? (Dáithí Stone, University of Cape Town)	Done
505	83199	21	27	52	27	52	If a likelihood term, "likely" should be italicized. Casual usage should be avoided. (Katharine Mach, IPCC WGII TSU)	Done
506	78516	21	27	52	27	53	This depends on what you mean by dominated. Within 40 degrees of the Equator, probably. But not in polar regions where the location of the melting ice, and thus its effect on local crustal uplift and gravity, will be huge. (Dáithí Stone, University of Cape Town)	The sentence was removed
507	67181	21	28	5	28	6	'et al' should be in italics, with a full stop after the 'l' and a comma after the full stop. (Peter Burt, University of Greenwich)	It appears that standard procedure in IPCC reports is not to have "et al." in italics
508	67182	21	28	5	28	6	Comma missing after author surname in reference. (Peter Burt, University of Greenwich)	Done
509	67183	21	28	6	28	7	Split infinitive: move 'significantly' to after 'levels'. (Peter Burt, University of Greenwich)	Done
510	67184	21	28	7	28	7	'et al' should be in italics, with a full stop after the 'l' and a comma after the full stop. (Peter Burt, University of Greenwich)	It appears that standard procedure in IPCC reports is not to have "et al." in italics
511	67185	21	28	8	28	8	Comma missing after author surname in reference. (Peter Burt, University of Greenwich)	Done
512	69637	21	28	9	28	9	Subsidence of what? (NETHERLANDS)	Sentence removed
513	67186	21	28	10	28	10	Capital 'P' for 'Pacific and capital 'O' for 'Ocean' required. (Peter Burt, University of Greenwich)	Done
514	67187	21	28	13	28	13	Comma missing after author surname in reference. (Peter Burt, University of Greenwich)	Done
515	67188	21	28	13	28	13	'et al' should be in italics, with a full stop after the 'l' and a comma after the full stop. (Peter Burt, University of Greenwich)	It appears that standard procedure in IPCC reports is not to have "et al." in italics
516	67189	21	28	13	28	13	Insert comma after 'however'. (Peter Burt, University of Greenwich)	Done
517	83200	21	28	14	28	14	If a likelihood term, "likely" should be italicized. Casual usage should be avoided. (Katharine Mach, IPCC WGII TSU)	Removed



#	ID	Ch	From Page	From Line	To Page	To Line	Comment	Response
518	69638	21	28	17	28	20	The authors should be aware of the comment we gave in the SOD review of WGI regarding this conclusion. We suggested low confidence in the magnitude of the weakening. Drijfhout et al. (2012) evaluated a larger subset of models, showing a multi-model mean ensemble error is roughly 50% of the signal (which affects the level of agreement). Hence, the SPM and Chapter 12 make statements about the long-term projection of the AMOC that seem too strong, given the fact that the statements are based on analyzing only a subset of the models. We therefore made suggestions to adjust the text in chapter 12 and in the SPM of WGI and we recommend the authors of this section to follow the potential adjustments made by WGI. Reference: Drijfhout, SS, GJ van Oldenborgh and A Cimadoribus, 2012. Is a decline of AMOC causing the warming hole above the North Atlantic in observed and modeled warming patterns? JC, doi:10.1175/JCLI-D-12-00490.1, in press. (NETHERLANDS)	This sentence was removed.
519	78517	21	28	17	28	20	Why do we need to know this here? Are you just summarising WGI? (Dáithí Stone, University of Cape Town)	Sentence removed
520	67190	21	28	18	28	18	Capital 'C' required for 'chapter' (in this context it is a proper noun and is also in keeping with other usage in the document). (Peter Burt, University of Greenwich)	Done
521	67191	21	28	27	28	27	Insert comma after 'Therefore'. (Peter Burt, University of Greenwich)	Done
522	67192	21	28	28	28	28	Comma missing after author surname in reference. (Peter Burt, University of Greenwich)	Done
523	67193	21	28	28	28	28	'et al' should be in italics, with a full stop after the 'l' and a comma after the full stop. (Peter Burt, University of Greenwich)	It appears that standard procedure in IPCC reports is not to have "et al." in italics
524	67194	21	28	28	28	28	Reference date missing. (Peter Burt, University of Greenwich)	Fixed
525	59503	21	28	30	28	47	While it is mentioned that there exist many studies focusing on the effects of both climate and emission changes on air quality, the discussion in the remaining subsection is restricted only in the effects of climate change. The following review paper includes interesting material about future emissions: Uherek, E., T. Halenka, J. Borken-Kleefeld, Y. Balkanski, T. Berntsen, C. Borrego, M. Gauss, P. Hoor, K. Juda-Rezler, J. Lelieveld, D. Melas, K. Rypdal and S. Schmid (2010): Transport Impacts on Atmosphere and Climate: Land Transport. Atmospheric Environment Volume 44, Issue 37, Pages 4772-4816. (Dimitrios Melas, Department of Physics, Aristotle University of Thessaloniki, Greece) (GREECE)	Reference added
526	67195	21	28	34	28	36	'et al.' should be in italics. (Peter Burt, University of Greenwich)	It appears that standard procedure in IPCC reports is not to have "et al." in italics
527	67196	21	28	34	28	36	References should be in chronological order (and alphabetical order in the years). (Peter Burt, University of Greenwich)	Done
528	59504	21	28	43	28	45	There is a number of other recent regional studies on the climate change impacts on air quality over Europe from the EU-project CECILIA which are missing. These studies used both coarse (Katragkou et al., 2010; 2011; Zanis et al., 2011) and high resolution regional climate - air quality simulations (Huszar et al., 2011; Juda-Rezler et al., 2012) . Katragkou E., P. Zanis, I. Tegoulas, D. Melas, I. Kioutsioukis, B.C. Krüger, P. Huszar, T. Halenka, S. Rauscher, Decadal regional air quality simulations over Europe in present climate: near surface ozone sensitivity to external meteorological forcing, Atmospheric Chemistry and Physics, 10, 11805–11821, doi:10.5194/acp-10-11805-2010, 2010. Zanis P., E. Katragkou, I. Tegoulas, A. Poupkou, D. Melas, P. Huszar, F. Giorgi, Evaluation of near surface ozone in air quality simulations forced by a regional climate model over Europe for the period 1991-2000, Atmospheric Environment, 45, 6489-6500, doi:10.1016/j.atmosenv.2011.09.2011. Katragkou E., P. Zanis, I. Kioutsioukis, I. Tegoulas, D. Melas, B.C. Krüger, E. Coppola, Future climate change impacts on surface ozone from regional climate-air quality simulations over Europe, Journal of Geophysical Research, 116, D22307, doi:10.1029/2011JD015899, 2011. Huszar P., K. Juda-Rezler, T. Halenka, H. Chervenkov, D. Syrakov, B. C. Krueger, P. Zanis, D. Melas, E. Katragkou, M. Reizer, W. Trapp and M. Belda, Potential climate change impacts on ozone and PM levels over Central and Eastern Europe from high resolution simulations, Climate Research, 50, 51–68, doi: 10.3354/cr01036, 2011. (Prodromos Zanis, Department of Meteorology and Climatology, School of Geology, Aristotle University of Thessaloniki, Greece) Juda-Rezler K., M. Reizer, P. Huszar, B.C. Krüger, P. Zanis, D. Syrakov, E. Katragkou, W. Trapp, D. Melas, H. Chervenkov, I. Tegoulas, T. Halenka, On the effect of climate change on regional air quality over central-eastern Europe: concept, evaluation and future projections, Climate Research, 53, 179–203, doi: 10.3354/cr01072, 2012. (GREECE)	References added
529	67197	21	28	43	28	45	References should be in chronological order (and alphabetical order in the years). (Peter Burt, University of Greenwich)	Done
530	67198	21	28	43	28	45	References should be in chronological order (and alphabetical order in the years). (Peter Burt, University of Greenwich)	Done

#	ID	Ch	From Page	From Line	To Page	To Line	Comment	Response
531	79087	21	28	51	0	0	Please explain what "MDA8" stands for. (Joachim Rock, Johann Heinrich von Thuenen-Institute, Federal Research Institute for Rural Areas, Forestry and Fisheries)	Done
532	67199	21	28	53	28	53	'et al.' should be in italics. (Peter Burt, University of Greenwich)	It appears that standard procedure in IPCC reports is not to have "et al." in italics
533	83201	21	29	8	29	8	Casual usage of "likely" should be avoided, as it is a reserved likelihood term. (Katharine Mach, IPCC WGII TSU)	Sentence modified
534	83202	21	29	12	0	0	Section 21.3.3.4. Where the Working Group I contribution is referenced in this section, it would be preferable to provide specific line-of-sight references to relevant chapter sections wherever possible. (Katharine Mach, IPCC WGII TSU)	Done
535	66386	21	29	15	29	15	It should be important to add to sea level rise and atmospheric circulation (not circulations), a reference to changing ocean currents and the thermohaline circulation. (Carla Andreia Silva Mora, University of Lisbon)	Since this is a broad statement se directly added reference to the WGI relevant Chapter
536	74341	21	29	18	0	0	Section on the cryosphere, especially P29L18, suffers from confusion about land ice and s sea ice. It must be clarified when sea ice is being discussed and when land ice or ice sheets are being discussed. (UNITED STATES OF AMERICA)	We have more explicitly clarified when land or sea ice is treated
537	67200	21	29	21	29	21	'per' should be in italics. (Peter Burt, University of Greenwich)	Done
538	67201	21	29	22	29	22	Capital 'A' required for 'arctic'. (Peter Burt, University of Greenwich)	Done
539	66387	21	29	32	29	32	where "Antarctica" should read "Antarctic" (Carla Andreia Silva Mora, University of Lisbon)	Done
540	69639	21	29	34	29	34	Explain SLE. It is the first time in this document that the abbreviation is used. (NETHERLANDS)	Done
541	74342	21	29	37	0	0	Ice Shelves are thinning is probably the correct terminology P29L37. (UNITED STATES OF AMERICA)	Done
542	69640	21	29	38	29	39	We do not understand why only these relatively short periods are emphasized. Either try to focus on regional differences (which is the main purpose of this chapter) or mention the long-term trends in perspective consistent with chapter 3 and 4 of WGI in which one could mention the acceleration since 1993. (NETHERLANDS)	This statements are derived from the WGI report, which repted conclusions for these periods.
543	67202	21	29	41	29	41	'in situ' should be in italics (cf page 30, line 13) (Peter Burt, University of Greenwich)	Done
544	67203	21	29	43	29	43	Change 'northern hemisphere' to 'Northern Hemisphere'. (Peter Burt, University of Greenwich)	Done
545	67204	21	29	43	29	43	'per' should be in italics. (Peter Burt, University of Greenwich)	Done
546	69641	21	29	43	29	43	Add 'since the winter 1972-1973' consistent with chapter 4 WGI. (NETHERLANDS)	Sentence changed
547	67205	21	29	46	29	46	Capital 'C' required for 'chapter' (in this context it is a proper noun and is also in keeping with other usage in the document). (Peter Burt, University of Greenwich)	Done
548	67206	21	29	50	29	50	Capital 'C' required for 'chapter' (in this context it is a proper noun and is also in keeping with other usage in the document). (Peter Burt, University of Greenwich)	Done
549	69642	21	29	50	29	50	Please add what is ment with 'long-term'. (NETHERLANDS)	The term is unnecessary and has been removed
550	74343	21	29	53	29	53	insert "sea" before ice (UNITED STATES OF AMERICA)	Done
551	83203	21	30	1	30	8	The supporting subsections from working group I should be specified for these statements. (Katharine Mach, IPCC WGII TSU)	Done
552	74344	21	30	4	30	4	insert "sea" before ice (UNITED STATES OF AMERICA)	Done
553	83204	21	30	11	0	0	Section 21.4. For this section, the chapter team should carefully consider chapter 19's sections and assessment of indirect, long-distance, and transboundary effects. With further cross-referencing, this section could be substantially tightened and shortened. (Katharine Mach, IPCC WGII TSU)	Chapter 19 is now appropriately referenced, including sub-sections. Some shortening has been achieved and one Figure has been dropped.
554	63750	21	30	25	30	29	Literature confirming these statements should be added. Otherwise it looks arbitrarily. (GERMANY)	Example citations have been added
555	74345	21	30	28	0	0	Predisposing factor for regional vulnerability --- there must be a clearer way to state this. (UNITED STATES OF AMERICA)	Replaced with "contributory"
556	74346	21	30	52	0	0	non-trivial It would be better to use a positive description rather than a negative descriptor. (UNITED STATES OF AMERICA)	This appears on line 42. We have replaced "non-trivial" with "significant"
557	83205	21	31	12	31	12	Chapter 19 is also relevant. (Katharine Mach, IPCC WGII TSU)	Chapter 19 is now referenced as well.
558	71417	21	31	38	31	38	Using the concept of a "prospective impact" seems confusing. (CANADA)	This is now labelled "anticipated major impact"
559	83206	21	31	40	31	40	It would be preferable to specify the relevant subsections from chapter 28. (Katharine Mach, IPCC WGII TSU)	Sub-sections are now referenced (from the SOD)
560	67207	21	31	54	31	54	Reference does not make sense. (Peter Burt, University of Greenwich)	Referencing program error - corrected

#	ID	Ch	From Page	From Line	To Page	To Line	Comment	Response
561	74347	21	32	2	32	2	Change 21-11b to 21-10b or better yet condense sentence so only one citation necessary. (UNITED STATES OF AMERICA)	The citation is now corrected and only used once.
562	67208	21	32	14	32	14	'et al.' should be in italics. (Peter Burt, University of Greenwich)	It appears that standard procedure in IPCC reports is not to have "et al." in italics
563	67209	21	32	29	32	29	Insert comma after '9' (Peter Burt, University of Greenwich)	Implemented
564	67210	21	32	29	32	29	Delete comma after 'poverty'. (Peter Burt, University of Greenwich)	Implemented
565	83207	21	32	34	32	34	It would be preferable to specify the relevant subsections from chapter 25. (Katharine Mach, IPCC WGII TSU)	A Box is now cited
566	67211	21	32	41	32	41	'et al.' should be in italics. (Peter Burt, University of Greenwich)	It appears that standard procedure in IPCC reports is not to have "et al." in italics
567	69643	21	32	44	32	54	We suggest to add insights on the more recent developments of the EU ETS. (NETHERLANDS)	Sub-section deleted to save space. Issues are treated extensively in other chapters and by WG III.
568	70453	21	32	46	32	54	Delete, as covered in Ch. 14 of WG III. (Axel Michaelowa, University of Zurich)	Sub-section deleted to save space. Issues are treated extensively in other chapters and by WG III.
569	83208	21	32	47	32	47	It would be preferable to specify the relevant subsections from chapters 14-17. (Katharine Mach, IPCC WGII TSU)	Sub-section deleted to save space. Issues are treated extensively in other chapters and by WG III.
570	83209	21	33	3	0	0	Section 21.4.2. The chapter team should ensure consistency of material here with assessment occurring in chapters 12 and 19 especially. Cross-referencing should be used as much as possible to reduce overlap. (Katharine Mach, IPCC WGII TSU)	Cross-referencing has been strengthened, chapter 19 also referenced, and some text reduced to avoid unnecessary duplication.
571	84782	21	33	3	0	0	Section 21.4.2: Please consider and cross-reference the discussions and findings of Chapters 12 and 19 on these topics. (Michael Mastrandrea, IPCC WGII TSU)	Cross-referencing has been strengthened, chapter 19 also referenced, and some text reduced to avoid unnecessary duplication.
572	65159	21	33	11	33	11	Either the brackets around Martin, 2009 need to be removed or the word "by" be removed if brackets are to be kept around Martin, 2009 (Muhammad Munir Sheikh, Global Change Impact Studies Centre (GCISC))	Punctuation has been corrected
573	67212	21	33	11	33	11	Delete comma and move '(' to before '2009). (Peter Burt, University of Greenwich)	Punctuation has been corrected
574	67213	21	34	1	34	1	Reference does not make sense. (Peter Burt, University of Greenwich)	Referencing program error - corrected
575	83210	21	34	6	0	0	Section 21.4.3. For this section, the chapter team should carefully consider the assessment of chapters 4 and 6 and make more specific cross-reference to the key findings of those chapters, in reducing overlap and tightening this treatment. (Katharine Mach, IPCC WGII TSU)	More specific cross-referencing has been made to other chapters
576	84783	21	34	6	0	0	Section 21.4.3: Please consider and cross-reference the discussions and findings of Chapters 4 and 6 on these topics. (Michael Mastrandrea, IPCC WGII TSU)	More specific cross-referencing has been made to other chapters
577	67214	21	34	12	34	12	'per' should be in italics. (Peter Burt, University of Greenwich)	Copy editing to be done by the publisher.
578	67215	21	34	16	34	16	Delete comma after 'variables' (Peter Burt, University of Greenwich)	Implemented
579	65160	21	34	17	34	18	In line 17, the words "novel estimates" are placed within brackets and in line 18, "disappearing climates - Williams et al;2007" are put in brackets as reference. Actually both pertain to the same reference in lines 41 and 42 on page 78 and may be quoted accordingly. (Muhammad Munir Sheikh, Global Change Impact Studies Centre (GCISC))	The sentence has been reworked to clarify the origin of these terms.
580	67216	21	34	40	34	40	'et al.' should be in italics. (Peter Burt, University of Greenwich)	Copy editing to be done by the publisher.
581	83211	21	34	54	34	54	It would be preferable to specify the specific relevance of sections from these chapters, as part of further consideration of the key findings from the chapters and potential cross-referencing here. (Katharine Mach, IPCC WGII TSU)	More specific cross-referencing has been made to other chapters
582	83212	21	35	3	0	0	Section 21.4.4. For this subsection, the chapter team should carefully consider assessment in chapter 19, coordinating treatment and ensuring cross-referencing of relevant key findings from the chapter. (Katharine Mach, IPCC WGII TSU)	Together with Chapter 19, we have decided to change the terminology, so that Ch 19 no longer talks about hotspots. This should address the concerns by this reviewer
583	84784	21	35	3	0	0	Section 21.4.4: Hotspots are also treated in Chapter 19, and it would be very useful to coordinate and cross-reference the discussions and findings there. (Michael Mastrandrea, IPCC WGII TSU)	Together with Chapter 19, we have decided to change the terminology, so that Ch 19 no longer talks about hotspots. This should address the concerns by this reviewer
584	67217	21	35	11	35	11	'et al' should be in italics, with a full stop after the 'l' and a comma after the full stop. (Peter Burt, University of Greenwich)	Technical editing to be done on final draft

#	ID	Ch	From Page	From Line	To Page	To Line	Comment	Response
585	67218	21	35	13	35	13	'et al' should be in italics, with a full stop after the 'l' and a comma after the full stop. (Peter Burt, University of Greenwich)	Technical editing to be done on final draft
586	70689	21	35	21	35	30	I find it strange not including the Antarctic Peninsula as a hot spot, since it qualifies with the definition provided and several studies present it has a hot spot of changes in climate and the cryosphere. Please check this. (Goncalo Vieira, University of Lisbon)	The point here is not to identify specific areas, but rather to discuss the concept of hotspots. In fact, the text actually says that identifying specific regions as hotspots can be problematic and explains why. This reviewer comment is in <u>many ways a case in point</u> .
587	67219	21	35	23	35	23	Comma missing after author surname in reference. (Peter Burt, University of Greenwich)	Technical editing to be done on final draft
588	67220	21	35	25	35	25	'et al.' should be in italics. (Peter Burt, University of Greenwich)	Technical editing to be done on final draft
589	67221	21	35	27	35	27	Capital 'C' required for 'chapter' (in this context it is a proper noun and is also in keeping with other usage in the document). (Peter Burt, University of Greenwich)	Technical editing to be done on final draft
590	67222	21	35	29	35	29	Lower case 'N' for 'Northern'. (Peter Burt, University of Greenwich)	Technical editing to be done on final draft
591	67223	21	35	31	35	31	'et al.' should be in italics. (Peter Burt, University of Greenwich)	Technical editing to be done on final draft
592	67224	21	35	34	35	34	Capital 'C' required for 'chapter' (in this context it is a proper noun and is also in keeping with other usage in the document). (Peter Burt, University of Greenwich)	Technical editing to be done on final draft
593	67225	21	35	40	35	41	Comma missing after author surname in reference. (Peter Burt, University of Greenwich)	Technical editing to be done on final draft
594	67226	21	35	42	35	42	'there is disconnect in timescales' does not make sense. (Peter Burt, University of Greenwich)	Technical editing to be done on final draft
595	83213	21	36	3	36	3	Casual usage of "likely" should be avoided as it is a reserved likelihood term. (Katharine Mach, IPCC WGII TSU)	In this case, likely is not used to qualify climate change related information, but rather as a synonym for probable. It has been changed to 'may'
596	83214	21	36	5	36	5	Casual usage of "likely" should be avoided as it is a reserved likelihood term. (Katharine Mach, IPCC WGII TSU)	In this case, likely is not used to qualify climate change related information, but rather as a synonym for probable. It has been changed to 'may'
597	67227	21	36	6	36	6	'et al' should be in italics, with a full stop after the 'l' and a comma after the full stop. (Peter Burt, University of Greenwich)	Technical editing to be done on final draft
598	67228	21	36	10	36	10	'et al' should be in italics, with a full stop after the 'l' and a comma after the full stop. (Peter Burt, University of Greenwich)	Technical editing to be done on final draft
599	67229	21	36	14	36	14	'et al' should be in italics, with a full stop after the 'l' and a comma after the full stop. (Peter Burt, University of Greenwich)	Technical editing to be done on final draft
600	67230	21	36	19	36	19	'et al' should be in italics, with a full stop after the 'l' and a comma before the date. (Peter Burt, University of Greenwich)	Technical editing to be done on final draft
601	74348	21	36	21	38	40	Discussion of Vulnerability and Adaptation Analyses is too long and should be shortened the wandering discussion of indicators, hotspots vulnerability and adaptation should be tightened. (UNITED STATES OF AMERICA)	Agreed. This is now much more focussed
602	78531	21	36	23	54	14	I am not quite seeing the "regional context" in most of this section. (Dáithí Stone, University of Cape Town)	Good point, and this is now better explained in the intro
603	83215	21	36	38	0	0	Section 21.5.1. In further developing this section, the chapter team should further consider the assessment and findings of chapter 14, cross-referencing them wherever appropriate. (Katharine Mach, IPCC WGII TSU)	Yes, this has been done.
604	67231	21	36	40	36	40	'et al' should be in italics, with a full stop after the 'l' and a comma after the full stop. (Peter Burt, University of Greenwich)	Technical editing to be done on final draft
605	67232	21	36	40	36	40	Comma missing after author surname in reference. (Peter Burt, University of Greenwich)	Technical editing to be done on final draft
606	74349	21	36	41	0	0	Right not clear why necessary to state some are well established. Please delete phrase. (UNITED STATES OF AMERICA)	Removed. The point here was to explain that some of the methodologies are developed only for a specific project and not reused, but others appear to have more flexibility in their <u>usefulness</u>
607	67233	21	36	49	36	49	Comma missing after author surname in reference. (Peter Burt, University of Greenwich)	Technical editing to be done on final draft
608	67234	21	37	1	36	3	'et al' should be in italics, with a full stop after the 'l' and a comma after the full stop. (Peter Burt, University of Greenwich)	Technical editing to be done on final draft
609	67235	21	37	1	36	3	References should be in chronological order (and alphabetical order in the years). (Peter Burt, University of Greenwich)	Technical editing to be done on final draft

#	ID	Ch	From Page	From Line	To Page	To Line	Comment	Response
610	77335	21	37	1	37	17	Patterns analysis has evolved as a new approach to analyse vulnerability quantitatively. It reveals similarities in the vulnerability of socio-ecological systems as shown for the example of drylands and smallholder systems (Sietz et al. 2011, Sietz et al. 2012). The resulting typologies differentiate vulnerability causes and serve to develop adaptation strategies following the hypothesis that such strategies are transferable among similar dryland systems. An example is given in Sietz et al. (2011) that confirms this hypothesis. The zai technique, a land rehabilitation approach applied in Burkina Faso, was transferred to several villages in Southwest Niger which belong to the same vulnerability pattern identified in the dryland typology. The application of zai technique ensured that the soil's quality began to recover, food supply increased and livelihoods improved. Thus, the dryland typology may be indicative for the transfer of this and other adaptation strategies. Five steps to identify typical vulnerability patterns that serve to enhance our understanding of climate vulnerability and support the transfer of adaptation strategies are presented at EGU Conference on 8 April 2013 (for details see below). The conditions necessary to identify typical vulnerability patterns were summarised in five methodological steps (Sietz 2011). They aim to motivate and to facilitate the application of the selected pattern recognition approach in future vulnerability analyses. The five steps outline the elicitation of relevant cause-effect hypotheses and the quantitative indication of mechanisms as well as an evaluation of robustness, a validation and a ranking of the identified patterns. REFERENCES: Sietz, D., Lüdeke, MKB. and Walther, C. (2011) Categorisation of typical vulnerability patterns in global drylands. <i>Global Environmental Change</i> 21(2): 431-440. ; Sietz, D., Mamani Choque, SE. and Lüdeke, MKB. (2012) Typical patterns of smallholder vulnerability to weather extremes with regard to food security in the Peruvian Altiplano. <i>Regional Environmental Change</i> 12(3): 489 - 505. ; Sietz, D. (2011) Dryland vulnerability - Typical patterns and dynamics in support of vulnerability reduction efforts. PhD Thesis, Faculty of Science, University of Potsdam, Germany, 135pp., Available at: <a href="http://opus.kobv.de/ubp/volltexte/2012/5809/pdf/sietz_diss.pdf">http://opus.kobv.de/ubp/volltexte/2012/5809/pdf/sietz_diss.pdf</a> (diana sietz, Wageningen University)	thank you for this information, the authors will consider including this depending on how extensively it has been used.
611	67236	21	37	6	36	6	'et al' should be in italics, with a full stop after the 'l' and a comma after the full stop. (Peter Burt, University of Greenwich)	Technical editing to be done on final draft
612	78520	21	37	6	37	8	Is this a conclusion or an implicit assumption of the technique? (Dáithí Stone, University of Cape Town)	This is simply the way it is - qualitative information cannot always be represented in a numerical way, much of the nuance and detail that can be crucial to making an analysis may be lost
613	67237	21	37	10	36	10	'et al' should be in italics, with a full stop after the 'l' and a comma after the full stop. (Peter Burt, University of Greenwich)	Technical editing to be done on final draft
614	67238	21	37	13	36	13	'et al' should be in italics, with a full stop after the 'l' and a comma after the full stop. (Peter Burt, University of Greenwich)	Technical editing to be done on final draft
615	67239	21	37	19	36	19	'et al' should be in italics, with a full stop after the 'l' and a comma before the date. (Peter Burt, University of Greenwich)	Technical editing to be done on final draft
616	67240	21	37	25	36	25	'ex-ante' should be in italics. (Peter Burt, University of Greenwich)	Technical editing to be done on final draft
617	67241	21	37	42	36	42	'et al' should be in italics, with a full stop after the 'l' and a comma after the full stop. (Peter Burt, University of Greenwich)	Technical editing to be done on final draft
618	67242	21	37	42	36	42	Comma missing after author surname in reference. (Peter Burt, University of Greenwich)	Technical editing to be done on final draft
619	67243	21	37	45	36	45	Comma missing after author surname in reference. (Peter Burt, University of Greenwich)	Technical editing to be done on final draft
620	67244	21	37	47	36	47	Capital 'C' required for 'chapter' (in this context it is a proper noun and is also in keeping with other usage in the document). (Peter Burt, University of Greenwich)	Technical editing to be done on final draft
621	67245	21	37	49	36	49	Comma missing after author surname in reference. (Peter Burt, University of Greenwich)	Technical editing to be done on final draft
622	67246	21	37	51	36	51	Comma missing after author surname in reference. (Peter Burt, University of Greenwich)	Technical editing to be done on final draft
623	67247	21	38	1	38	1	'et al.' should be in italics. (Peter Burt, University of Greenwich)	Technical editing to be done on final draft
624	67248	21	38	1	38	2	References should be in chronological order (and alphabetical order in the years). (Peter Burt, University of Greenwich)	Technical editing to be done on final draft
625	78521	21	38	16	38	40	This seems redundant with 21.4.4. (Dáithí Stone, University of Cape Town)	This is addressed by combining the two sections
626	83216	21	38	16	38	40	Given section 21.4.4, this material should be reduced as much as possible. (Katharine Mach, IPCC WGII TSU)	This is addressed by combining the two sections
627	84785	21	38	16	38	40	Please reduce overlap between this material and section 21.4.4. (Michael Mastrandrea, IPCC WGII TSU)	This is addressed by combining the two sections

#	ID	Ch	From Page	From Line	To Page	To Line	Comment	Response
628	67249	21	38	17	38	17	Capital 'S' required for 'section' (in this context it is a proper noun and is also in keeping with other usage in the document). (Peter Burt, University of Greenwich)	Technical editing to be done on final draft
629	67250	21	38	18	38	18	Delete 'above'. (Peter Burt, University of Greenwich)	Technical editing to be done on final draft
630	67251	21	38	26	38	26	Comma missing after author surname in reference. (Peter Burt, University of Greenwich)	Technical editing to be done on final draft
631	67252	21	38	37	38	37	Capital 'S' required for 'section' (in this context it is a proper noun and is also in keeping with other usage in the document). (Peter Burt, University of Greenwich)	Technical editing to be done on final draft
632	67253	21	38	38	38	38	'et al.' should be in italics, with a full stop after the 'l' and a comma after the full stop. (Peter Burt, University of Greenwich)	Technical editing to be done on final draft
633	67254	21	38	40	38	40	'et al.' should be in italics. (Peter Burt, University of Greenwich)	Technical editing to be done on final draft
634	83217	21	38	47	38	54	In place of the generic references to other chapters, it would be preferable to specify the relevant subsections from those chapters. (Katharine Mach, IPCC WGII TSU)	Section information added
635	74350	21	38	54	0	0	How widely used is the term cryological is? Please consider an alternate term. (UNITED STATES OF AMERICA)	Sentence has been changed.
636	67255	21	38	54	38	54	Capital 'C' required for 'chapter' (in this context it is a proper noun and is also in keeping with other usage in the document). (Peter Burt, University of Greenwich)	Will be addressed by copy-editing
637	67256	21	39	7	39	7	Capital 'S' required for 'section' (in this context it is a proper noun and is also in keeping with other usage in the document). (Peter Burt, University of Greenwich)	Will be addressed by copy-editing
638	67257	21	39	15	39	15	Capital 'S' required for 'section' (in this context it is a proper noun and is also in keeping with other usage in the document). (Peter Burt, University of Greenwich)	Will be addressed by copy-editing
639	67258	21	39	18	39	18	Why use 'in prep.' as a citation here? Most journals would not publish this, what happens if the paper is rejected? Much more robust to keep to papers already published (or which are known to be 'accepted/in press'). (Peter Burt, University of Greenwich)	Reference removed
640	67259	21	39	20	39	20	Capital 'C' required for 'chapter' (in this context it is a proper noun and is also in keeping with other usage in the document). (Peter Burt, University of Greenwich)	Will be addressed by copy-editing
641	69644	21	39	26	39	26	The scope of this section given in the title does not coincide with its content. It does not contain an assessment of uncertainty of future climate projections. For instance, we would expect an evaluation of following up studies like e.g. Hawkins and Sutton, BAMS, 2009. This section only contains a very brief summary of some scenario projects. We don't see how this sections really contributes to uncertainty assessment. (NETHERLANDS)	The title and content has been revised
642	67260	21	39	29	39	29	'et al.' should be in italics. (Peter Burt, University of Greenwich)	Will be addressed by copy-editing
643	67262	21	39	30	39	31	References should be in chronological order (and alphabetical order in the years). (Peter Burt, University of Greenwich)	Will be addressed by copy-editing
644	67261	21	39	30	39	32	'et al.' should be in italics. (Peter Burt, University of Greenwich)	Will be addressed by copy-editing
645	67263	21	39	34	39	34	'et al.' should be in italics. (Peter Burt, University of Greenwich)	Will be addressed by copy-editing
646	67264	21	39	38	39	38	'et al.' should be in italics. (Peter Burt, University of Greenwich)	Will be addressed by copy-editing
647	63751	21	39	39	39	39	In addition to Olsson et al. you may also consider the following document (based on EU-ENSEMBLES data and additional climate mode runs projections): Gørgen, K., Beersma, J., Brahmer, G., Buiteveld, H., Carambia, M., de Keizer, O., Krahe, P., Nilson, E., Lammersen, R., Perrin, C. and Volken, D. (2010) Assessment of Climate Change Impacts on Discharge in the Rhine River Basin: Results of the RheinBlick2050 Project, CHR report, I-23, 229 pp., Lelystad, ISBN 978-90-70980-35-1. Available online: <a href="http://www.chr-khr.org/files/CHR_I-23.pdf">http://www.chr-khr.org/files/CHR_I-23.pdf</a> (GERMANY)	Thank you for the suggestion,
648	67265	21	39	39	39	39	'et al.' should be in italics. (Peter Burt, University of Greenwich)	Will be addressed by copy-editing
649	67266	21	39	44	39	44	'et al.' should be in italics. (Peter Burt, University of Greenwich)	Will be addressed by copy-editing
650	67267	21	39	46	39	46	'et al.' should be in italics. (Peter Burt, University of Greenwich)	Will be addressed by copy-editing
651	67268	21	39	47	39	47	Change '6' to 'six' for consistency. (Peter Burt, University of Greenwich)	Will be addressed by copy-editing
652	67269	21	39	49	39	49	'et al.' should be in italics. (Peter Burt, University of Greenwich)	Will be addressed by copy-editing
653	67270	21	39	51	39	51	'et al.' should be in italics. (Peter Burt, University of Greenwich)	Will be addressed by copy-editing
654	83218	21	40	5	40	5	It could be helpful to explicitly indicate the type of "models" meant here--the impact models? Not the climate models that may also be involved in analyses? (Katharine Mach, IPCC WGII TSU)	Changed to read "climate and impacts models"
655	67271	21	40	10	40	10	'et al.' should be in italics. (Peter Burt, University of Greenwich)	Will be addressed by copy-editing

#	ID	Ch	From Page	From Line	To Page	To Line	Comment	Response
656	67272	21	40	22	40	22	Capital 'C' required for 'chapter' (in this context it is a proper noun and is also in keeping with other usage in the document). (Peter Burt, University of Greenwich)	Will be addressed by copy-editing
657	67273	21	40	24	40	24	'et al.' should be in italics. (Peter Burt, University of Greenwich)	Will be addressed by copy-editing
658	67274	21	40	27	40	27	'et al.' should be in italics. (Peter Burt, University of Greenwich)	Will be addressed by copy-editing
659	69645	21	40	30	40	30	This is an odd section. One needs to specify what combined uncertainties mean. If it means combining impacts with climate models, there is a large number of studies dealing with combining climate scenario modelling with impact/sectoral modelling applying different downscaling techniques. See also chapter 10 of WGI. There is a very brief summary of the existence of some studies and the section does not make clear the insight these studies delivered with respect to combined uncertainties. (NETHERLANDS)	The title and content has been revised
660	60651	21	40	32	40	36	Most of the noted sources are not contained in the references. (George Backus, Sandia National Laboratories)	Will be addressed by copy-editing
661	74351	21	41	0	0	0	It's not clear why the section on Baseline information and context is a 'regional context' issue. No specific mention of regions, or variability among regions, or problems associated with a regional context, occur. (UNITED STATES OF AMERICA)	Because the quality and availability of baseline data is variable across regions.
662	83219	21	41	2	0	0	Section 21.5.3. In further revision, this section should be shortened as much as possible, ideally by more than 50%. (Katharine Mach, IPCC WGII TSU)	Agreed, significant shortening has been implemented.
663	69646	21	41	2	41	2	The title of this section (Scenario development and application) is confusing, since it does not cover what is in this section. This section deals with baseline or reference states and not scenario development. We're very worried about the whole section and its scope. The first three subsections seem to describe something different and apply confusing terms, such as baselines. Secondly, the applied language needs to be improved considerably. The fourth subsection is titled "Development of scenarios", which is quite odd within the main section titled "Scenario development". We suggest to reorganise the whole section and to redefine its scope. See remarks below for examples. Another observation in many subsections is a plain inventarisation of studies without a description of the main findings. We also believe there is a bias in the references towards European studies. (NETHERLANDS)	Agreed, title has been changed to reflect the content of the section. Agreed re language in baselines sections which has been refined.
664	83220	21	41	4	0	0	For this introductory section, more citations should be provided for any material retained, and overlap with the text that follows should be substantially reduced. (Katharine Mach, IPCC WGII TSU)	Text overlap has been minimised.
665	69647	21	41	24	41	26	There is no reference for the statement that often 30 years worth of data is required to establish a reference state. Kendon et al. (2008) only provides one example for 30+ years of data. (NETHERLANDS)	Relevant reference added.
666	67275	21	41	26	41	26	'et al.' should be in italics. (Peter Burt, University of Greenwich)	Will be addressed by copy-editing
667	69648	21	41	42	42	42	The term climate baselines is confusing. This section deals with impacts or impact baselines. (NETHERLANDS)	No, 25.3.1.1 explicitly states this section does not deal with impacts baselines but with climate and non-climate baselines required to define impacts, vulnerability and adaptation baselines.
668	67276	21	41	47	41	47	'et al.' should be in italics. (Peter Burt, University of Greenwich)	Will be addressed by copy-editing
669	67277	21	41	50	41	50	'et al.' should be in italics. (Peter Burt, University of Greenwich)	Will be addressed by copy-editing
670	67278	21	41	52	41	52	'et al.' should be in italics. (Peter Burt, University of Greenwich)	Will be addressed by copy-editing
671	69649	21	41	52	43	2	We do not understand these two sentences. Please explain more clearly what has been done. Please define what you mean with baselines. (NETHERLANDS)	Text clarified.
672	67279	21	42	2	42	2	'et al.' should be in italics. (Peter Burt, University of Greenwich)	Will be addressed by copy-editing
673	67280	21	42	6	42	6	'et al.' should be in italics. (Peter Burt, University of Greenwich)	Will be addressed by copy-editing
674	67281	21	42	14	42	14	'et al' should be in italics, with a full stop after the 'l' and a comma after the full stop. (Peter Burt, University of Greenwich)	Will be addressed by copy-editing
675	69650	21	42	22	42	23	This sentence illustrates the confusion of the scope of this section. First the term baseline refers to a reference state of the climate (page 41, line 10). Now it is related to variability on days to decades. Then it is stated that this baseline is important for developing a reference state (which is the baseline defined earlier in the same section!). Then there is a sentence that starts with "this has motivated significant errors...". What has motivated significant errors? This development? It goes on and on in this section in the same way. A little further in this section (line 38) there is a description about REANs, which has nothing to do with scenario development. All together, we really get lost about the message of this section and we suggest a critical check on the content, the scope, and especially the way it is written. (NETHERLANDS)	Confusing text has been removed. Defining a reference climate state should include relevant measures of variability so this statement is correct (and retained). REANs are important for defining climate baselines and thus this material is relevant.
676	67282	21	42	27	42	27	Insert comma after 'APHRODITE and delte 'l'. (Peter Burt, University of Greenwich)	Will be addressed by copy-editing

#	ID	Ch	From Page	From Line	To Page	To Line	Comment	Response
677	67283	21	42	28	42	28	Insert '(' before 'Yatagai'. (Peter Burt, University of Greenwich)	Will be addressed by copy-editing
678	67284	21	42	28	42	28	'et al.' should be in italics. (Peter Burt, University of Greenwich)	Will be addressed by copy-editing
679	67285	21	42	29	42	29	'et al.' should be in italics. (Peter Burt, University of Greenwich)	Will be addressed by copy-editing
680	67286	21	42	30	42	30	'et al.' should be in italics. (Peter Burt, University of Greenwich)	Will be addressed by copy-editing
681	69891	21	42	30	42	30	This should be Allan et al. (John Caesar, Met Office Hadley Centre)	Corrected.
682	69890	21	42	31	42	34	Specifically the HadCRUT4 version of the dataset. (John Caesar, Met Office Hadley Centre)	Clarified.
683	67287	21	42	32	42	32	'et al.' should be in italics. (Peter Burt, University of Greenwich)	Will be addressed by copy-editing
684	67288	21	42	34	42	34	'et al.' should be in italics. (Peter Burt, University of Greenwich)	Will be addressed by copy-editing
685	67289	21	42	34	42	34	Text and reference style needs correcting. (Peter Burt, University of Greenwich)	Will be addressed by copy-editing
686	74352	21	42	38	43	23	Not clear why this is in the regional section, as this paragraph is about global reanalysis. (UNITED STATES OF AMERICA)	Because they are used to develop regional climate baselines and regional studies have used them and demonstrated issues with them and also as there are regional reanalyses.
687	67290	21	42	41	42	41	'et al.' should be in italics. (Peter Burt, University of Greenwich)	Will be addressed by copy-editing
688	67291	21	42	48	42	48	'et al.' should be in italics. (Peter Burt, University of Greenwich)	Will be addressed by copy-editing
689	67292	21	42	49	42	49	'et al.' should be in italics. (Peter Burt, University of Greenwich)	Will be addressed by copy-editing
690	67293	21	42	50	42	50	'et al.' should be in italics. (Peter Burt, University of Greenwich)	Will be addressed by copy-editing
691	67294	21	42	51	42	51	'et al.' should be in italics. (Peter Burt, University of Greenwich)	Will be addressed by copy-editing
692	67295	21	43	4	43	4	'et al.' should be in italics. (Peter Burt, University of Greenwich)	Will be addressed by copy-editing
693	67296	21	43	7	43	7	'et al.' should be in italics. (Peter Burt, University of Greenwich)	Will be addressed by copy-editing
694	67297	21	43	21	43	21	'et al.' should be in italics, with a full stop after the 'l' and a comma after the full stop. (Peter Burt, University of Greenwich)	Will be addressed by copy-editing
695	67298	21	43	28	43	28	'et al.' should be in italics, with a full stop after the 'l' and a comma after the full stop. (Peter Burt, University of Greenwich)	Will be addressed by copy-editing
696	67299	21	43	28	43	28	Comma missing after author surname in reference. (Peter Burt, University of Greenwich)	Will be addressed by copy-editing
697	57861	21	43	33	0	0	The following article reinforces the merit of the dynamical downscaling in reproducing the small-scale atmospheric phenomena: Ishizaki, Y., T. Nakaegawa and I. Takayabu 2012: Validation of precipitation over Japan during 1985-2004 simulated by three regional climate models and two multi-model ensemble means. Climate Dynamics, doi:10.1007/s00382-012-1304-5 (Toshiyuki Nakaegawa, Meteorological Research Institute)	The potential is not in doubt and covered by the references given.
698	67300	21	43	33	43	33	'et al.' should be in italics. (Peter Burt, University of Greenwich)	Will be addressed by copy-editing
699	67301	21	43	38	43	38	'et al.' should be in italics. (Peter Burt, University of Greenwich)	Will be addressed by copy-editing
700	67302	21	43	43	43	43	'et al.' should be in italics. (Peter Burt, University of Greenwich)	Will be addressed by copy-editing
701	67303	21	43	48	43	48	'et al.' should be in italics. (Peter Burt, University of Greenwich)	Will be addressed by copy-editing
702	67304	21	43	50	43	50	'et al.' should be in italics. (Peter Burt, University of Greenwich)	Will be addressed by copy-editing
703	67305	21	44	1	44	1	'et al.' should be in italics. (Peter Burt, University of Greenwich)	Will be addressed by copy-editing
704	67306	21	44	5	44	5	'et al.' should be in italics. (Peter Burt, University of Greenwich)	Will be addressed by copy-editing
705	67307	21	44	8	44	8	'et al.' should be in italics. (Peter Burt, University of Greenwich)	Will be addressed by copy-editing
706	67308	21	44	9	44	9	'et al.' should be in italics. (Peter Burt, University of Greenwich)	Will be addressed by copy-editing
707	74353	21	44	11	44	23	This paragraph could be shortened or removed. The information is redundant with material presented already. (UNITED STATES OF AMERICA)	Agreed and redundancy removed.
708	67309	21	44	21	44	21	'et al.' should be in italics. (Peter Burt, University of Greenwich)	Will be addressed by copy-editing
709	83221	21	44	26	0	0	Section 21.5.3.1.2. More robust referencing should be provided in all paragraphs of this section in support of statements made. (Katharine Mach, IPCC WGII TSU)	Section significantly shortened as requested with that remaining well-referenced.
710	67310	21	44	47	44	47	'et al.' should be in italics. (Peter Burt, University of Greenwich)	Will be addressed by copy-editing
711	67311	21	44	48	44	48	'et al.' should be in italics. (Peter Burt, University of Greenwich)	Will be addressed by copy-editing
712	67312	21	44	49	44	49	'et al.' should be in italics. (Peter Burt, University of Greenwich)	Will be addressed by copy-editing



#	ID	Ch	From Page	From Line	To Page	To Line	Comment	Response
713	67313	21	44	51	44	51	'via' should be in italics. (Peter Burt, University of Greenwich)	Will be addressed by copy-editing
714	67314	21	44	52	44	52	Bad English: replace 'much like' with 'as with'. (Peter Burt, University of Greenwich)	Text replaced.
715	69892	21	45	5	45	7	Useful to include a reference to the SSPs here. (John Caesar, Met Office Hadley Centre)	Text referred to removed as not relevant.
716	78522	21	45	21	45	37	Do these examples really demonstrate anything about baselines? My reading is that they say if one wants to look at something relative to today then you should use today as a reference. (Dáithí Stone, University of Cape Town)	They provide examples of defining the relevant non-climatic baseline for assessing past or future impacts trends or potential adaptation.
717	67315	21	45	24	45	24	Comma missing after author surname in reference. (Peter Burt, University of Greenwich)	Will be addressed by copy-editing
718	67316	21	45	24	45	24	Capital 'C' required for 'chapter' (in this context it is a proper noun and is also in keeping with other usage in the document). (Peter Burt, University of Greenwich)	Will be addressed by copy-editing
719	67317	21	45	25	45	25	Capital 'C' required for 'chapter' (in this context it is a proper noun and is also in keeping with other usage in the document). (Peter Burt, University of Greenwich)	Will be addressed by copy-editing
720	67318	21	45	25	45	25	Insert commas either side of 'respectively'. (Peter Burt, University of Greenwich)	Will be addressed by copy-editing
721	67319	21	45	33	45	33	'et al.' should be in italics. (Peter Burt, University of Greenwich)	Will be addressed by copy-editing
722	67320	21	45	34	45	34	'et al.' should be in italics. (Peter Burt, University of Greenwich)	Will be addressed by copy-editing
723	67321	21	45	40	45	40	Comma missing after author surname in reference. (Peter Burt, University of Greenwich)	Will be addressed by copy-editing
724	83222	21	46	3	0	0	Section 21.5.3.2.1. The material provided in this subsection could be included in box 21-1 only and not given here. (Katharine Mach, IPCC WGII TSU)	We agree - section has been eliminated
725	67322	21	46	6	46	6	'et al.' should be in italics. (Peter Burt, University of Greenwich)	copy editing will be performed at the end
726	67323	21	46	11	46	11	'et al.' should be in italics. (Peter Burt, University of Greenwich)	copy editing will be performed at the end
727	67324	21	46	28	46	28	Capital 'S' required for 'section' (in this context it is a proper noun and is also in keeping with other usage in the document). (Peter Burt, University of Greenwich)	copy editing will be performed at the end
728	67325	21	46	30	46	30	'et al.' should be in italics, with a full stop after the 'l' and a comma after the full stop. (Peter Burt, University of Greenwich)	copy editing will be performed at the end
729	67326	21	46	31	46	31	'et al.' should be in italics, with a full stop after the 'l' and a comma after the full stop. (Peter Burt, University of Greenwich)	copy editing will be performed at the end
730	67327	21	46	33	46	33	Capital 'S' required for 'section' (in this context it is a proper noun and is also in keeping with other usage in the document). (Peter Burt, University of Greenwich)	copy editing will be performed at the end
731	67328	21	46	36	46	36	'et al.' should be in italics. (Peter Burt, University of Greenwich)	copy editing will be performed at the end
732	67329	21	46	37	46	37	'et al.' should be in italics. (Peter Burt, University of Greenwich)	copy editing will be performed at the end
733	67330	21	46	40	46	40	'et al.' should be in italics. (Peter Burt, University of Greenwich)	copy editing will be performed at the end
734	67331	21	46	41	46	41	'et al.' should be in italics. (Peter Burt, University of Greenwich)	copy editing will be performed at the end
735	67332	21	46	44	46	44	'et al.' should be in italics. (Peter Burt, University of Greenwich)	copy editing will be performed at the end
736	65146	21	46	48	47	32	Climate futures Tasmania (see comment on Page 26 would also be a good example here. See <a href="http://www.dpac.tas.gov.au/divisions/climatechange/adapting/climate_futures">http://www.dpac.tas.gov.au/divisions/climatechange/adapting/climate_futures</a> . Grose MR, Corney SP, Katzfey JJ, Bennett JC, Holz GK, White CJ, Bindoff NL 2012, A regional response in mean westerly circulation and rainfall to projected climate warming over Tasmania, Australia. Climate Dynamics, DOI 10.1007/s00382-012-1405-1 Grose MR, Pook MJ, McIntosh PC, Risbey JS, Bindoff NL 2012, The simulation of cutoff lows in regional climate models: reliability and projected trends. Climate Dynamics, 39: 445-459 Bennett JC, Ling FLN, Post DA, Grose MR, Corney SP, Graham B, Holz GK, Katzfey JJ, Bindoff NL 2012, High-resolution projections of surface water availability for Tasmania, Australia. Hydrol. Earth Syst. Sci., 16:1287-1303 (Penny Whetton, Commonwealth Scientific and Industrial Research Organization - Marine and Atmospheric Research)	These are of course great papers, but the first is really not on the topic of applications of scenarios. While the second is apt, it is necessary to reduce the length of the chapter so much, that we cannot insert an additional example here
737	67333	21	46	52	46	52	'et al.' should be in italics. (Peter Burt, University of Greenwich)	copy editing will be performed at the end
738	67334	21	47	1	47	1	'et al.' should be in italics. (Peter Burt, University of Greenwich)	copy editing will be performed at the end
739	67335	21	47	3	47	3	'et al.' should be in italics. (Peter Burt, University of Greenwich)	copy editing will be performed at the end
740	67336	21	47	4	47	4	'et al.' should be in italics, with a full stop after the 'l' and a comma after the full stop. (Peter Burt, University of Greenwich)	copy editing will be performed at the end
741	67337	21	47	8	47	8	'et al.' should be in italics. (Peter Burt, University of Greenwich)	copy editing will be performed at the end

#	ID	Ch	From Page	From Line	To Page	To Line	Comment	Response
742	67338	21	47	10	47	11	Text 'property damage...Poland' does not make sense. (Peter Burt, University of Greenwich)	it does since the phrase 'effect of climate change on' applies to the entire series of factors that follow
743	67339	21	47	11	47	11	'et al.' should be in italics. (Peter Burt, University of Greenwich)	copy editing will be performed at the end
744	67340	21	47	14	47	14	'et al.' should be in italics. (Peter Burt, University of Greenwich)	copy editing will be performed at the end
745	67341	21	47	17	47	17	'et al.' should be in italics. (Peter Burt, University of Greenwich)	copy editing will be performed at the end
746	67342	21	47	21	47	22	'et al.' should be in italics. (Peter Burt, University of Greenwich)	copy editing will be performed at the end
747	67343	21	47	24	47	24	Delete comma after 'al.' and change 'et al.' to italics. (Peter Burt, University of Greenwich)	copy editing will be performed at the end
748	67344	21	47	30	47	32	'et al.' should be in italics. (Peter Burt, University of Greenwich)	copy editing will be performed at the end
749	67345	21	47	40	47	40	'et al.' should be in italics. (Peter Burt, University of Greenwich)	copy editing will be performed at the end
750	67346	21	47	44	47	44	'et al.' should be in italics. (Peter Burt, University of Greenwich)	copy editing will be performed at the end
751	69893	21	47	46	47	46	Is this the PESETA program referred to on line 4? (John Caesar, Met Office Hadley Centre)	Yes, misspelling has been corrected (PESETA)
752	67347	21	47	54	47	54	'et al.' should be in italics. (Peter Burt, University of Greenwich)	copy editing will be performed at the end
753	67348	21	48	3	48	3	Capital 'S' required for 'section' (in this context it is a proper noun and is also in keeping with other usage in the document). (Peter Burt, University of Greenwich)	copy editing will be performed at the end
754	67349	21	48	12	48	12	Reference style wrong. (Peter Burt, University of Greenwich)	copy editing will be performed at the end
755	67350	21	48	14	48	14	Reference style wrong. (Peter Burt, University of Greenwich)	copy editing will be performed at the end
756	83223	21	48	14	48	15	For this statement, cross-reference to chapter 30 could also be considered. (Katharine Mach, IPCC WGII TSU)	The Portner, Karl reference is Chapter 6 on Oceans - this has been properly labeled as Chapter 6 now
757	67351	21	48	16	48	16	Reference style wrong. (Peter Burt, University of Greenwich)	copy editing will be performed at the end
758	83224	21	48	17	48	17	Casual usage of "likely" should be avoided, as it is a reserved likelihood term. (Katharine Mach, IPCC WGII TSU)	we have deleted the term 'likely'
759	67352	21	48	19	48	19	'et al.' should be in italics. (Peter Burt, University of Greenwich)	copy editing will be performed at the end
760	67353	21	48	20	48	20	'et al.' should be in italics. (Peter Burt, University of Greenwich)	copy editing will be performed at the end
761	67354	21	48	27	48	27	'et al.' should be in italics. (Peter Burt, University of Greenwich)	copy editing will be performed at the end
762	67355	21	48	28	48	28	'et al.' should be in italics. (Peter Burt, University of Greenwich)	copy editing will be performed at the end
763	67356	21	48	31	48	31	'et al.' should be in italics. (Peter Burt, University of Greenwich)	copy editing will be performed at the end
764	67357	21	48	47	48	47	'et al' should be in italics, with a full stop after the 'l' and a comma after the full stop. (Peter Burt, University of Greenwich)	copy editing will be performed at the end
765	67358	21	48	50	48	50	'et al' should be in italics, with a full stop after the 'l' and a comma after the full stop. (Peter Burt, University of Greenwich)	copy editing will be performed at the end
766	67359	21	48	50	48	50	Date missing from second reference. (Peter Burt, University of Greenwich)	copy editing will be performed at the end
767	67360	21	48	51	48	51	Comma missing after author surname in reference. (Peter Burt, University of Greenwich)	copy editing will be performed at the end
768	67361	21	48	53	48	53	'et al' should be in italics, with a full stop after the 'l' and a comma after the full stop. (Peter Burt, University of Greenwich)	copy editing will be performed at the end
769	67362	21	49	2	49	2	'et al' should be in italics, with a full stop after the 'l' and a comma after the full stop. (Peter Burt, University of Greenwich)	copy editing will be performed at the end
770	67363	21	49	3	49	3	'et al' should be in italics, with a full stop after the 'l' and a comma after the full stop. (Peter Burt, University of Greenwich)	copy editing will be performed at the end
771	67364	21	49	8	49	8	'et al' should be in italics, with a full stop after the 'l' and a comma after the full stop. (Peter Burt, University of Greenwich)	copy editing will be performed at the end
772	67365	21	49	12	49	12	Replace 'growing' with 'increasing' in this context, to avoid confusion. (Peter Burt, University of Greenwich)	agreed - change made
773	69651	21	49	12	49	13	We suggest to cite the reference to the literature that proves the statement reported in the paragraph. (NETHERLANDS)	reference has been added to Wise et al., 2009
774	67366	21	49	16	49	16	'et al' should be in italics, with a full stop after the 'l' and a comma after the full stop. (Peter Burt, University of Greenwich)	copy editing will be performed at the end
775	83225	21	49	20	0	0	Section 21.5.3.3. This subsection should be shortened as much as possible, ideally by at least 50%. (Katharine Mach, IPCC WGII TSU)	the section has been shortened by 50%

#	ID	Ch	From Page	From Line	To Page	To Line	Comment	Response
776	63752	21	49	24	49	27	For completeness, please also mention the sources of uncertainty, that are not dealt with in this chapter (e.g. uncertainty in observations like precipitation undercatch). (GERMANY)	Given that this section must be reduced by 50% we don't have the space to include those uncertainties. Uncertainties in observations are discussed in the WG1 Report
777	61556	21	49	30	49	46	Could be useful to discuss question of limits to accessible fossil fuel reserves and whether these might or might not have implications for the emissions projections under the RCPs. (European Union DG Research, Directorate Environment Climate Change & Environmental Risks Unit)	Given the brevity of this section it is not possible to include this level of detail. This topic would be appropriate in the WG3 report.
778	69894	21	49	30	49	46	Could be interesting to include discussion on potential limits to fossil fuel availability in this section. The following references are among those which discuss this issue: Meinshausen, M., Meinshausen, N., Hare, W., Raper, S.C.B., Frieler, K., Knutti, R., Frame, D.J. & Allen, M.R. (2009) Greenhouse-gas emission targets for limiting global warming to 2°C, Nature, 458, 1158-1162, doi:10.1038/nature08017; Vernon, C., Thompson, E., and Cornell, S. (2011) Carbon dioxide emission scenarios: limitations of the fossil fuel resource, Procedia Environmental Sciences 6, 206–215. (John Caesar, Met Office Hadley Centre)	Again the brevity of this section precludes such a detailed discussion - more appropriate for WG3
779	78523	21	49	37	49	39	Also, the trajectory that will occur is dependent on the prediction, or else this AR5 is all just a hobby. (Dáithí Stone, University of Cape Town)	Not clear what th reviewer means here (?)
780	67367	21	49	43	49	43	Capital 'S' required for 'section' (in this context it is a proper noun and is also in keeping with other usage in the document). (Peter Burt, University of Greenwich)	copy editing will be performed at the end
781	67368	21	49	44	49	45	'et al' should be in italics, with a full stop after the 'l' and a comma after the full stop. (Peter Burt, University of Greenwich)	copy editing will be performed at the end
782	67369	21	49	45	49	45	Capital 'S' required for 'section' (in this context it is a proper noun and is also in keeping with other usage in the document). (Peter Burt, University of Greenwich)	copy editing will be performed at the end
783	67370	21	49	45	49	45	Delete 'below'. (Peter Burt, University of Greenwich)	deleted
784	78524	21	49	54	49	2	Parametrisations are amongst the various ways that subsystems are modelled. Differences in parametrisations are not an uncertainty, but rather a sampling of possible implementations of a climate modelling component that reflect uncertainties in our scientific understanding or resulting from limitations of our data/hardware/software/personnel resources. (Dáithí Stone, University of Cape Town)	Yes, but the uncertainty is essentially reified by the differences in the parameterizations. What is said here is consistent with the discussion of model uncertainty in WG1 Chap. 12.2.2
785	67371	21	50	8	50	8	'et al.' should be in italics. (Peter Burt, University of Greenwich)	copy editing will be performed at the end
786	78525	21	50	11	0	0	The addition of these components may have reduced errors, but whether they have reduced uncertainty is not immediately obvious to me. (Dáithí Stone, University of Cape Town)	The sentence has been removed for the sake of brevity.
787	67372	21	50	15	50	15	Capital 'S' required for 'section' (in this context it is a proper noun and is also in keeping with other usage in the document). (Peter Burt, University of Greenwich)	copy editing will be performed at the end
788	69895	21	50	18	50	21	Perhaps clarify by saying that global climate models are 'generally' still limited in terms of resolution, since there are examples of hi-res GCMs. (John Caesar, Met Office Hadley Centre)	agreed - we have clarified this
789	67373	21	50	21	50	21	'et al' should be in italics, with a full stop after the 'l' and a comma after the full stop. (Peter Burt, University of Greenwich)	copy editing will be performed at the end
790	83226	21	50	33	50	33	Casual usage of "likely" should be avoided, as it is a reserved likelihood term. (Katharine Mach, IPCC WGII TSU)	we have deleted the term 'likely'
791	78526	21	50	35	0	0	"was derived" when? (Dáithí Stone, University of Cape Town)	This sentence has been removed
792	67374	21	50	42	50	42	'et al.' should be in italics. (Peter Burt, University of Greenwich)	copy editing will be performed at the end
793	78527	21	50	45	50	46	Just because "the IPCC said so" should not lend credibility, rather the credibility should come from the evidence and agreement. (Dáithí Stone, University of Cape Town)	We disagree - the statements of the IPCC are based on the evidence and agreement
794	74354	21	50	45	51	48	Some of the text here replicates concepts provided earlier in the chapter - it could be condensed.... (UNITED STATES OF AMERICA)	the section has been reduced
795	67375	21	50	53	50	53	'et al' should be in italics, with a full stop after the 'l' and a comma after the full stop. (Peter Burt, University of Greenwich)	copy editing will be performed at the end
796	67376	21	51	3	51	3	Delete comma after 'al.' and change 'et al.' to italics. (Peter Burt, University of Greenwich)	copy editing will be performed at the end
797	69896	21	51	3	51	8	When referring to the McSweeney paper, it states no information on observed trends were available. Observational datasets were used in the study, and others are available for the region, including climate extremes indices. (John Caesar, Met Office Hadley Centre)	Reference to observed trends has been removed in refocusing the paragraph.
798	78528	21	51	10	51	29	At a global level though, in any statistical sample there has to be an outlier that is, by definition, a significant outlier. So do we see more discrepancies than expected by chance? (Dáithí Stone, University of Cape Town)	the discussion regards regional changes, not global ones

#	ID	Ch	From Page	From Line	To Page	To Line	Comment	Response
799	78530	21	51	15	0	0	Whether internal variability is a source of uncertainty depends on what you want to project. If you are trying to project the future trajectory of the climate system's state, then yes. However, if you think of climate as a statistical expectation of weather, then no. (Dáithí Stone, University of Cape Town)	We are using it in the former sense
800	67377	21	51	17	51	17	'et al' should be in italics, with a full stop after the 'l' and a comma after the full stop. (Peter Burt, University of Greenwich)	copy editing will be performed at the end
801	67378	21	51	19	51	19	'et al.' should be in italics. (Peter Burt, University of Greenwich)	copy editing will be performed at the end
802	57863	21	51	37	51	39	Three Bayesian probabilistic frameworks for projections of surface airtemperature changes over Japan region may support this section in the following article: Ishizaki, Y., T. Nakaegawa and I. Takayabu 2012: Comparison of three Bayesian approaches to project surface air temperature changes over Japan due to global warming. SOLA, Vol6, 021-024. (Toshiyuki Nakaegawa, Meteorological Research Institute)	Reference to Bayesian frameworks has been removed from this section as not directly pertinent so this additional reference is now not relevant.
803	67379	21	51	39	51	39	'et al.' should be in italics. (Peter Burt, University of Greenwich)	copy editing will be performed at the end
804	67380	21	51	41	51	41	'et al.' should be in italics. (Peter Burt, University of Greenwich)	copy editing will be performed at the end
805	78529	21	52	4	0	0	And why have volcanoes not been mentioned. Do we know exactly how volcanic and solar forcing are going to vary over the next hundred years? (Dáithí Stone, University of Cape Town)	We mention volcanoes here - of course we do not know anything about when volcanoes might erupt in the future. Our point here is to simply define what we mean by internal variability
806	67381	21	52	4	52	4	Change 'phenomenon' to 'phenomena' (Peter Burt, University of Greenwich)	copy editing will be performed at the end
807	67382	21	52	8	52	8	'et al.' should be in italics. (Peter Burt, University of Greenwich)	copy editing will be performed at the end
808	67383	21	52	11	52	11	'et al' should be in italics, with a full stop after the 'l' and a comma after the full stop. (Peter Burt, University of Greenwich)	copy editing will be performed at the end
809	60652	21	52	12	0	0	Variability that considers the increased frequency, intensity, and duration of extreme events, as climate change becomes more extensive, does reflect the potential for those conditions and the physical and economic impact they may have. (George Backus, Sandia National Laboratories)	It is not clear how this comment relates to the page and line indicated
810	67384	21	52	12	52	12	Capital 'S' required for 'section' (in this context it is a proper noun and is also in keeping with other usage in the document). (Peter Burt, University of Greenwich)	copy editing will be performed at the end
811	67385	21	52	23	52	23	'et al.' should be in italics. (Peter Burt, University of Greenwich)	copy editing will be performed at the end
812	67386	21	52	26	52	26	'et al.' should be in italics. (Peter Burt, University of Greenwich)	copy editing will be performed at the end
813	67387	21	52	30	52	30	'et al' should be in italics, with a full stop after the 'l' and a comma after the full stop. (Peter Burt, University of Greenwich)	copy editing will be performed at the end
814	67388	21	52	30	52	30	Comma missing after author surname in reference. (Peter Burt, University of Greenwich)	copy editing will be performed at the end
815	83227	21	52	32	52	43	Overlap with box 21-1 should be reduced as much as possible. (Katharine Mach, IPCC WGII TSU)	the overlap with Box 21-1 has been reduced
816	67389	21	52	34	52	34	'et al' should be in italics, with a full stop after the 'l' and a comma after the full stop. (Peter Burt, University of Greenwich)	copy editing will be performed at the end
817	67390	21	52	35	52	35	'et al' should be in italics, with a full stop after the 'l' and a comma after the full stop. (Peter Burt, University of Greenwich)	copy editing will be performed at the end
818	67391	21	52	36	52	36	'at al.' should be 'et al.' (in italics) although the reliance of this chapter for references which are not actually 'real' is becoming quite alarming. (Peter Burt, University of Greenwich)	copy editing will be performed at the end
819	67392	21	52	39	52	39	et al.' should be in italics, but again we have quasi-mythical references. (Peter Burt, University of Greenwich)	copy editing will be performed at the end
820	74355	21	52	42	52	53	The explanations of credibility, salience and legitimacy are helpful; however, their relationship to climate scenarios brings up terms that are defined here, that should have been defined earlier (RCP's, SSP's). The point is that the text looks as though it was written by different people, and not well integrated/smoothed. (UNITED STATES OF AMERICA)	These terms are defined earlier in Box 21-1
821	67393	21	52	43	52	43	'et al' should be in italics, with a full stop after the 'l' and a comma after the full stop. (Peter Burt, University of Greenwich)	copy editing will be performed at the end
822	67394	21	52	45	52	45	'et al.' should be in italics. (Peter Burt, University of Greenwich)	copy editing will be performed at the end
823	83228	21	52	45	52	53	Is this analysis supported by available literature? If not, treatment here should be reduced. (Katharine Mach, IPCC WGII TSU)	Yes, the literature is cited in the text.
824	67395	21	52	48	52	48	Comma missing after author surname in reference. (Peter Burt, University of Greenwich)	copy editing will be performed at the end

#	ID	Ch	From Page	From Line	To Page	To Line	Comment	Response
825	67396	21	52	48	52	48	et al.' should be in italics, but again we have quasi-mythical references. (Peter Burt, University of Greenwich)	copy editing will be performed at the end
826	67397	21	53	3	53	3	Comma missing after author surname in reference. (Peter Burt, University of Greenwich)	copy editing will be performed at the end
827	67398	21	53	11	53	11	'et al.' should be in italics. (Peter Burt, University of Greenwich)	copy editing will be performed at the end
828	67399	21	53	13	53	13	Comma missing after author surname in reference. (Peter Burt, University of Greenwich)	copy editing will be performed at the end
829	67400	21	53	18	53	18	'versus' should be in italics. (Peter Burt, University of Greenwich)	copy editing will be performed at the end
830	67401	21	53	24	53	24	Comma missing after author surname in reference. (Peter Burt, University of Greenwich)	copy editing will be performed at the end
831	67402	21	53	29	53	29	'et al' should be in italics, with a full stop after the 'l' and a comma after the full stop. (Peter Burt, University of Greenwich)	copy editing will be performed at the end
832	63753	21	53	40	0	0	To my understanding it is not possible to assign probabilities to scenarios (assumptions about GHG emissions/concentrations). Thus, I am confused to read about probabilistic assessments in different chapters of the report. This issue is discussed in chapter 21 on page 53 lines 40ff., but what is the consequence for this report? (GERMANY)	this section has been removed
833	67403	21	53	44	53	44	'et al.' should be in italics. (Peter Burt, University of Greenwich)	copy editing will be performed at the end
834	67404	21	53	46	53	46	'et al.' should be in italics. (Peter Burt, University of Greenwich)	copy editing will be performed at the end
835	67405	21	53	47	53	47	'et al.' should be in italics. (Peter Burt, University of Greenwich)	copy editing will be performed at the end
836	67406	21	53	51	53	52	'et al' should be in italics, with a full stop after the 'l' and a comma after the full stop. (Peter Burt, University of Greenwich)	copy editing will be performed at the end
837	67407	21	53	52	53	52	References should be in chronological order (and alphabetical order in the years). (Peter Burt, University of Greenwich)	copy editing will be performed at the end
838	67408	21	54	1	54	1	'et al' should be in italics, with a full stop after the 'l' and a comma after the full stop. (Peter Burt, University of Greenwich)	copy editing will be performed at the end
839	69652	21	54	22	54	22	The sentence repeats twice the word 'advance' and it does not read correctly. We suggest to remove the word 'advance' after the word 'knowledge'. The sentence would become "where a solid advance of knowledge would contribute to" (NETHERLANDS)	Corrected.
840	83229	21	54	29	0	0	Frequently Asked Questions. Given that the goal here is short answers, the chapter team should build from the shorter versions of responses in subsequent revisions. (Katharine Mach, IPCC WGII TSU)	FAQs have been revised
841	74356	21	54	31	0	0	FAQ 21.1 is very technical to be at the front of this chapter. If it shows up elsewhere in the report it would be best to remove from this Chapter. (UNITED STATES OF AMERICA)	FAQs have been revised
842	81268	21	54	31	0	0	FAQ 21-1 Short answer does not answer the question. The key messages from long answer will have to be consolidated in to a strong and clear answer. (Monalisa Chatterjee, IPCC WGII TSU)	FAQs have been revised
843	83230	21	54	31	54	34	The framing of "in other parts of the world" could be reconsidered as it makes it sound like the authors of this chapter have only one geographic origin. (Katharine Mach, IPCC WGII TSU)	Acknowledged, but in the context of the title we suggest the ambiguity is not present. The science writers edits (if made) will be used.
844	67409	21	54	35	54	37	Concerns' should have a small 'c'. (Peter Burt, University of Greenwich)	Will be addressed by copy-editing
845	67410	21	55	22	55	22	Capital 'C' required for 'century' (in this context it is a proper noun and is also in keeping with other usage in the document). (Peter Burt, University of Greenwich)	Will be addressed by copy-editing
846	74357	21	55	51	55	51	Complete cross reference or not? (UNITED STATES OF AMERICA)	FAQs have been revised
847	69653	21	55	51	55	52	The sentence cites 'Cross reference', as a reference. It should be replaced with the correct one. (NETHERLANDS)	FAQs have been revised
848	69897	21	56	1	0	0	FAQ 21.2: This section discusses downscaling, but does not mentioned benefits attached to higher-resolution models (global or regional) as a result of improved representation of smaller scale process such as precipitation, or storms. (John Caesar, Met Office Hadley Centre)	The point has been included in the revised FAQ
849	81269	21	56	1	0	0	FAQ 21-2 Members of wide audience may not understand 'highest resolution projection', the answer is also very technical. FAQ should be revised to make the language more accessible. (Monalisa Chatterjee, IPCC WGII TSU)	FAQ has been revised

#	ID	Ch	From Page	From Line	To Page	To Line	Comment	Response
850	61551	21	56	1	56	14	The answer to this question does not reflect the scientific findings related to added value through regional downscaling eg higher resolution. It is unclear if the higher resolution mentioned is in relation to RCMs or to higher resolved GCMs. For sure added value comes with higher resolution being able to account for orographic details. The answer to the FAQ is a bit misleading although I agree that higher resolution does not equate to more information. Furthermore there is no easy way to judge on the added value in CC signals. Here are a few examples of paper regarding added value: Déqué, M., Somot, S. (2008) Extreme precipitation and high resolution with Aladin. <i>Időjárás Quarterly Journal of the Hungarian Meteorological Service</i> , 112(3-4):179-190 Added-value of 12km RCM wrt 50km RCM for extreme precipitations over France Herrmann M., Somot S., Calmanti S., Dubois C., Sevault F. (2011) "Representation of daily wind speed spatial and temporal variability and intense wind events over the Mediterranean Sea using dynamical downscaling : impact of the regional climate model configuration", <i>Nat. Hazards Earth Syst. Sci.</i> , 11, 1983-2001, doi:10.5194/nhess-11-1983-2011 Added-value of 50km and 12km RCMs wrt reanalysis and to 125km RCM concerning the wind speed over the sea (quikscat as reference) Kostopoulou E., K. Tolika, I. Tegoulas, C. Giannakopoulos, S. Somot, C. Anagnostopoulou and P. Maheras (2009) Evaluation of a regional climate model using in-situ temperature observations over the Balkan Peninsula. <i>Tellus A</i> , 61(3): 357-370, doi: 10.1111/j.1600-0870.2009.00389.x RCM evaluation concerning cold and warm spells in Greece (not really an added-value study). Aznar R., M.G. Sotillo, M.L. Martín, S. Somot, F. Valero (2010) "Comparison of model and satellite-derived long-term precipitation databases over the Mediterranean basin: a general overview" <i>Atmospheric Research</i> , doi:10.1016/j.atmosres.2010.03.026 Added-value of 50km RCMs for precipitation over the sea wrt reanalysis (here the low quality of the observed sea precipitation reference is an issue) Elguindi N., Somot S., Déqué M., Ludwig W. (2011) "Climate change evolution of the hydrological balance of the Mediterranean, Black and Caspian Seas: impact of climate model resolution" <i>Clim. Dyn.</i> , 36 (1-2), 205-228, doi: 10.1007/s00382-009-0715-4 Added-value of 50km models wrt 125km and 250km models to represent the water budget of the Southern European Seas (demonstrated for the Med Sea) Walther, A., J.-H., Jeong, G., Nikulin, D., Chen, and C., Jones (2013), Evaluation of the warm season diurnal cycle of precipitation over Sweden simulated by the Rossby Centre regional climate model RCA3. <i>Atmos. Res.</i> , 119, 131–139. <a href="http://dx.doi.org/10.1016/j.atmosres.2011.10.012">http://dx.doi.org/10.1016/j.atmosres.2011.10.012</a> Pryor, S. C., G. Nikulin, and C. Jones (2012), Influence of spatial resolution on regional climate model derived wind climates, <i>J. Geophys. Res.</i> , 117, D03117, doi:10.1029/2011JD016822 (European Union DG Research, Directorate Environment Climate Change & Environmental Risks Unit)	Thank you, we have tried to clarify this point in the revised FAQ.
851	64729	21	56	1	56	14	You are mixing the problem of a higher resolution and the use of more than one model. Please separate. Have a look at the results of ESEMBLES and EURO-CORDEX. Ask the question: Can a higher resolution change the signal and why? Add the Question: what is the added value in the use of RCMs and the use of fine and coarse scaled RCMs (EURO-CORDEX)? (Frank Kreienkamp, Climate & Environment Consulting Potsdam GmbH)	The two issues are intertwined, and there is thus value in pointing to the importance of an ensemble in the context of high resolution methods. The FAQ has been revised.
852	83231	21	56	10	56	10	Casual usage of "unlikely" should be avoided as it is a reserved likelihood term. (Katharine Mach, IPCC WGII TSU)	This has been changed.
853	74358	21	56	17	58	26	Missing text elements (long and/or short answers). (UNITED STATES OF AMERICA)	This has been changed.
854	81270	21	56	20	0	0	FAQ 21-3 The question is confusing. Are assessment results in AR5 drastically different from previous assessments? (Monalisa Chatterjee, IPCC WGII TSU)	This has been changed.
855	83232	21	56	20	56	20	In reducing the number of frequently asked questions in the final draft, this question could be deleted. (Katharine Mach, IPCC WGII TSU)	This has been changed.
856	67411	21	56	36	56	36	Comma missing after author surname in reference. (Peter Burt, University of Greenwich)	Will be addressed by copy-editing
857	67412	21	56	38	56	38	I don't know what 'adumbrated' means. (Peter Burt, University of Greenwich)	This has been changed.
858	67413	21	56	51	56	51	Comma missing after author surname in reference. (Peter Burt, University of Greenwich)	Will be addressed by copy-editing
859	67414	21	56	51	56	51	Change 'chapter' to 'chapters'. (Peter Burt, University of Greenwich)	Will be addressed by copy-editing
860	81271	21	57	7	0	0	FAQ 21-4 The FAQ is too broad and the answer is too scientific. The authors may wish to reconsider. (Monalisa Chatterjee, IPCC WGII TSU)	FAQ has been revised
861	67415	21	57	7	57	7	Bad English: replace "for the 20-year time horizon" with "in 20 years time". (Peter Burt, University of Greenwich)	The 20 year time horizon refers to the period out to 20 years from now, and we are not speaking of a point 20 years in the future.
862	83233	21	57	7	57	7	It could be helpful to specify within the answer for the question why the 20-year time frame is particularly relevant (that is, why does the one chosen for the question). (Katharine Mach, IPCC WGII TSU)	It could be, but would add additional length to the FAQ where we believe the reason 20 year period is acceptably self evident

#	ID	Ch	From Page	From Line	To Page	To Line	Comment	Response
863	67416	21	57	14	57	15	See previous comment. (Peter Burt, University of Greenwich)	Will be addressed by copy-editing
864	61557	21	57	36	57	40	Although this section is about risk management over a 20-year timeframe it touches on trends in climate projections being small over the next 20 years relative to natural variability. It could be mentioned that it also follows that differences in climate response between emissions scenarios is also difficult to detect over this timeframe, but the emissions strategies adopted during this period will have impacts beyond the timeframe. (European Union DG Research, Directorate Environment Climate Change & Environmental Risks Unit)	We agree this is a valid point, but feel that for the need for FAQ brevity and in the context of the title we need to leave this out.
865	67417	21	57	48	57	48	Split infinitive: move 'properly' to after 'variability'. (Peter Burt, University of Greenwich)	Will be addressed by copy-editing
866	67418	21	58	3	58	3	Delete 'a'. (Peter Burt, University of Greenwich)	FAQ has been revised
867	67419	21	58	4	58	4	Mismatch of singular and plural tenses: change 'is' to 'are'. (Peter Burt, University of Greenwich)	Will be addressed by copy-editing
868	67420	21	58	4	58	4	Split infinitive: move 'confidently' to after 'trend'. (Peter Burt, University of Greenwich)	Will be addressed by copy-editing
869	67421	21	58	4	58	4	Insert comma after 'extrapolate'. (Peter Burt, University of Greenwich)	Will be addressed by copy-editing
870	67422	21	58	45	58	45	Capital 'C' required for 'century' (in this context it is a proper noun and is also in keeping with other usage in the document). (Peter Burt, University of Greenwich)	Will be addressed by copy-editing
871	67423	21	58	46	58	46	Capital 'C' required for 'century' (in this context it is a proper noun and is also in keeping with other usage in the document). (Peter Burt, University of Greenwich)	Will be addressed by copy-editing
872	67424	21	58	46	58	46	Delete hyphen after 21st (Peter Burt, University of Greenwich)	Will be addressed by copy-editing
873	63754	21	58	47	58	47	Different parts of the report use different reference periods. Here 1986-2005 is mentioned, on page 89 of this chapter it is 1961-1990, in chapter 23, page 81 it is 1971-2000. I could imagine that the change signals between these different periods are of significant magnitude as compared to the future changes signals (e.g. up to 2050). If the reference periods can not be adjusted, the uncertainty arising from choosing different reference periods should be displayed somehow. (GERMANY)	Acknowledged, however the box deals with CMIP5 data for periods compatible with the WG1 Atlas.
874	67425	21	58	48	58	48	Capital 'C' required for 'century' (in this context it is a proper noun and is also in keeping with other usage in the document). (Peter Burt, University of Greenwich)	Will be addressed by copy-editing
875	67426	21	58	48	58	48	Delete hyphen after 21st (Peter Burt, University of Greenwich)	Will be addressed by copy-editing
876	67428	21	58	50	58	50	Delete hyphen after 21st (Peter Burt, University of Greenwich)	Will be addressed by copy-editing
877	67427	21	58	50	58	51	Capital 'C' required for 'century' (in this context it is a proper noun and is also in keeping with other usage in the document). (Peter Burt, University of Greenwich)	Will be addressed by copy-editing
878	67429	21	58	51	58	51	'et al' should be in italics, with a full stop after the 'l' and a comma after the full stop. (Peter Burt, University of Greenwich)	Will be addressed by copy-editing
879	67430	21	59	3	59	4	'et al' should be in italics, with a full stop after the 'l' and a comma after the full stop. (Peter Burt, University of Greenwich)	Will be addressed by copy-editing
880	67431	21	59	7	59	7	Mismatch of singular and plural tenses: change 'are' to 'is'. (Peter Burt, University of Greenwich)	Will be addressed by copy-editing
881	67432	21	59	7	59	7	'et al' should be in italics, with a full stop after the 'l' and a comma after the full stop. (Peter Burt, University of Greenwich)	Will be addressed by copy-editing
882	67433	21	59	10	59	10	'et al' should be in italics, with a full stop after the 'l' and a comma after the full stop. (Peter Burt, University of Greenwich)	Will be addressed by copy-editing
883	67434	21	59	13	59	13	'et al' should be in italics, with a full stop after the 'l' and a comma after the full stop. (Peter Burt, University of Greenwich)	Will be addressed by copy-editing
884	74359	21	59	35	59	35	The meaning of "model-mean mean" may be unclear to some readers. Please consider explaining what the concept means or refer to the appropriate section of the glossary that does. (UNITED STATES OF AMERICA)	Reworded
885	67435	21	59	50	59	50	Capital 'C' required for 'century' (in this context it is a proper noun and is also in keeping with other usage in the document). (Peter Burt, University of Greenwich)	Will be addressed by copy-editing
886	67436	21	59	53	59	53	Capital 'C' required for 'century' (in this context it is a proper noun and is also in keeping with other usage in the document). (Peter Burt, University of Greenwich)	Will be addressed by copy-editing
887	67437	21	59	53	59	53	Delete hyphen after 20th. (Peter Burt, University of Greenwich)	Will be addressed by copy-editing
888	67438	21	59	54	59	54	Capital 'C' required for 'century' (in this context it is a proper noun and is also in keeping with other usage in the document). (Peter Burt, University of Greenwich)	Will be addressed by copy-editing
889	67439	21	59	54	59	54	Delete hyphen after 20th. (Peter Burt, University of Greenwich)	Will be addressed by copy-editing
890	67440	21	60	1	60	1	Capital 'C' required for 'century' (in this context it is a proper noun and is also in keeping with other usage in the document). (Peter Burt, University of Greenwich)	Will be addressed by copy-editing

#	ID	Ch	From Page	From Line	To Page	To Line	Comment	Response
891	67441	21	60	1	60	1	Delete hyphen after 20th. (Peter Burt, University of Greenwich)	Will be addressed by copy-editing
892	67442	21	60	18	60	18	Capital 'C' required for 'century' (in this context it is a proper noun and is also in keeping with other usage in the document). (Peter Burt, University of Greenwich)	Will be addressed by copy-editing
893	67443	21	60	18	60	18	Delete hyphen after 20th. (Peter Burt, University of Greenwich)	Will be addressed by copy-editing
894	67444	21	60	34	60	34	Capital 'C' required for 'century' (in this context it is a proper noun and is also in keeping with other usage in the document). (Peter Burt, University of Greenwich)	Will be addressed by copy-editing
895	67445	21	60	34	60	34	Delete hyphen after 20th. (Peter Burt, University of Greenwich)	Will be addressed by copy-editing
896	65477	21	61	9	79	11	Some references start with "bold font" whereas in most cases "regular font" is used. Please make it symmetrical for whole part of References which starts from page 61 and ends at page 79 (Naeem Manzoor, Global Change Impact Studies Centre (GCISC))	Will be addressed by copy-editing
897	67446	21	61	9	79	30	Why are some author names in bold? (Peter Burt, University of Greenwich)	Will be addressed by copy-editing
898	67447	21	61	47	61	47	Details missing (Peter Burt, University of Greenwich)	Will be addressed by copy-editing
899	67448	21	62	24	62	24	Details missing (Peter Burt, University of Greenwich)	Will be addressed by copy-editing
900	67449	21	65	32	65	32	Details missing (Peter Burt, University of Greenwich)	Will be addressed by copy-editing
901	67450	21	68	25	68	25	Details missing (Peter Burt, University of Greenwich)	Will be addressed by copy-editing
902	67451	21	72	35	72	38	References out of alphabetical order (in Scottish surnames 'Mac' and 'Mc' are treated the same, therefore this should appear on line 1). (Peter Burt, University of Greenwich)	Will be addressed by copy-editing
903	67452	21	77	8	77	8	Details missing. (Peter Burt, University of Greenwich)	Will be addressed by copy-editing
904	67453	21	77	48	0	48	Details missing. (Peter Burt, University of Greenwich)	Will be addressed by copy-editing
905	67454	21	78	22	78	22	Details missing. (Peter Burt, University of Greenwich)	Will be addressed by copy-editing
906	60355	21	80	0	0	0	Table 21-1: The text across the table "Integrated decision-making and governance" does not seem to be really necessary in this context. Either delete or put above table. (Andrew Ferrone, Public Research Centre - Gabriel Lippmann)	This text has been removed
907	63755	21	80	0	0	0	Table 21-1: Bilateral Finance Institutions (BFI) are missing and should be included as they finance a great part of climate finance (source CPI: <a href="http://climatepolicyinitiative.org/wp-content/uploads/2011/10/The-Landscape-of-Climate-Finance-120120.pdf">http://climatepolicyinitiative.org/wp-content/uploads/2011/10/The-Landscape-of-Climate-Finance-120120.pdf</a> - figure ES-1, page ii) - page iii: Bilateral institutions distribute a greater share of finance than multilateral agencies. While there has been a lot of attention recently on the development of a global 'green fund' to catalyze international climate finance, the reality is that most of public climate finance (USD 24 billion) is currently provided by bilateral institutions (those sponsored by one nation) rather than multilateral institutions (like World Bank / IFC, EIB, EBRD, AfDB, AsDB, IDB), which distribute USD 15 billion a year. The remainder of climate finance either flows directly through the capital markets, or is provided directly by governments. (GERMANY)	Thank you for the suggestion. Bilateral Finance Institutions (BFIs) have been added to the table.
908	78467	21	80	0	0	0	Table 21-1, Trans-national, Technology: What is meant by "Union" (Dáithí Stone, University of Cape Town)	Table formatting problem - now rectified
909	60356	21	83	0	0	0	Table 21-3: Please specify in caption that this is an example, not a general statement (Andrew Ferrone, Public Research Centre - Gabriel Lippmann)	We added the word "illustrative" in the caption.
910	80125	21	83	1	0	0	Please avoid the use of the imprecise term "stimuli" - what are we talking about specifically? (Jochen Harnisch, KfW)	Revised to read "climate variability"
911	69654	21	84	0	0	0	Table 21-4, last column on the right, states 'target audience', but perhaps the label 'target field' would be more appropriate, given the issues which are mentioned in this column. (NETHERLANDS)	"Audience" has been replaced by "Field"
912	60357	21	86	0	0	0	Table 21-5: In the caption add "... a temperature observation at a given location is generally more representative ..." (Andrew Ferrone, Public Research Centre - Gabriel Lippmann)	Relevant text now in the main text but "generally" has been inserted in an appropriate place there as suggested
913	60358	21	86	0	0	0	Table 21-5: The difference between MH + H are not very clear. Please be more specific what the abbreviations represent (Andrew Ferrone, Public Research Centre - Gabriel Lippmann)	M is defined as Medium and H as High (in the definition of VH as Very High) so this is clear.
914	60359	21	86	0	0	0	Table 21-5: In the second line of the table (Global, Future change) are the fact that the stations are not available over the oceans are taken into account in the assessment of reliability? (Andrew Ferrone, Public Research Centre - Gabriel Lippmann)	Specific reference to "stations" is not present in the revised text (which has been removed from the caption and is now in Section 21.3) and ocean temperature is well observed in situ and also now from satellites.



#	ID	Ch	From Page	From Line	To Page	To Line	Comment	Response
915	78468	21	86	0	0	0	Table 21-5, caption: Can you use a different word than “reliability” here? Reliability has a very specific meaning in meteorology and given that you are discussing meteorology that definition is implied. But clearly you are not talking about reliability or else everything that is being stated here does not make sense. (Dáithí Stone, University of Cape Town)	Comment not relevant as we are not discussing weather-forecasting/meteorology but regional climate information.
916	78469	21	86	0	0	0	Table 21-5, caption: Is this table concerning “information on temperature and precipitation” as stated, or information on (anomalous) variability in temperature and precipitation? If it is about the former, then your assessments for temperature are wrong, as the temperature during a year or day at any particular location may be very different from a neighbouring location. Thermometers have a habit of being in the shade in grassy fields in the middle of valleys, and so their measurements may have little to do with the temperature in the open sun, in nearby forests, or on the hilltops. (Dáithí Stone, University of Cape Town)	It concerns information relevant to applications of this information and thus the latter.
917	78470	21	86	0	0	0	Table 21-5, Village/site/field, Temp: VH-H only works if you are considering information on anomalous *variability*. (Dáithí Stone, University of Cape Town)	Agreed, see previous response.
918	83234	21	86	0	0	0	Table 21-5. In place of "reliability," could the author team assign levels of confidence within this table? (Katharine Mach, IPCC WGII TSU)	Without specifying details of time-scales or emissions scenarios it is not appropriate to use formal IPCC confidence scales.
919	84786	21	86	0	0	0	Table 21-5: It appears that the IPCC confidence scale would be an alternative to the categories of reliability used in this table and could be appropriate to use in this context with the discussion contained in the caption describing its specific application here. (Michael Mastrandrea, IPCC WGII TSU)	Without specifying details of time-scales or emissions scenarios it is not appropriate to use formal IPCC confidence scales.
920	57700	21	86	0	86	0	Table 21-5 is very useful, but some of the reliability ratings might be too optimistic. In particular, do projections on the *amount* of temperature change really have high (H) reliability down to national and seasonal scales? Considering the intermodel variation for the subcontinental regions as documented in WG1 Table 14.7, MH would seem more appropriate for the amount of temperature change on all sub-global scales. Naturally, this also depends on where you put your reliability thresholds and whether you count in the emissions uncertainty or only consider the projection for known emissions. Perhaps these issues should also be discussed. (Jouni Räisänen, University of Helsinki)	Agreed re the first point and table changed. Re the second point, this table is more to provide context on the broad measure of reliability that can be assigned to past or future climate information and (now mainly in the text) noting that there are wide regional variations in this with a summary of the reasons for this. It is to provide context relevant to regional climate information.
921	78471	21	87	0	0	0	Table 21-3, row 3, Knowledge gap: The “intensity, ..., and frequency” of what? (Dáithí Stone, University of Cape Town)	added "of weather events"
922	78472	21	87	0	0	0	Table 21-3, row 2, Research need: These two sentences, especially the first, need to be written more clearly. (Dáithí Stone, University of Cape Town)	Revised
923	78473	21	87	0	0	0	Table 21-3, row 3, Research need: What is the verb for the second half of the last sentence? (Dáithí Stone, University of Cape Town)	Verb added
924	83235	21	87	0	0	0	Table 21-7. As a few small points, it would be preferable to clarify more precisely the challenges to understanding how to integrate data products, at the start of the 1st example. Within the 2nd example, casual usage of "likely" should be avoided. (Katharine Mach, IPCC WGII TSU)	Added ", due to the Changed "is likely" to "would be expected to be"
925	60360	21	88	0	0	0	Figure 21-1: The national boundaries on Africa seem not to be visible (Andrew Ferrone, Public Research Centre - Gabriel Lippmann)	National boundaries will be removed
926	68128	21	88	0	0	0	Figure 21-1 contains a world map with national borders. It is suggested to use a map without borders to avoid unnecessary disputes. (CHINA)	National boundaries will be removed
927	74360	21	88	0	0	0	Figure 21.1 adds nothing that is not already stated in the text. We recommend that it be deleted. (UNITED STATES OF AMERICA)	We believe that a small map introducing the regions to be treated in the subsequent chapters would be a very useful and rapid reference point for readers. However, the figure has been simplified to remove national boundaries, and the sub-continental regions are now included in another figure.
928	78478	21	88	0	0	0	Figure 21-1: I struggled to find any other figures in this chapter that used the regions labeled here, especially for South America. (Dáithí Stone, University of Cape Town)	Sub-continental regions have been removed
929	81441	21	88	0	0	0	Figure 21-2: It is not clear if the visual presentation of this information has an added value to the section, or could be effectively said in words in the text. (Yuka Estrada, IPCC WGII TSU)	This figure has been omitted

#	ID	Ch	From Page	From Line	To Page	To Line	Comment	Response
930	83236	21	88	0	0	0	Figure 21-1. The chapter team could consider a variety of aspects of presentation in revising this figure. 1st, the open oceans chapter does not consider the Arctic and Southern Ocean, which should be clarified. Additionally, is there a cleaner way of indicating the open oceans, as compared to the repeated labeling? 2nd, instead of the hashing over the polar regions, could a dotted line across the map at the appropriate latitude be used instead? 3rd, the chapter team should consider providing a "halo effect" around islands, rather than the yellow boxes used. The effect could be labeled clearly in just one location. Finally, it would seem most preferable to use polygons that match the regions characterized in the working group I Atlas. (Katharine Mach, IPCC WGII TSU)	We believe that a small map introducing the regions to be treated in the subsequent chapters would be a very useful and rapid reference point for readers. However, the figure has been simplified to remove national boundaries, and the sub-continental regions are now included in another figure.
931	85223	21	88	1	88	20	Fig 21.1 shows the inadequacy of the current gross divisions into regions. There is increasing realisation that climate variability occurs over quite small areas within supposedly uniform states. The extreme error here is to place both the North and the South Pole into a single region. Since the North Pole is an ocean its climate is dominated by ocean currents, very different from Antarctica. In the end you have to concern yourself with microclimates (Vincent Gray, Climate Consultant)	The reviewer is correct in pointing out differences in the climate system operating in the Arctic and Antarctic. However, the Polar Regions chapter in this volume does not focus on climate variability, but rather on impacts, adaptation and vulnerability of climate change. There are differences between and within the two regions in these aspects as well, of course, which are well described in the chapter, but the key attributes shared by both regions and no others are extreme seasonal contrasts and the dominance of the cryosphere and cryosphere processes.
932	61552	21	88	1	108	0	A figure related to Europe is missing (European Union DG Research, Directorate Environment Climate Change & Environmental Risks Unit)	This figure is being redrafted
933	68129	21	89	0	0	0	Figure 21-3 contains a world map with national borders. It is suggested to use a map without borders to avoid unnecessary disputes. (CHINA)	Boundaries will be removed
934	78474	21	90	0	0	0	Figure 21-4: Do you need to show SRES A1B plots when RCP X plots appear elsewhere? (Dáithí Stone, University of Cape Town)	The use of SRES is relevant in that this is the dominant scenario set used by the literature assessed in WG2 AR5, plus the figure reflects the combination of QUMP and CMIP3. The caption will be revised to reflect this distinction.
935	81442	21	90	0	0	0	Figure 21-4: Inlaid plot scales are essentially impossible to read/interpret. Some more detailed explanation in the figure caption of what is being communicated is required. (Yuka Estrada, IPCC WGII TSU)	Final quality figure to be developed, and the caption is being revised.
936	60361	21	91	0	0	0	Figure 21-5: In the legend the significance should either be at the 95% level or write $p=0,05$ . (Andrew Ferrone, Public Research Centre - Gabriel Lippmann)	Thanks, the caption is being revised.
937	83237	21	91	0	0	0	Figure 21-5. Where black dots are used, it is somewhat hard to see the color underneath. Could more discreet dotting be used instead? (Katharine Mach, IPCC WGII TSU)	Thanks, we will take this into account in the preparation of the final print quality figure.
938	60362	21	92	0	0	0	Figure 21-6: In the upper right figure the national and state borders are missing (Andrew Ferrone, Public Research Centre - Gabriel Lippmann)	The figure has been dropped.
939	60363	21	93	0	0	0	Figure 21-7: Specific which emissions have been used (even if they are kept constant) (Andrew Ferrone, Public Research Centre - Gabriel Lippmann)	Thanks, the caption will be altered.
940	60364	21	93	0	0	0	Figure 21-8: Specific which emissions have been used (even if they are kept constant) (Andrew Ferrone, Public Research Centre - Gabriel Lippmann)	The caption notes the A2 scenario
941	68130	21	95	0	0	0	Figure 21-10 contains a world map with national borders. It is suggested to use a map without borders to avoid unnecessary disputes. (CHINA)	This Figure will be re-drawn
942	78475	21	95	0	0	0	Figure 21-10: Where is Panel a)? (Dáithí Stone, University of Cape Town)	Panel a) is the central map (error in formatting the Figure), which is to be re-drawn
943	65147	21	97	0	0	0	Figure 21-12 caption. I think it would be good if this included some more plain language explanation of what we are seeing here - what is there is difficult to follow by itself. (Penny Whetton, Commonwealth Scientific and Industrial Research Organization - Marine and Atmospheric Research)	The figure has been dropped.
944	68131	21	97	0	0	0	Figure 21-12 contains a world map with national borders. It is suggested to use a map without borders to avoid unnecessary disputes. (CHINA)	The figure has been dropped.
945	74361	21	97	0	0	0	Figure 21.12 is not well linked to the text and probably could be removed without losing the meaning of the section. (UNITED STATES OF AMERICA)	The figure has been dropped.

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946	78476	21	99	0	0	0	Figure 21-14, caption: "The dark-grey dashed line" -- would that be the solid line? (Dáithí Stone, University of Cape Town)	The final figure/caption will be adjusted.
947	78477	21	100	0	0	0	Figure 21-15, caption: Are these "errors" or biases against GPCC, which itself must include some errors. (Dáithí Stone, University of Cape Town)	The figure has been dropped.
948	83238	21	101	0	0	0	Box 21-2 figure. It would be preferable to adjust the Y axes of the plots so that the plumes fit within the rectangles used. Additionally, is the relevant timeframe 1986-2005, rather than 1986-2006? (Katharine Mach, IPCC WGII TSU)	We will assess the impact on the other panels of shrinking the range of the plot that goes outside the box, and make a call at that point. The date range will be corrected.
949	64735	21	102	0	0	0	Box 21-3 fig 1: There is a inconsistency between the colour scale and the caption. In the caption you are writing that all areas with a change smaller then 2 times the standard deviation will be left white. But your colour scale is providing colours starting with 0. Is 2 times the standard deviation close to 0? (Frank Kreienkamp, Climate & Environment Consulting Potsdam GmbH)	Will be corrected in the final draft.
950	64737	21	102	0	0	0	In box 21-3 fig 1 you are using 20 year periods, In box 21-3 fig 2 you are using 30 year periods. Please unify the usage to 30 year periods! (Frank Kreienkamp, Climate & Environment Consulting Potsdam GmbH)	Fig 1 is 20 years to be consistent with the comparabe ionformation in WG1, while the scatter plots use 30 years to be compatible with the SREX data. Further explanation is included in the text.
951	60365	21	104	0	0	0	Box 21-3 Figure 2: Provide the reader with some information which SRES and RCP scenarios are comparable. This allows to appreciate differences in scenarios and models. (Andrew Ferrone, Public Research Centre - Gabriel Lippmann)	Caption will be revised
952	83239	21	105	0	0	0	Box 21-3 figure 3. For the top map, it would be helpful to clarify what is being plotted--the percent of hottest 10% of days above the 1961-90 threshold?? (Katharine Mach, IPCC WGII TSU)	Thanks, the explanation will be revised
953	60366	21	106	0	0	0	Box 21-3 Figure 4: The caption in the upper figure should read "very wet days" to be inline with the caption of the complete figure (Andrew Ferrone, Public Research Centre - Gabriel Lippmann)	Thanks, will be corrected
954	60367	21	106	0	0	0	Box 21-3 Figure 4: Indicate the boxes (NAS, WAS etc.) in the upper figure, as done in Figure 3 (Andrew Ferrone, Public Research Centre - Gabriel Lippmann)	Will be added in figure redrafting
955	68132	21	106	0	0	0	Box 21-3 Figure 4 contains a world map with national borders. It is suggested to use a map without borders to avoid unnecessary disputes. (CHINA)	Boundaries will be removed