

Review comments on the IPCC AR5 Synthesis Report First Order Draft - Introduction

Chapter	From Page	From Line	To Page	To Line	Comment	Response
Introduction	0				<p>This section may be the only document that certain audience reads about climate change. Due to its controversies, IPCC and others have to keep on defending its works, and increase credibility of statements. Therefore, some information in the introduction would be useful that presents</p> <ul style="list-style-type: none"> - how IPCC works, what it does (i.e., literature review plus a stringent process of reviewing its reports), - that IPCC contributes to the organization of climate modelling, - that it assesses uncertainties and gaps in our report, and - that it presents "best available knowledge" on the issues considered. <p>Some of this methodology is unique, but is certainly based on the scientific method, and should be described in order to increase the credibility.</p> <p>This description should not be long, and could take the place of some redundancy in the report. I believe that this section is necessary even if the issues are described in more details e.g. on the IPCC website.</p> <p>Finally, a link should be made with Art. 2 of the UNFCCC (see very last Box on pages 118-120), the Kyoto Protocol (which was designed based on IPCC reports), but ALSO WITH METHODOLOGICAL REPORTS OF IPCC TO ESTIMATE GHG EMISSIONS AND REMOVALS (i.e., THE TASK FORCE OF IPCC ON GHG INVENTORIES). This would then describe the overall framework of how climate change is currently addressed at the global level. Developing even a nice chart showing all these elements of our climate change management could set the stage for the findings of AR5. [Government of Hungary]</p>	<p>Art.2 box reference accepted.</p> <p>Other suggestions rejected due to space limitations (and it is indeed available on the IPCC website).</p>
Introduction	29	1	29	35	<p>Please mention the concepts of climate resilience and sustainable development, and add a statement on co-benefits and synergies of actions when talking about uncertainties and risks in the para starting at L. 23. [Government of Germany]</p>	<p>All paragraphs on risks and uncertainty have been moved to the box in the introduction section.</p>
Introduction	29	2	29	7	<p>Lack of consistency with approved texts as appeared in adopted SPMs (WGI, WGII, WGIII) • Introduction of SYR [P29 L2-7] SYR should be based on adopted 3 SPMs (WGI, WGII, WGIII) and should use approved texts as much as possible in order to assure successful outcome of AR5. This will avoid not re-negotiating texts in SYR. [Government of Saudi Arabia]</p>	<p>Accepted where appropriate</p>
Introduction	29	3	29	35	<p>General comments on the underlying report:</p> <p>The 'Introduction' is well described the aim and scope of the underlying report, although it would be better to introduce differences on between AR4 and AR5 in this part. Topics are overall well-structured with themes importantly treated through AR5.</p> <p>However there are some suggestions to improve the underlying reports as described on specific comments to relevant topics. Also we would like to suggest having alike of a conclusion or summary at the end of Topics, although it would be nice if it is applied for SPM, too. [Government of Republic of Korea]</p>	<p>Noted</p>

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Introduction	29	3			"Anthropogenic emissions of greenhouse gases have continued to rise since .." Since the regional/national differences in this regard are a rather sensitive issue, it would be better to add "global", i.e.: Anthropogenic emissions of greenhouse gases at global level have continued to rise since .. [Government of Hungary]	out of place
Introduction	29	6			Full stop should be semicolon, the sentences belong together. Otherwise it's unclear what source the special reports serve as. [Government of Germany]	accepted
Introduction	29	7			delete ')' from '...Events) and...'[Stewart Cohen, Canada]	accepted
Introduction	29	8	29	8	understanding of climate change [Peter Thorne, Norway]	sentence deleted
Introduction	29	8		9	The term "understanding" is not clear, does it refer to causes, processes, detection and attribution? Please specify or delete. [Government of Germany]	sentence deleted
Introduction	29	9			Suggest "cope with" is changed to "address". Rationale: while "cope with" might be appropriate when talking about adaptation, it doesn't seem to be the right wording for mitigation. [Government of New Zealand]	sentence deleted
Introduction	29	10			Not "long term objective", but "ultimate objective", there is no notion of time. Please cite correctly. [Government of Germany]	sentence adjusted
Introduction	29	13	29	13	Human influence with the climate system is occurring' - makes for an awkward reading. Suggestion: "Human-influenced changes are affecting the climate system". [Venkatachalam Ramaswamy, United States of America]	paragraph deleted
Introduction	29	13	29	13	Consider inserting "this amplification of" before "climate change." [Carl Southwell, United States of America]	paragraph deleted
Introduction	29	13	29	13	Consider inserting "additional" before "risks." [Carl Southwell, United States of America]	paragraph deleted
Introduction	29	13	29	15	Please straighten text and remove repetitions. Currently, the first sentence states "climate change poses risks for human and natural systems" and the third sentence "climate change will alter human and natural systems". [Government of Germany]	paragraph deleted
Introduction	29	13	29	32	The content here has a character of summarising some of the results, rather than providing an introduction to the Topics. It would be useful to do the latter, for example by following the convention in the WG-reports. [Government of Sweden]	accepted
Introduction	29	13		15	"and climate change poses risks for human and natural systems", "Climate change will alter human and natural systems," These two are overlapping and to some extent contradictory. It would be better to modify the 2nd one by deleting its first part, i.e.: Responding to climate change involves issues .. [Government of Hungary]	paragraph deleted
Introduction	29	14	29	14	"all aspects", which is not accurate, is suggested to be reworded as "most aspects". [Government of China]	paragraph deleted
Introduction	29	14	29	15	Similar concern I raised in 1). By saying the "report assesses all aspects...", the authors created an unrealistic impression that information on "all aspects" of climate change required for decision making is contained in the SYR. Consider revising the text. [Government of South Africa]	paragraph deleted
Introduction	29	14	29	15	The sentence starting ' This report... ' may be better placed at the end of the previous paragraph, instead of in the second paragraph on this page. [Government of United Kingdom of Great Britain & Northern Ireland]	paragraph deleted
Introduction	29	14			Please replace "all aspects" by "the aspects", because no one can be sure to capture all aspects of climate change. [Government of Germany]	paragraph deleted
Introduction	29	15	29	15	Consider changing "Climate change will alter" to "Climate change is altering." [Carl Southwell, United States of America]	paragraph deleted

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Introduction	29	16	29	16	Consider changing "issues of equity, justice, and fairness, requiring" to "issues of urgency--equity, justice, and fairness--requiring." [Carl Southwell, United States of America]	paragraph deleted
Introduction	29	23	29	23	Consider inserting "risks and" after "many." [Carl Southwell, United States of America]	sentence has been deleted
Introduction	29	23	29	23	• Both SPM of SYR [P5 L16-19] and SYR [P29 L 23] Box Introduction 1 [P29] state general comments on 'uncertainties' [Government of Saudi Arabia]	All paragraphs on risks and uncertainty have been moved to the box in the introduction section.
Introduction	29	25	29	25	If comment 20 is accepted, change "climate change and" to "climate change,." [Carl Southwell, United States of America]	sentence has been deleted
Introduction	29	26	29	26	Consider changing "objectives." to "objectives and for understanding and managing the uncertainties." [Carl Southwell, United States of America]	sentence has been deleted
Introduction	29	30	29	30	Consider inserting "and sequestration" after "emission". [Carl Southwell, United States of America]	sentence has been deleted
Introduction	29	30			Suggest replacing "diverge across emission scenarios" with "depending on future emission of GHG [Government of Sweden]	sentence has been deleted
Introduction	29	35			"notions" seems like a rather frivolous word in this context. Suggest rewording to avoid such as " Treatment of uncertainties and risks is important is all topics of this report and the use of these terms is explained in Box Introduction 1. [Government of New Zealand]	sentence has been adjusted (notions removed)
Introduction	29	37	29	56	Differentiate between uncertainty and risk. Uncertainty is the inability to confidently calculate probabilities of occurrence. Risk can associate probabilities. [Government of United States of America]	Accepted, divided into two boxes
Introduction	29	37	30	48	Box 1. Uncertainty and risk are two different and separate issues, so I suggest to use two separate boxes. Uncertainty should come first, and the text should be condiserably shortened to skip unspecific, general text. On the other hand, what is now the last para should be highlighted much more as the system of terms related to uncerainty, which are often used and highlight the level of our current understanding, is extremely important for the user to find easily. Risks and how to manage them are among those many topics that are not actually discussed in an introduction. [Government of Hungary]	Accepted, divided into two boxes
Introduction	29	37	30	48	Box 1. Uncertainty and risk are two different and separate issues, so I suggest to use two separate boxes. Uncertainty should come first, and the text should be condiserably shortened to skip unspecific, general text. On the other hand, what is now the last para should be highlighted much more as the system of terms related to uncerainty, which are often used and highlight the level of our current understanding, is extremely important for the user to find easily. Risks and how to manage them are among those many topics that are not actually discussed in an introduction. [Government of Hungary]	Accepted, divided into two boxes
Introduction	29	37	30	48	I found this box long winded and very hard to follow. I have made two specific suggestions but, in general, shortening and clarifying this text would help tremendously. [Peter Thorne, Norway]	noted

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Introduction	29	37	30	48	<p>The information on uncertainty and the methods of assessment making including information on expert judgement provided in Box Introduction.1 is generally highly appreciated but the box needs some structural improvements and additional content:</p> <ul style="list-style-type: none"> - The text mixes the definitions of uncertainty statements (that are clearly defined in the IPCC guidance note) with statements on the different risks associated with climate change, risk assessment and decision making under uncertainty in a confusing manner. In addition, the statements on the fact that uncertainty is not always due to a lack of knowledge but is inherent to the climate system is not clear enough. Please improve. - The statements on risk should be consistent with both WG2 and WG3, and not add yet more slightly different definitions (risk=expected value of harm? product of likelihood and consequence? for whom: only for humans (WG2) or anything (WG3)?). The examples should be removed, they do not add clarity but confusing numbers (e.g. the statement on sea level rise, see above, and the reference year is missing). In addition, the terms "consequence" and "impacts" should be clarified and be used in a transparent manner. - The title of the box should clarify that it contains definitions of language and concepts. - A discussion on expert judgements should be added, see also comments on Sections 2.2.2. and 2.3. The WG2 SPM gives a robust explanation that can be used here. - A reference to this box should be included in the SYR SPM to the first uncertainty statement in the text. [Government of Germany] 	Box is now divided into two boxes for clarity. Consistency has been checked. Examples have been improved. Expert judgement has been included.
Introduction	29	37	30	48	<p>The uncertainty text is useful. Non-experts/policy makers often discount/ignore findings with low confidence attached, because they misunderstand the meaning of a low confidence finding. It could be beneficial to explicitly state that low confidence still means a finding/trend is observed and can, in context, be used/relied on. Otherwise large sections of the report risk being discounted by policy makers/non-experts whom conflate low confidence with no confidence or no discernible trend. [Government of United Kingdom of Great Britain & Northern Ireland]</p>	low confidence together with high consequences has been emphasized
Introduction	29	37	30	48	<p>The text in the box is too long. It would make the text easier to follow and understand by separating risk and uncertainty in two boxes. [Government of Switzerland]</p>	accepted
Introduction	29	40	29	41	<p>Does this definition of uncertainty refers to IPCC one? [JACQUES ANDRE NDIONE, SENEGAL]</p>	sentence has been deleted
Introduction	29	41	29	41	<p>Suggest concluding this paragraph with a statement about conditions that reduce uncertainty or increase confidence (rather than only focusing on conditions that increase uncertainty). [Government of Canada]</p>	sentence has been deleted
Introduction	29	43	29	46	<p>We don't think limited ability to model impacts of climate change causes uncertainty in estimates of past and future climate change itself, at least not to first order. Suggest deleting 'and the impact of climate change on a wide range of natural and human-managed systems'. Note also that writing in the first person (i.e., "our limited knowledge") should be avoided. [Government of Canada]</p>	sentence has been deleted
Introduction	29	44			<p>Please substitute "atmospheric and ocean temperatures" with "atmospheric and ocean parameters". [Government of Germany]</p>	sentence has been deleted
Introduction	29	50	29	50	<p>Consider changing "is caused by" to "is caused in part by". [Carl Southwell, United States of America]</p>	sentence has been deleted
Introduction	29	51	29	55	<p>"Market factors and perceptions of the relevant costs and expected benefits" should be added as uncertainties in the paragraph. Refer to WGIII:2.3.1 bullet points on pages 9 and 10 [Government of Zambia]</p>	We don't use specific examples anymore in the new version

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Introduction	29		30		Box Introduction.1: It is suggested to add from the Guidance Note on Uncertainty the figure with the relationship between the evidence and agreement and the table with the likelihood scale [Government of Spain]	Rejected due to space limitations
Introduction	29		30		This entire Box should be moved to the front of the report to ensure readers have context prior to reviewing data. [Harold David Tattershall, United States of America]	It is in front of the longer report. The SPM refers to these (now two) boxes
Introduction	30	1	30	6	text on definition of risk also appears in WGII 2.1 and 2.3, including treatment of uncertainties within the context of decision making. [Stewart Cohen, Canada]	Only first sentence is still in
Introduction	30	1	30	8	Box 1 Introduction: Risk and Uncertainty. We recommend revising the first paragraph about risk in this Box to address a shortcoming, namely that the definition of risk does not capture all the elements of risk as described in the WGII SPM (Background Box SPM.2). Omitted is the information that risk results from the interaction of vulnerability, exposure and hazard. Our recommendation is to make this description of risk more consistent with the definition of risk in WGII SPM Background Box SPM.2, and to consider including Fig SPM.1 from the WGII SPM, which presents a useful conceptual framework for climate risk assessment. Suggest avoiding sentences that include a long list of potential adverse effects. The WGII definition of risk did avoid this. [Government of Canada]	Now included (2nd paragraph, Box 1)
Introduction	30	2	30	3	Change suggested: "For example, policies which induce conversion of land from cultivation of crops for food to crops for energy production bear risks for ecosystems, food production, livelihoods and human wellbeing" [Pedro Alfredo Borges Landáez, Venezuela]	sentence has been deleted
Introduction	30	3	30	3	Is use of land for energy crops really more risky for ecosystems than food crops? Conversion of land from food crops to energy crops increases the risks to food security. [European Union]	sentence has been deleted
Introduction	30	3			Suggest adding "and food supply" after "ecosystems" [Government of Sweden]	sentence has been deleted
Introduction	30	5	30	6	Replace an ambiguous word "may" in a sentence to: "The risk from an event quantitatively measured as the "expected value" of resulting harm is defined ... [Government of Netherlands]	sentence has been deleted
Introduction	30	8	30	19	Box 1 Introduction: Risk and Uncertainty. The second paragraph in this Box about risk (describing the quantification of harm) is poorly explained and confusing. It fails to integrate harm across other levels of SLR, treating the SLR of 0.5m as a discrete event. In statistics the 'expected value' of harm would be derived by integrating the probability and the resulting harm over the full range of outcomes. Therefore, the expected value of harm would also have to include higher sea level rises - these might have larger harm but lower probability- and lower sea level rises, summing the resulting products of harm and probability. In any case, given that the approach outlined here to quantify harm does not seem to be used anywhere in the SYR, our preference would be to delete this paragraph. [Government of Canada]	paragraph has been deleted
Introduction	30	8	30	19	Hurricane activity may be a poor example as not all aspects are projected to increase, only the frequency of Cat 4 and 5 storms; the overall number of storms may in fact decrease. Also "activity" is vague, but presumably different from intensity. Moreover changes in tracks can also pose risk even with no change in activity or intensity. [Government of United States of America]	sentence has been deleted

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Introduction	30	10	30	14	This example is non-sensical because the two numbers are not conditional in the naïve way given. If the 0.5 rise is exceeded then all 72 million people will be displaced and if it doesn't then some other (smaller) number would be. You cannot conflate these two numbers in this way. A 17% chance does not imply 12 million people will be displaced. And an 83% chance does not imply 60 million will be displaced. A 17% chance means there is a 17% chance that 72 million will be displaced. If the numbers instead are two continuums then you can combine in this way but combining a static point number with a non-static probability of exceedance and using it to infer a precise number displaced is so obviously ill-posed. Surey a better example can be given here that is less obviously wrong. [Peter Thorne, Norway]	paragraph has been deleted
Introduction	30	12	30	12	Suggest to replace 'assuming' with 'for' to remove the impression that IPCC thinks sea level rise will be 0.5 m in 2100. [European Union]	paragraph has been deleted
Introduction	30	12	30	13	Does 'any RCP' mean 'all four RCPs', or does it refer to other scenarios as well? [European Union]	paragraph has been deleted
Introduction	30	13	30	13	How was the probability of 17-85% calculated?. This range is not quoted in the SPM of WGI. [European Union]	paragraph has been deleted
Introduction	30	13	30	13	Is this the same likely as ">66%"? If yes, recommend using this way of expressing as more familiar for many, or omit the quantification of "likely" here, also for brevity. Cf. also last paragraph in this box. [Government of Sweden]	paragraph has been deleted
Introduction	30	13	30	14	can't understand how to get the value of "12M and 60M people.....". [Hui JU, China]	paragraph has been deleted
Introduction	30	13	30	44	In L 13 "likely" is defined with "17-83% probability" and again in L 44 "likely" is "66-100%". This is misleading as the second definition is correct and the use of the word "probability" in the first expression should be replaced by the word "percentiles of the model ensemble". [Government of Germany]	paragraph has been deleted
Introduction	30	14	30	14	"qualitative "should be replaced here since "more likely than not" is a quantified estimate of uncertainty. [Government of Canada]	paragraph has been deleted
Introduction	30	14			For readability suggest "million" is used rather than the abbreviation "M" [Government of New Zealand]	paragraph has been deleted
Introduction	30	15	30	15	"cyclone activity" needs rephrasing as "activity" is not defined. Replace with intensity or frequency. [Government of United Kingdom of Great Britain & Northern Ireland]	paragraph has been deleted
Introduction	30	15	30	15	Can't find material about N Atlantic in WG1 Ch. 14 [Government of United Kingdom of Great Britain & Northern Ireland]	paragraph has been deleted
Introduction	30	21			suggest addition "but possible" after "unlikely [Government of Sweden]	paragraph has been deleted
Introduction	30	21			Suggest replacing "may be more important to" with "are also important to" or, at most, "may be as important to". The example does not demonstrate the relative importance of likely versus unlikely risks. The relative importance is likely decision-specific. [Government of Canada]	paragraph has been deleted
Introduction	30	23	30	24	Presumably this is the full range of known/expected events? [European Union]	paragraph has been deleted
Introduction	30	26	30	27	Statement implies probability of collapse of a substantial part of the Antarctic ice sheet has been calculated; Sections of WG I/II/III referred to do not quote a probability, but do state the confidence level that this event would occur. [European Union]	paragraph has been deleted
Introduction	30	27	30	27	Moreover, the Thwaites Glacier collapse's cumulative impact on nearer-term extreme flooding events should be considered. [Carl Southwell, United States of America]	paragraph has been deleted

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Introduction	30	29	30	34	WGII: 2.1 includes section 2.1.2 -- Iterative Risk Management, which supports this statement. Suggest adding citation of 2.1, keeping 2.4, and deleting 2.5. [Stewart Cohen, Canada]	paragraph has been deleted
Introduction	30	29			This report describes risk management approaches and presents information in a risk context, but it does not describe "comprehensive risk management" - suggest revising this wording. [Government of Canada]	paragraph has been deleted
Introduction	30	31			Consider replacing "may" with "will", as risk management always involves monitoring and adjustment elements. [Government of Canada]	paragraph has been deleted
Introduction	30	37	30	37	Are WG-report references needed here? [Government of Sweden]	No, deleted indeed
Introduction	30	37	30	37	Please add a space "the" and "AR5" [JACQUES ANDRE NDIONE, SENEGAL]	sentence has been changed
Introduction	30	39			Replace "un(likely)" with "likelihood" please. Please mention, that additional expressions are used where appropriate. [Government of Germany]	Sentence has been deleted
Introduction	30	47	30	47	"highest" is unclear. Please specify better. (What constitutes a sufficient level of "high"?) [Government of Sweden]	Sentence has been deleted
Introduction	30	47	30	48	This could be stated more elegantly: Factual statements, in which there is no credible doubt, are made without reference to uncertainty qualifiers. [Peter Thorne, Norway]	Sentence has been deleted
Introduction	30	47	30	48	The last sentence states that no uncertainty statement means highest certainty - is this really true throughout the text? Please check. [Government of Germany]	Sentence has been deleted