

SROCC First Order Draft Expert Review Comments - Cross-Chapter Box 5							
Comment id	Chapter	From page	From line	To page	To line	Comment	Chapter Team Response
10462	CCB5	0	0	0	0	There are a high number of references for a Cross-Chapter Box. A number of the statements could refer to the Chapters rather than specific references. [APECS Group Review, Germany]	Accepted- chapter references included
10464	CCB5	0	0	0	0	The numbering for the Cross-Chapter Box and within it (e.g. page 8, line 36 should refer to 5.4.3.) are inconsistent with the rest of the document. [APECS Group Review, Germany]	Accepted – text revised
11758	CCB5	0	0	0	0	I suggest that information is available to obtain sufficient and complete information from different countries, especially countries with hydro and marine boundaries, and to define and implement joint projects with joint facilities of the countries & IPCC or UN to complete them. This completes existing information and more accurate international decisions to face climate change, especially in the oceans and frozen regions of the planet. It is better to send a general call to countries to provide their existing information and then report them with integration so that deficiencies can be identified and completed by completing projects and field activities. [Hanieh Zargarollahi, Iran]	Rejected - beyond the mandate of the report
22230	CCB5	0	0			I very much enjoyed reading this cross-chapter box bringing together different aspects of LLIC. Are you considering adding specific or comparative case studies, besides the specific examples listed? [Debora Ley, Guatemala]	Taken into account - Developing in-depth case studies is beyond the mandate of this Crocc-Chapter Box. However, specific case studies will developed within some of the SROCC chapters (e.g., Chapter 4), and to which the CCB will refer as much as possible.
22232	CCB5	0	0			Can a map be developed of where different adaptation options can be applied with higher feasibility or where limits to adaptation are more highly expected? [Debora Ley, Guatemala]	Rejected - The CCB team won't have the opportunity to develop such a map. However, something similar is under consideration in Chapter 4 on sea-level rise implications; depending on the outcome, the CCB will refer to it.
22452	CCB5	0	0			the notion of "Global North" should be defined in the SROCC [Timothée Ourbak, France]	Accepted - For clarity we revised the text to using 'developing and developed countries
24290	CCB5	0	0			The cross chapter box would benefit from making more use of the IPCC likelihood scale; likelihood could be used, e.g. to replace or specify terms such as "is/are expected" [Hans-Otto Poertner and WGII TSU, Germany]	Accepted – text revised
24292	CCB5	0	0			please be consisten in the use of full term vs acronym (e.g. tropical cyclones vs TC) [Hans-Otto Poertner and WGII TSU, Germany]	Accepted – text revised
24474	CCB5	0	0			As an integrative cross-chapter box, the box should be integrating and highlighting key messages from all chapters with a clear line of sight back to the chapters [Hans-Otto Poertner and WGII TSU, Germany]	Taken into account - More cross-references added in the SOD version
24678	CCB5	0	0			This box should be well integrated with chapter contents and refer back to chapter sections. It is not a stand alone chapter. [Hans-Otto Poertner and WGII TSU, Germany]	Taken into account - there are cross-references to other SROCC chapter already included. Further specific references have been added for the SOD
5904	CCB5	1	8	1	8	The contribution is manly focused on impacts and adaptation, no mentions on the role of Low-lying Islands and Coasts in implementing mitigation measures. [Stefano Malatesta, Italy]	Rejected - Beyond of the scope of this cross-chapter box.
11108	CCB5	1	21	1	26	Figure-1 is very useful to understand the coastal vulunerable areas in the world due to climate change. But, this figure was made 10 years ago and the basic data of this figure was also based on the data on 20 years ago. So, it should be changed to a figure based on recent data. [Inseong Han, Republic of Korea]	Rejected - This map describes LECZ location and not LECZ vulnerability to climate change impacts. It only relies on elevation data that remain accurate today.

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10466	CCB5	1	29	3	25	Some confusion between Section 5.2 and 5.3. I think Section 5.2 should simply review the physical / chemical process from previous Chapters (with cross-ref). There is repetition of the impacts described in Box 5.3. [APECS Group Review, Germany]	Accepted - New structure for the SOD version
10468	CCB5	1	29	3	25	Aim was for Box to be 5 pages, so aim to shorten. I expected Box 5.2.1. to be a brief review of the driving processes and how they translate into risks for LLIC. RFCs are only discussed from section Box 5.5, page 10 line 57+. Suggest change 5.2.1. first paragraph, keep introductory sentence with a link to the Chapters for the three drivers of particular concern. Re-write remainder of first paragraph with emphasis on process -> risk. Remove second paragraph in lieu of specific examples given in 5.3. [APECS Group Review, Germany]	Taken into account
10470	CCB5	1	29	3	25	Box 5.3. tends to be observed and not projected. Perhaps re-write; move 5.3 to 5.2 as Observed Impact Examples and add a Section for Projected Impacts which includes the impacts text from 5.2. [APECS Group Review, Germany]	Rejected - Suggestion looks difficult because (i) anthropogenic drivers actually also explain observed impacts and so must come before; (ii) observed impacts are organized around geographies and sectors. However, the author team completely modified the structure of the text, and we hope new changes address this comment.
470	CCB5	2	0			Add after "natural features" artificial ones, such as nuclear power plants, homes, ports, roads and sewage systems that are also at risk. [William Clarke, Australia]	Taken into account
472	CCB5	2	0			Add after "marine heat waves" "and methane eruptions" [William Clarke, Australia]	Rejected - Due to the critical need of shortening the First Order Draft, and not expanding it. However, cross-reference is made with chapter 6 that deals more in details with specific extreme events.
474	CCB5	2	0			Add after "mitigation efforts" "negative emissions technologies, direct cooling effects" [William Clarke, Australia]	Taken into account - Rewording to be more comprehensive.
10472	CCB5	2	3	2	7	I have found Cross-Chapter Box 5.1 Introduction difficult to read, partly because of the numerous parentheses and even parentheses within parentheses in the third sentence. The second sentence needs restructuring and there is a repetition of the word 'efforts' in the last. Referring to 'near mean sea level' in the first sentence doesn't make much sense either in my humble opinion. [APECS Group Review, Germany]	Taken into account - (1) Rewording made. (2) "Near mean sea-level" is used because only "areas up to 10m high" is not sufficient to provide a clear definition; and to emphasize that this cross-chapter box does not consider inland lakes' shores, for example, but areas close to the sea.

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10474	CCB5	2	3	2	7	May I suggest the following for Cross-Chapter Box 5.1 Introduction? ☹️ 'Low-lying islands and coasts' (LLIC) are areas extending from mean sea level to 10 m elevation (McGranahan et al., 2007; Wong et al., 2014; Neumann et al., 2015). They encompass very diverse systems (Cross-Chapter Box 5; Figure 1) – from continental coasts (including shelf areas) to small islands, from the tropics to polar regions, in the Global North and South – and various demographic and socio-economic patterns (e.g., urban or rural). Their natural features – low elevations, sensitive ecosystems and environmental resources – place LLIC at the frontline of climate change impacts (Sections 1.3.2, 2.3., 6.x), with particularly high levels of risk (i.e., the potential for harm, loss and damage; Cross-Chapter Box 1) due to increasing anthropogenic pressure at the coast (robust evidence, high agreement ¹). Ocean- and cryosphere-related changes include both extreme events (e.g., tropical/extra tropical storms and associated surges, marine heat waves; Sections 6.3, 6.4, 6.5) and slow on-set changes (e.g., retreat of ice sheets and related permafrost thaw, sea level rise, ocean warming and acidification; Sections 3.4, 4.2, 5.2.1). Associated impacts on coastal geomorphology, ecosystems and dependent human communities are considerable, already detectable and expected to increase (medium evidence, high agreement; Gattuso et al., 2015; Nagelkerken and Connell, 2015). The magnitude of future impacts will therefore depend both on the scale of global mitigation action, and on LLIC societies' efforts towards	Taken into account - Text revised
24466	CCB5	2	3	2	17	Are there estimates for the proportion of the global coastline that is classified as LLIC, the numbers of people ?? [Hans-Otto Poertner and WGII TSU, Germany]	Taken into account - This information is provided in the sub-section on anthropogenic drivers of risk (5.2.2). LECZ population represents around 625 million people (data for 2000; no more recent ones).
24468	CCB5	2	3	2	3	Should there be a horizontal element to this to define slope? all coasts meet mean sea level [Hans-Otto Poertner and WGII TSU, Germany]	Taken into account - Definition from the literature only specifies "up to 10 m high".
24470	CCB5	2	5	2	5	Aren't shelf areas below mean sea level ? Maybe it is better to highlight the diversity of ecosystems and human systems eg wetlands, coral atolls, sand islands, coastal cities [Hans-Otto Poertner and WGII TSU, Germany]	Taken into account - We reword this to make it more explicit that close-to-the-shore marine habitats are considered as being part of the coastal system.
5906	CCB5	2	7	2	7	I would add data on the demographic size of these regions [Stefano Malatesta, Italy]	Taken into account - This information is provided in the sub-section on anthropogenic drivers of risk (5.2.2). LECZ population represents around 625 million people (data for 2000; no more recent ones).
16336	CCB5	2	11	2	14	Sea ice retreat leading to exposure to waves and therefore coastal erosion, as well as changes in habitat also needs to be specifically mentioned here (and referenced to relevant sections in the main report: see Lines 56-57 on Cross Chapter Box 5-5). [Inga Smith, New Zealand]	Accepted - Text revised
24472	CCB5	2	13	2	14	and anoxic, hypoxic conditions [Hans-Otto Poertner and WGII TSU, Germany]	Accepted
10724	CCB5	2	19	2	26	Please mark the Lena River Delta on the map. https://www.nasa.gov/topics/earth/earthday/lena_delta.html [Oxana Lipka, Russian Federation]	Rejected - according to the literature assessed, the Lena delta is not among the vulnerable deltas.
24464	CCB5	2	19	2	26	What key message is this figure conveying? [Hans-Otto Poertner and WGII TSU, Germany]	Taken into account - the figure shows the global distribution and hotspots of low-lying islands and coasts (LLIC). The caption has been revised for the Second Order Draft.
16338	CCB5	2	21	2	26	Cross-Chapter Box 5, Figure 1: The fact that this figure focusses on human impacts needs to be explicitly mentioned early in the figure caption. [Inga Smith, New Zealand]	Rejected - the case studies as assessed in the literature for SROCC are illustrated here including vulnerable areas in low-lying coasts and islands, without specifically focussing on human impacts.

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24294	CCB5	2	21	2	21	I suggest providing the acronym LLIC here again in brackets [Hans-Otto Poertner and WGII TSU, Germany]	Accepted - acronym added.
5908	CCB5	2	23	2	23	Small Island DEVELOPING Countries as a definition has been deeply challenged. Recent literature in the field of Island Studies stressed the opportunity of avoid the use of terms such as 'Developing' in defining the geography of archipelagic states [Stefano Malatesta, Italy]	Noted - however, this box does not discuss terms but refers to what is used in the relevant literature. A lot of the literature on climate change impacts in low-lying areas focuses, in fact, on SIDS. Nonetheless, we do also include other examples of non-SIDS islands explicitly in this cross-chapter box.
5910	CCB5	2	31	2	31	No mention on the management of "transitional zones" such as harbours, seagrass meadows, wetlands, mangroves. I would suggest mentioning the relevance of these human-ecosystems. [Stefano Malatesta, Italy]	Accepted - Text modified
10480	CCB5	2	33	3	20	Cross-Chapter Box 5.2.1 Climate-, Ocean- and Cryosphere-Related Processes paragraph is well written and clear, if not the parentheses following parentheses, such as ☞ (soils, groundwater, surface waters) (Section 4.3.3)☞ or ☞ (Sections 1.3.1, 1.3.2, 4.3.3, 5.2, 5.3) (robust evidence, high agreement)☞. How about? ☞ (soils, groundwater, surface waters; Section 4.3.3) ☞ and ☞ (robust evidence, high agreement; Sections 1.3.1, 1.3.2, 4.3.3, 5.2, 5.3) ☞ instead. [APECS Group Review, Germany]	Accepted - Text modified
476	CCB5	3	0			Replace "75 m" by 75m and make similar changes wherever "m" or other unit abbreviations appear on their own. [William Clarke, Australia]	Accepted - Text simplified and now no specific figures (rather reference to SROCC chapters for details)
478	CCB5	3	0			Add after "century" "unless efforts are successful in restoring the climate and oceans to health" [William Clarke, Australia]	Taken into account - Text modified to make it clearer on that point, although the suggestion itself had not been added
480	CCB5	3	0			Replace "and phytoplankton" with "phytoplankton, molluscs and crustaceans" [William Clarke, Australia]	Accepted - Text modified
482	CCB5	3	0			Add to "food security" ", CO2 sequestration by the biological carbon pump" [William Clarke, Australia]	Rejected - This cross-chapter box doesn't deal with carbon storage and mitigation aspects.
484	CCB5	3	0			After "coastal constructions" add "pollution," [William Clarke, Australia]	Accepted - Text modified
486	CCB5	3	0			Replace "loss of Indigenous" with "loss or diminution of Scientific, Indigenous" and replace "ILK" with "SILK" wherever it occurs [William Clarke, Australia]	Rejected - Initial formulation kept to be consistent with the other SROCC Chapters (especially cross-chapter box 3)
12642	CCB5	3	2	3	4	In the sentence "As a result from the uptake of atmospheric CO2 by the ocean, water pH decreased by 0.1 pH units since the beginning of the Industrial Era, representing a 30% increase...", the concept Industrial Era has not been defined in this Special Report. The Industrial Era (or Industrial Age) is a period of history that encompasses the changes in economic and social organization that began around 1760 in Great Britain and later in other countries, characterized chiefly by the replacement of hand tools with power-driven machines such as the power loom and the steam engine, and by the concentration of industry in large establishments (Industrial Revolution). The onset of the Industrial Revolution is diachronous (almost 200 years), not reaching many developing countries until the middle of the 20th century. I believe this diachronic concept should be dated somewhere in this volume. [Alejandro Cearreta, Spain]	Accepted - Text simplified and now no specific figures (rather reference to SROCC chapters for details)

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16340	CCB5	3	2	3	9	From the second sentence to the end of the paragraph: "As a result from the uptake of atmospheric CO2 by the ocean...by the end of the century (Section 4.2)." Is section 4.2 the reference for the source of all information in these sentences? The first sentence has explicit reference, in contrast to the rest of the paragraph. [Inga Smith, New Zealand]	Accepted - Text simplified and now no specific figures (rather reference to SROCC chapters for details)
13962	CCB5	3	4	3	9	Is there any regional variation worth noting (i.e. is there a region that has experienced the most of mean sea level rise?) [Debra Roberts and Durban Team, South Africa]	Taken into account - The regional variability of SLR (observed and projected) is now mentioned. The CCB being mainly a synthesis of the main chapters, details are not provided here (rather cross-reference to chapter 4). However, in a nutshell: recent papers (Carson et al. 2016, Cazenave et al. 2018 - now mentioned in the CCB) show where observed and expected changes are above (e.g., Western Pacific) and below the global mean rise.
3522	CCB5	3	7	3	7	Discuss (more clearly) that the Poles experience the greatest deviation from their climatic norms in temperature. [Michael Schwebel, USA]	Rejected - Although the reviewer is right, we considerably simplified this part of the CCB and now rather refer to the main chapters for details (in this case, chapter 4). We however kept a mention of regional variability.
10484	CCB5	3	7	3	9	I presume the statement about local differences in trends relates to projections. GCMs have less variability than real-world oceans and so these differences in the trends are probably underestimated. They also cannot account for local vertical land movement, particularly in deltas where future groundwater abstraction is unknown. I would suggest re-writing this sentence, along the lines of "Local sea level change will differ from the global mean, with estimates around 20% difference, plus differences due to vertical land motion". If you keep this sentence unchanged, remove "on top of", it incorrectly implies local trends are always higher than the global mean. [APECS Group Review, Germany]	Taken into account - Yes, the reviewer is right, trends refer to projections. However, the paragraph had been drastically shortened and now all details on mean/rates/ranges for SLR, ocean warming, acidification, etc. had been removed. Cross-reference with main chapters are proposed for more details.
10486	CCB5	3	8	3	9	To compare with "rare" need to incorporate timescale. Change "become normal" to "occur more often" or "become common". [APECS Group Review, Germany]	Accepted - Sentence modified (+ cross-reference to section 4.2.3.4.1 and Fig. 4-10.
10488	CCB5	3	8	3	9	The statement that extremes will become "normal" is rather sweeping and may not be the case for all coastlines and small islands. The wording "normal" also implies a median or mean within a specific probability distribution. I would prefer "occur more often". [APECS Group Review, Germany]	Accepted - Sentence modified (+ cross-reference to section 4.2.3.4.1 and Fig. 4-10.
16342	CCB5	3	9	3	11	"Combined with storm surges and waves, sea level rise will generate temporary or permanent marine flooding, coastal erosion and salinization (soils, groundwater, surface waters) (Section 4.3.3)" Suggest modifying this to read: " Combined with storm surges and waves, AND THE LOSS OF PROTECTIVE SEA ICE AND ICE SHELF BARRIERS IN POLAR REGIONS, sea level rise will generate temporary or permanent marine flooding, coastal erosion and salinization (soils, groundwater, surface waters) (Section 4.3.3)" [Inga Smith, New Zealand]	Rejected - Ice shelf barriers are unknown to the author team and the possible loss of protection of sea ice is already captured in the phrasing "combined with storm surges and waves, sea level will" as it is the combination of these elements.

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10476	CCB5	3	11	3	16	Because we are discussing physics and chemistry changes for LLIC in that sentence of Cross-Chapter Box 5.2.1 Climate-, Ocean- and Cryosphere-Related Processes, rather than referring back to the entire Sections 5.2 and 5.3, shouldn't we instead be pointing at 5.2.1.2.4 and 5.2.3 respectively? [APECS Group Review, Germany]	Accepted - Text modified
16344	CCB5	3	16	3	16	"Ocean acidification will indeed have major impact " Suggest modifying this to read: "Ocean acidification will have major impacts " [Inga Smith, New Zealand]	Accepted - Text modified
24298	CCB5	3	16	3	19	Having « pelagic communities » here doesn't make sense, as before phytoplankton and zooplankton, which are both part of pelagic communities, are separately listed. I suggest saying something like « pelagic vertebrates » or « large pelagic vertebrates and invertebrates » or « fish, squid and marine mammals » [Hans-Otto Poertner and WGII TSU, Germany]	Accepted. Text revised accordingly.
24296	CCB5	3	17	3	17	I wouldn't count mangroves as being part of the benthic community [Hans-Otto Poertner and WGII TSU, Germany]	Agreed. Text revised accordingly.
10478	CCB5	3	19	3	20	Refer here in that last sentence of Cross-Chapter Box 5.2.1 Climate-, Ocean- and Cryosphere-Related Processes to Sections 5.2.2.3, 5.2.3, 5.3.1.1 and 5.3.1.2 more specifically for extensive discussion on the aforementioned impacts. [APECS Group Review, Germany]	Accepted - Text modified
1670	CCB5	3	25	3	25	add to Arctic refs: Marino, E (2015) Fierce Climate, Sacred Ground: An Ethnography of Climate Change in Shishmaref, Alaska. Fairbanks: University of Alaska Press. [Lawrence Hamilton, USA]	Accepted
5912	CCB5	3	27	3	27	I would suggest adding some references on "small islands" [Stefano Malatesta, Italy]	Taken into account - Literature completed all over the cross-chapter box.
16346	CCB5	3	27	3	31	"Conclusions demonstrate that human societies contribute to generate their own local exposure and vulnerability to climate-related hazards (Section 4.3.2.2), through both individual (e.g., coastal constructions, sand mining, poverty, inadequate resource extraction) and combinations of anthropogenic drivers such as coastal urbanization, coastal squeeze, intensified and conflicting resource use, trends in socioeconomic inequalities (robust evidence, high agreement)." I found this sentence awkward to read. I think this is talking about "individual drivers" (meaning single factors) and "complex factors", but I am still not sure about that, even though I have read the sentence several times. Suggest rewording this (if this is correct) as: "Conclusions demonstrate that human societies contribute to generate their own local exposure and vulnerability to climate-related hazards (Section 4.3.2.2), through both individual anthropogenic factors (e.g., coastal constructions, sand mining, poverty, inadequate resource extraction) and complex anthropogenic factors such as coastal urbanization, coastal squeeze, intensified and conflicting resource use, trends in socioeconomic inequalities (robust evidence, high agreement)." [Inga Smith, New Zealand]	Taken into account

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10482	CCB5	3	28	3	32	The second sentence of the first paragraph of Cross-Chapter Box 5.2.2 Anthropogenic Drivers is incomprehensible. First, conclusions don't ☹ demonstrate ☹ but rather give a summary. Second, the use of past perfect would make it clearer that both individual and combined anthropogenic drivers increase human societies' exposure and vulnerability to climate-related hazards. [APECS Group Review, Germany]	Accepted - Rewording
13964	CCB5	3	30	3	30	Recommend replacing 'inadequate' with 'unsustainable' [Debra Roberts and Durban Team, South Africa]	Accepted - Rewording
10490	CCB5	3	34	3	38	The first sentence of that second paragraph of Cross-Chapter Box 5.2.2 Anthropogenic Drivers is confusing, because other anthropogenic drivers are discussed further down the track. How about changing it to the following? ☹ Individually, human-made drivers are better captured. The loss of Indigenous and Local Knowledge (ILK; Cross-Chapter Box 3) for example, an emerging issue, critically influences how people [...] ☹. [APECS Group Review, Germany]	Accepted - Rewording
22648	CCB5	3	35	3	47	Please don't mix Indigenous knowledge and local knowledge in one term. They are separate ways of knowing, and should be considered separately. [Eva Kruemmel, Canada]	Accepted - Rewording in line with the new developments in Cross-Chapter Box 3
10492	CCB5	3	38	3	45	Repetition of "Scholars" in the consecutive sentences three and four of the second paragraph of Cross-Chapter Box 5.2.2 Anthropogenic Drivers. [APECS Group Review, Germany]	Accepted - Rewording
16348	CCB5	3	38	3	54	"Global North contexts" and "Global South contexts": I know that this is an accepted term in social sciences to also include nations that are physically in the opposite hemisphere (e.g., New Zealand is a Global North country), but given that this report will hopefully have wider readership, I would suggest finding another word here, since some Pacific Island nations with ILK loss and exposure to climate risks (New Zealand, for example) are in the "Global North" but are physically in the South. I have never heard the word "Global North" used in New Zealand, for example. Suggest change this word, or add a footnote explaining "where" the Global North and Global South are. [Inga Smith, New Zealand]	Accepted - text revised.
22168	CCB5	3	38	3	38	While, to my knowledge, not much recent, peer reviewed literature may be available on how ILK influences how people recognize and respond to environmental risk in Caribbean SIDS, I believe the following publication should be cited: Gamble, D.W. et al., 2010: Climate Change, Drought, and Jamaican Agriculture: Local Knowledge and the Climate Record. Annals of the Association of American Geographers, 100, doi:10.1080/00045608.2010.497122 [Cedric Van Meerbeeck, Barbados]	Rejected - We checked this publication, but the mandate of this CCB and report is to focus on ocean- and cryosphere-related changes, hence the scope of the literature cited.
24300	CCB5	3	38	3	40	When writing « scholars », do you mean scientists? If yes, I suggest using the term « scientists » [Hans-Otto Poertner and WGII TSU, Germany]	Accepted - text revised.
3524	CCB5	3	49	3	49	Density examples could help in this instance - such as Tarawa/Kiribati and (from a different perspective) the extremely high concentration of dialysis patients in Pago Pago, American Samoa. [Michael Schwebel, USA]	Rejected - This sentence has been removed from the Second Order Draft.
10494	CCB5	3	49	4	3	Repetition of "Modelling" in the consecutive sentences four and five of the third paragraph of Cross-Chapter Box 5.2.2 Anthropogenic Drivers. [APECS Group Review, Germany]	Accepted - text revised.

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16350	CCB5	3	51	3	51	"In that year already, the LECZ was estimated to host 625 million people" Suggest changing this to: "In that year, the LECZ was already estimated to host 625 million people" [Inga Smith, New Zealand]	Accepted - text revised.
488	CCB5	4	0			Add after "O'Neil, 2016)" "provided that dire climate effects do not massively reduce global population" [William Clarke, Australia]	Rejected - This piece is not supported by references.
490	CCB5	4	0			Insert before "wealth" "health," [William Clarke, Australia]	Accepted
492	CCB5	4	0			After "Schechter, 2013)" add "and may well prove nugatory, of short duration, or even latterly harmful, in light of escalating stress" [William Clarke, Australia]	Rejected - Need to focus explicitly on the CCB scope.
17284	CCB5	4	1	4	1	clarification needed of if the number 3 in the SSP3 is related to a simulation over the time of SSP [Iulian Florin Vladu, Germany]	Unclear comment. The CCB refers to the SSP No.3 (usually called "Regional rivalry"), now commonly used in the scientific literature and especially in the paper cited in this paragraph (i.e. Jones and O'Neill, 2016).
10496	CCB5	4	5	4	21	The Fourth and Fifth paragraph of Cross-Chapter Box 5.2.2 Anthropogenic Drivers need restructuring, and we should refer to "a concentration of assets [...] " in the third sentence. [APECS Group Review, Germany]	Accepted
10498	CCB5	4	12	4	17	The section starting from "In rural LLIC [...] " to " [...] the loss of vegetated coastal ecosystems (e.g., mangroves and salt marshes) " in Cross-Chapter Box 5.2.2 Anthropogenic Drivers provides another example of dynamic mechanism between socioeconomic processes and coastal development, and could therefore become the start of a new paragraph: "Growing pressure on freshwater lenses due to population densification in rural LLIC, such as outer atolls, usually increases communities' exposure to brackish polluted groundwater, which in turn pauses water security and health problems (Storey and Hunter, 2010; Lazrus, 2015; Duvat et al., 2017). In the Arctic [...] ". [APECS Group Review, Germany]	Taken into account
5914	CCB5	4	14	4	14	Among the factors generating growing pressure on freshwater lenses and, more generally on the transitional ecosystems, I would mention waste management and, above all, dumping and open air burning systems [Stefano Malatesta, Italy]	Taken into account - Rewording
3526	CCB5	4	15	4	15	Discuss saltwater intrusion here and crop changes and how low-lying islands adapt to food security / sovereignty issues [Michael Schwebel, USA]	Rejected - These points are already discussed in CCB-5.3.3 and more extensively in Chapter 4 (4.3.3).
1672	CCB5	4	17	4	17	"Twentieth-century government decisions sedentarized formerly mobile Arctic populations in some locations that are now at risk, and may face abandonment, due to climate-linked erosion (Marin 2015; Hamilton et al. 2016)." add ref: Hamilton, L.C., K. Saito, P.A. Loring, R.B. Lammers & H.P. Huntington. 2016. "Climigration? Population and climate change in Arctic Alaska." Population and Environment 38(2):115–133. doi: 10.1007/s11111-016-0259-6 [Lawrence Hamilton, USA]	Rejected - Sentence not found in the text.
17286	CCB5	7	18	7	28	Suggest to move In coastal Bangladesh, salinity is projected to have an unambiguously negative influence on all dry season crops over the next 15 to 45 years (especially in the South-West; Kabir et al., 2018), as well as oilseed, sugarcane and jute cultivation was reported to be already discontinued due to challenges to cope with current salinity levels (Khanom, 2016) above to line 18 , right after (Dasgupta et al., 2017), as both talk about Bangladesh [Iulian Florin Vladu, Germany]	Rejected - Although the example of Bangladesh is used again, the sentence is about crop production as the precedent ones.

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130	CCB5	4	19	4	20	One key illustration is the sediment starvation due to damming, deforestation and land use change () on downstream coastal areas (Kondolf et al., 2014), or locally due to the loss of vegetated coastal ecosystems (e.g., mangroves and salt-marshes). [Mostafa Jafari, Iran]	Accepted
3528	CCB5	4	23	4	23	Some adaptation methods are being explored - such as higher-temperature-resistant coral varieties in American Samoa, however, these are not seen as panaceas as they are 1-2C (perhaps trivially) more tolerant. [Michael Schwebel, USA]	Taken into account - Supposed to refer to Page 8 line 23 instead of page 4 line 23, right? If correct, that's already covered in 5.4.1.
5916	CCB5	4	23	4	25	I would suggest anticipating this short sentence, using it as an opening statement. [Stefano Malatesta, Italy]	Accepted
10500	CCB5	4	23	4	25	No new information. Rather, a repetition and more concise version of the first paragraph of Cross-Chapter Box 5.2.2 Anthropogenic Drivers. [APECS Group Review, Germany]	Taken into account
24302	CCB5	4	23	4	25	Is this « irrevocably » confirmation based on this single publication ? This publication is from 2012, which does also not seem very « recent literature » [Hans-Otto Poertner and WGII TSU, Germany]	Taken into account
10506	CCB5	4	30	4	30	there is a statement of confidence here, but this is not associated with any references - is this based on the authors' opinions, or can some of the 'robust evidence' be cited? [APECS Group Review, Germany]	Taken into account
10508	CCB5	4	31	4	32	I fully understand that 'selected examples' can be given, but this could do with a statement justifying the choices, or the process adopted in making those choices. [APECS Group Review, Germany]	Taken into account
13966	CCB5	4	32	4	41	Replace 'a same' with 'the same' [Debra Roberts and Durban Team, South Africa]	Rejected - Not identified in the text

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Comment id	Chapter	From page	From line	To page	To line	Comment	Chapter Team Response
22170	CCB5	4	34	5	41	The sub-section Cross-Chapter Box 5.3.1 Major Impacts on Economic Sectors does not currently highlight the challenges in water management and, consequently tourism arising from saline intrusion into aquifers and (sub-)surface water reservoirs in low-lying, coastal areas in SIDS. According to the World Resources Institute (Reig et al., 2013), 7 eastern Caribbean SIDS are among the 36 most water stressed countries in the world. Given that precipitation and temperature projections for the eastern Caribbean already point to growing water stress imbalance towards the end of the 21st Century (e.g. Cashman et al., 2010), and that some islands resort to a substantial degree on groundwater and (sub-)surface water reservoirs for their freshwater supply, saline intrusion due to sea level rise is set to further compound the water stress imbalance. Besides posing a growing challenge on water resources management at the supply end, the growing water stress imbalance will, in turn, affect a range of sectors including agriculture and food production, fire management and, perhaps critical to many of the water stressed Caribbean SIDS, tourism (e.g. Emmanuel and Spence, 2009). Refs.: Cashman, A., L. Nurse and J. Charlery, 2010: Climate Change in the Caribbean: The Water Management Implications. The Journal of Environment & Development, 19 (1), 42-67, doi:10.1177/1070496509347088. Emmanuel, K. and B. Spence, 2009: Climate change implications for water resource management in Caribbean tourism. Worldwide Hospitality and Tourism Themes, 1 (3), 252-268, doi:10.1108/17554210910980594. Reig, P., A. Maddocks and F. Gassert, 2013: World's 36 Most Water-Stressed Countries - World Resources Institute [Internet]. Available from: http://www.wri.org/blog/2013/12/world%E2%80%99s-36-most-water-stressed-countries . [accessed on: 29 Dec 2017]. [Cedric Van Meerbeeck, Barbados]	Taken into account - Text completed
22464	CCB5	4	34	5	43	Unless I am mistaken, the architecture of this paragraph is somehow confusing: in the second paragraph of that section (starting line 47), a specific order of sector is proposed, which is not the order followed thereafter, and there is no clue on why a sector is prioritised over another, is it in term of percentage of GDP over the LLIC for instance? [Timothée Ourbak, France]	Rejected - There is no specific order here. It is a list of examples of induced effects and it is introduced by "such as"
10502	CCB5	4	36	4	39	The first sentence of Cross-Chapter Box 5.3.1 Major Impacts on Economic Sectors is too long and incomprehensible. How about having 2 sentences here: ☛ The number of LECZ inhabitant is expected to increase way into 2050 and the economic impact will be particularly significant (Jones and O'Neill, 2016; Merkens et al., 2016) considering their high dependency on ocean and maine ecosystems. Additionally, LLIC 's natural and human systems have high exposure to climate-, ocean- and cryosphere-realted changes (United Nations, 2017). ☛ [APECS Group Review, Germany]	Accepted - Sentence modified
10510	CCB5	4	40	4	40	erroneous 'e.g.' [APECS Group Review, Germany]	Accepted - Removed
13968	CCB5	4	40	4	40	Do you mean 'Gross Domestic Product'? [Debra Roberts and Durban Team, South Africa]	Accepted
10512	CCB5	4	44	4	44	Please explain what sunk and fixed costs are [APECS Group Review, Germany]	Taken into account - Changed for "variable and fixed"

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Comment id	Chapter	From page	From line	To page	To line	Comment	Chapter Team Response
10504	CCB5	4	47	4	51	To avoid starting this 2nd paragraph of Cross-Chapter Box 5.3.1 Major Impacts on Economic Sectors like the following one, how about: ☹ With critical economic sector under threat, climate change impacts will challenge various aspects, such as wealth and poverty, employment, livelihood and well-being , hunger and food security (Sections 4.4, 5.3.1). ☹ [APECS Group Review, Germany]	Accepted - Text modified
10514	CCB5	4	47	4	48	This sentence is rather clunky and hard to understand - can it be reworded? [APECS Group Review, Germany]	Accepted - Text modified
10516	CCB5	4	47	4	48	Refer, here, in that particular sentence of Cross-Chapter Box 5.3.1 Major Impacts on Economic Sectors to Section 5.3.2. Not 5.3.1 [APECS Group Review, Germany]	Taken into account - Modified
11060	CCB5	4	47	4	47	suggest to add the issues of economics security and social stability of local coastal communities to some degree. [Kim Lian Chan, Malaysia]	Taken into account - Economic security is already considered, and social aspects are discussed in various sections below
13970	CCB5	4	49	4	49	Is this in the past, present or future? Also, what will the difference be in the near and long term under different RCP scenarios? [Debra Roberts and Durban Team, South Africa]	This for the future, and the range covers all RCPs. text has been amended.
494	CCB5	5	0			After "Asian countries" add "unless methods are successfully implemented to reverse the decline in marine primary productivity, acidification and stratification" [William Clarke, Australia]	Accepted
496	CCB5	5	0			After "storm waves" add ",surges and tsunamis" [William Clarke, Australia]	Rejected - Not identified in the text
498	CCB5	5	0			Insert after "due to" "flooding, " [William Clarke, Australia]	Taken into account
500	CCB5	5	29	5	29	Replace "in safer" with "to safer" [William Clarke, Australia]	Accepted
502	CCB5	5	35	5	35	Replace "host" with "temporary hosting" [William Clarke, Australia]	Accepted
504	CCB5	5	37	5	37	Replace "Eventually" with "Currently, and with escalating effect," [William Clarke, Australia]	Accepted
506	CCB5	5	38	5	38	Replace "and insurance costs" with ", insurance costs and availability" [William Clarke, Australia]	Accepted
508	CCB5	5	45	5	45	Replace "life-stay" with "lifestyle" [William Clarke, Australia]	Accepted
1674	CCB5	5	1	5	1	"Twentieth-century crises in Atlantic cod and herring fisheries illustrate the potential for adverse interactions between climatic variations and fishing pressure leading to fisheries collapse, with lasting impacts on fisheries-dependent regions (Hamilton 2007)." add ref: Hamilton, L.C. 2007. "Climate, fishery and society interactions: Observations from the North Atlantic." Deep Sea Research II 54:2958–2969. doi: 10.1016/j.dsr2.2007.08.020 [Lawrence Hamilton, USA]	Rejected - Not identified in the text
10518	CCB5	5	1	5	3	Use of "which" instead of "that" in the 3rd paragraph of Cross-Chapter Box 5.3.1 Major Impacts on Economic Sectors: ☹ The impacts of ocean warming and acidification on coral reefs will have consequences on various species (Sections 4.3.3.2.2, 5.2.2.3.3), which are directly consumed by human beings and critical to the broader food web-chain (Section 5.3). ☹ [APECS Group Review, Germany]	Accepted - text revised.
11110	CCB5	5	1	5	1	Among Asian countries, the negative impacts of climate change on fisheries are importantly appeared in the Southeast Asia. So, it is need to change Asian countries to Southeast Asian countries in this sentence. [Inseong Han, Republic of Korea]	Accepted - text revised.
10526	CCB5	5	2	5	2	coral reefs are given a specific mention here, but without context of how important they are for SIDS / LLIC [APECS Group Review, Germany]	Rejected - But reference made to section 5.2.2.3.3, for more details.
5918	CCB5	5	6	5	17	Coastal tourism is a key-factor, maybe this part could be transformed into a per se "paragraph", to stress this relevance. [Stefano Malatesta, Italy]	Rejected -- The FOD text already made the case for tourism; comment not understood.

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Comment id	Chapter	From page	From line	To page	To line	Comment	Chapter Team Response
11070	CCB5	5	6	5	6	suggest to mention: important natural resource for tourism business and lesiure and recreation activities. [Kim Lian Chan, Malaysia]	Taken into account - Text hugely modified
10528	CCB5	5	12	5	12	should this be: "... effects such as an increase in invasive species..." [APECS Group Review, Germany]	Accepted - text revised.
13972	CCB5	5	12	5	12	Disease spreading what? [Debra Roberts and Durban Team, South Africa]	Accepted - text revised.
10530	CCB5	5	19	5	21	Water-borne diseases in that sentence of Cross-Chapter Box 5.3.1 Major Impacts on Economic Sectors is previously discussed in Section 5.3.2.1.1 in particular. [APECS Group Review, Germany]	"Rejected - the author team could not address this comment as it is not understood"
10548	CCB5	6	19	6	46	Observed impact: sugest addition of so-called nuisance flooding on small islands. The process is, rising sea levels lead to an elevated high-water and low-water with tides. Particularly pronounced where there is small tidal range, so that high-water levels exceed natural geomorphology or infrastructure design on a regular basis, particularly around the periods of spring tidal range (the spring and autumn equinox and on a 4-week cycle with lunar perigee). Impacts e.g. Hawai'i (Thompson et al 2018, AGU Ocean Science & manuscript in preparation). Response e.g. Philippines (Jamero et al 2017, Nat CC, doi:10.1038/nclimate3344) [APECS Group Review, Germany]	Rejected - Not discussed in SROCC chapters, and so not inlcuded into theis cross-chapter that need to reflect chapters' contend.
10540	CCB5	5	23	5	23	Flooding in Houston from Hurricane Harvey is not a Major Impact on Small Islands - remove. [APECS Group Review, Germany]	Accepted - text revised.
10520	CCB5	5	24	5	29	3rd sentence in the 6th paragraph of Cross-Chapter Box 5.3.1 Major Impacts on Economic Sectors ➡ Changes in the basic conditions of [...] migration in safer locations (Connell, 2016; Janif et al., 2016). ➡ should probably comes before the 2nd sentence ➡ Although it remains [...] by the end of this century (Strauss et al., 2015). ➡ [APECS Group Review, Germany]	Taken in to account - This paragraph had been extensively revised
10542	CCB5	6	24	6	26	Unnecessary sentence beginning "Recent events occurring in the Pacific..." [APECS Group Review, Germany]	Accepted - text revised.
13974	CCB5	5	24	5	26	Important information that should make its way into the SPM. Also suggest finer details in terms of the regional distribution. [Debra Roberts and Durban Team, South Africa]	Taken into account - Some information (main insights from the CCB) has been reported-back to the SPM drafting team.
10544	CCB5	6	25	6	30	Shorten - reduce these sentences, e.g. "Tropical Cyclones Pam (2015) and Winston (2017) resulted in economic losses between 41% and 59% of GDP for Vanuatu and Fiji respectively (refs). Recovery from Hurricanes Maria and Irma (2017) in the Caribbean is estimated to cost over US\$ 5 billion (ref). Anthropogenic ..." [APECS Group Review, Germany]	Accepted - text revised.
10546	CCB5	6	25	6	30	In the paragraphs about economic loss from Hurricanes and TCs, the reference do not support a direct attribution of the storm intensity and therefore damage to the change in oceans and cryosphere. So a summary of example losses is adequate. The attribution of events to climate change is important in the context of this report. [APECS Group Review, Germany]	Taken into account - We do not attribute these events to climate change in oceans and cryosphere, but rather show to what extend these events can be damaging for small islands. The text doesn't aim at going in-depth the attribution issue.
10532	CCB5	5	34	5	34	"... will have an economic impact on..." is this a positive or negative impact? Worth being explicitly here, as I can imagine scenarios where both occur (e.g. positive impact to destination areas through increased working population) [APECS Group Review, Germany]	Rejected - It is hard to say positive or negative, as a specific area will probably experience both at the same time (i.e., winners and losers), and because of the potential variability of the positive/negative ratio from one place to another. Depending on space availability (text length), this point will however be explored for the Final Draft.

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Comment id	Chapter	From page	From line	To page	To line	Comment	Chapter Team Response
10594	CCB5	5	34			<p>Climate change will impact LLIC through reduction in ecosystem services provided by coastal ecosystems, including mangroves, seagrasses, coral reefs, oyster reefs, salt marshes, estuaries, muddy, sandy and rocky shores. For instance, coral reefs provided coastal protection for 63 million people in 2007 (Pendleton et al., 2016) and employed about 6 million reef fishers in 2005 (Teh et al 2013) in the world, and the loss of ecosystem services due to climate change could amount to billions of dollars every year (Chen et al. 2015). Loss of coastal protection from reefs could double expected damages from flooding and triple costs from storms (Beck et al., 2018). As another example, if mangroves cannot keep pace with SLR (Section 4.4.3.3.2.1), their ability to protect coastal populations (Das and Vincent, 2009) may be lost.</p> <p>References : Beck et al. (2018). The global flood protection savings provided by coral reefs. Nature</p> <p>Pendleton et al. (2016). Coral Reefs and People in a High-CO2 World: Where Can Science Make a Difference to People? PLoS ONE.</p> <p>Teh et al. (2013). A Global Estimate of the Number of Coral Reef Fishers. PLoS ONE.</p> <p>Chen et al. (2015). Evaluating the economic damage of climate change on global coral reefs. Global Environmental Change</p> <p>Das and Vincent. (2009). Mangroves protected villages and reduced death toll during Indian super cyclone. PNAS [Adrien Comte, France]</p>	Rejected -- To which sentence does this comments refer? To the whole 5.3 section? If yes, the author team doesn't see how to integrate this as the structure of 5.3 is sector- and territory-based, and the impacts on ecosystems services is relevant for all the sectors and geographies considered.
10534	CCB5	5	35	5	35	is there a difference between "destination" and "host" areas? [APECS Group Review, Germany]	Taken into account - The text now reads "...; on both permanent and temporary hosting areas".
10550	CCB5	5	36	5	46	Suggest add: Erosion and inundation due to sea level rise in synergy with wave impact, e.g. Solomon Is. (Albert et al 2016, ERL, doi:10.1088/1748-9326/11/5/054011), Maldives (Wadey et al 2017, Nat. Haz. doi:10.1007/s11069-017-2957-5) and Marshall Is. (Ford et al 2018, Nat. Haz., doi:10.1007/s11069-018-3183-5) [APECS Group Review, Germany]	Rejected -- To which sentence does this comments refer? Maybe to p. 3 line 12? Doesn't it ratyher refer to chapter 4?
10536	CCB5	5	39	5	41	the last part of this section needs a reference [APECS Group Review, Germany]	Taken into account - Text revised
3530	CCB5	5	40	5	40	There's a dialogue occurring between adapting and managing retreat and staying on-site that varies with a locale and the size of the jurisdiction. [Michael Schwebel, USA]	Taken into account - Point included in the text
10522	CCB5	10	45	10	45	Is "lifestyle" meant in the 1st sentence of Cross-Chapter Box 5.3.2 Major Impacts on Arctic Communities. What is "life-stay"? [APECS Group Review, Germany]	Accepted - text revised (typo)
13976	CCB5	5	45	5	45	What is contained here is a given. Recommend a quantification of the actual loss related to this change. If there is not sufficient information for assessment, this should be indicated as a gap in the current literature. [Debra Roberts and Durban Team, South Africa]	Taken into account - The authors didn't identify any existing information on the "big picture".
16352	CCB5	5	45	5	45	"life-stay": I do not know what this word means. [Inga Smith, New Zealand]	Accepted - text revised (typo)
1676	CCB5	5	49	5	49	"or west Greenland (Hamilton et al. 2003)." add ref: Hamilton, L.C., B.C. Brown & R.O. Rasmussen. 2003. "West Greenland's cod-to-shrimp transition: Local dimensions of climatic change." Arctic 56(3):271–282. [Lawrence Hamilton, USA]	Accepted - Text modified
10538	CCB5	5	51	5	53	the first sentence of this paragraph needs a reference [APECS Group Review, Germany]	Taken into account - Text modified and completed.

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Comment id	Chapter	From page	From line	To page	To line	Comment	Chapter Team Response
10524	CCB5	5	53	5	56	The 2nd sentence in that 2nd paragraph of Cross-Chapter Box 5.3.2 Major Impacts on Arctic Communities could be spilt in two, with the latter being: “ In contrast to LLIC elsewhere, additional factors unique to the polar regions heighten the risk in a future warmer world ”. Nota bene: No repetition of "world". [APECS Group Review, Germany]	Taken into account - Text modified.
510	CCB5	6	0			Replace "causes" with "cause" [William Clarke, Australia]	Taken into account
512	CCB5	6	0			After "Gorokhovich et al., 2013." add "Such losses are currently being addressed by the costly and disruptive means of community relocation, when arrays of thickened ice might be used to protect both the settlements and cryospheric habitat." [William Clarke, Australia]	Taken into account - Text modified.
514	CCB5	6	20	6	21	After "City" add "and New Jersey," [William Clarke, Australia]	Rejected - Example removed from the new text.
10552	CCB5	7	1	7	3	Needs IPCC confidence and likelihood statement: "As a result, considerable flood protection measures will probably be implemented" [APECS Group Review, Germany]	Taken into account - Point well taken, but sentence removed from the SOD.
10558	CCB5	6	6	6	7	"This phenomenon is somewhat unique to Alaska" - if this is the case, what is it's wider relevance? What about other polar LLIC communities? The following sentence provides another example from Alaska, despite implying it is concerned with these other, non-Alaskan, communities [APECS Group Review, Germany]	Taken into account - Text modified.
3532	CCB5	6	9	6	9	Perhaps this section should have more Arctic examples than just Alaskan examples only. [Michael Schwebel, USA]	Taken into account - At this stage we decided to keep some geographical focus to show the similarities within a given region in terms of responses to common threats. But the reviewer's point is taken and we'll pay attention in the Final Draft to bring more diversified examples.
10556	CCB5	6	9	6	15	Shouldn't this last paragraph be the first of Cross-Chapter Box 5.3.2 Major Impacts on Arctic Communities? [APECS Group Review, Germany]	Rejected - This paragraph had been entirely removed from the CCB
16354	CCB5	6	9	6	9	"The communities of Arctic Alaska are populated primarily with Iñupiat, " Suggest you change this (strange) wording to: "Iñupiat are the majority of the population in Arctic Alaska communities" [Inga Smith, New Zealand]	Rejected - This paragraph had been entirely removed from the CCB
22650	CCB5	6	9	6	15	This is the case for virtually all coastal Arctic Indigenous Peoples, and in particular for circumpolar Inuit (which includes Inupiat and Yupik = Inuit in Alaska, as well as Inuit in Canada, Greenland and Russia (Chukotka) - there are several reports, assessments and papers which point that out. The paragraph makes it sound like this is only the case for the Inupiat communities of Arctic Alaska, which is not the case. [Eva Kruemmel, Canada]	Rejected - This paragraph had been entirely removed from the CCB
1678	CCB5	6	14	6	14	add ref: Marino (2015) [Lawrence Hamilton, USA]	Accepted
1680	CCB5	6	15	6	15	"At risk of damaging or dangerous floods, a number of communities face the need for relocation (USACE 2009), but their populations are often still growing (Hamilton et al. 2016)." add refs: Hamilton, L.C., K. Saito, P.A. Loring, R.B. Lammers & H.P. Huntington. 2016. "Climigration? Population and climate change in Arctic Alaska." Population and Environment 38(2):115–133. doi: 10.1007/s11111-016-0259-6; USACE. 2009. Alaska Baseline Erosion Assessment: Study Findings and Technical Report. United States Army Corps of Engineers. http://www.poa.usace.army.mil/Library/Reports-and-Studies/Alaska-Baseline-Erosion-Assessments/ accessed 6/5/2018. [Lawrence Hamilton, USA]	Rejected - (1) The mandate of the CCB is to prioritize the assessment of post-AR5 literature. (2) It is an almost 10 years old report that does not provide an updated assessment of observed coastal erosion in the region. (3) This report does not extensively deal with the implications of climate change for coastal erosion.

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Comment id	Chapter	From page	From line	To page	To line	Comment	Chapter Team Response
3534	CCB5	6	19	6	19	NYC and Houson examples should be better tied-in to the subtitle/subheading "Major Impacts on Small Islands" as their connection is not very clear at the moment. [Michael Schwebel, USA]	Accepted - text revised
10554	CCB5	6	19	6	46	While the loss of islands obviously has the largest potential impact, it is worth emphasising the loss of water quality (by salination) and food security may be the primary driver of socio-economic change, before flood impacts. Particularly important for small island developing states. [APECS Group Review, Germany]	Taken into account - Text revised
11112	CCB5	6	19	6	34	This sector usually described the impacts on small islands due to extreme events. But, impacts due to extreme events were concentrated about the flooding by TC or hurricanes. It is needs to suggest the another impacts by extreme events. [Inseong Han, Republic of Korea]	Taken into account - Text revised
10560	CCB5	6	27	6	28	"In 2017, TC Winston..." this sentence needs a reference [APECS Group Review, Germany]	Accepted - text revised
22466	CCB5	6	27	6	28	no reference for this specific TC [Timothée Ourbak, France]	Accepted - text revised
10562	CCB5	6	36	6	46	This paragraph tries to make the point that 'drowning' of small islands may not be as severe as previously assumed. However, this is caveated by the fact that this only applies "when shoreline processes have not been dramatically disturbed", which is certainly not the case for many shorelines. Can the authors provide some data to support how much coastline is not disturbed, and therefore perhaps not at such a great risk of drowning? [APECS Group Review, Germany]	Rejected - Good point, but this cross-chapter box doesn't aim at providing in-depth data, but only at describing the big picture in terms of processes, impacts and adaptation responses. More details can be found in the references cited.
22468	CCB5	6	36	6	46	the "keep up theory" of coral reef regarding paleoclimate temporarily should be investigated and potentially integrated into this paragraph (see Cabioch) [Timothée Ourbak, France]	Rejected - Good point, but the paragraph focuses on shoreline changes and doesn't go into the detail of underlying processes of such shoreline changes. Details on coral reefs in the face of SLR are provided in Chapter 4 (section 4.3.3).
24304	CCB5	6	39	6	39	I suggest using the term "study" instead of "scholarship" [Hans-Otto Poertner and WGII TSU, Germany]	Accepted - Text revised
3536	CCB5	6	43	6	43	While fascinating, this mention gives the false connotation that climate change is not so "existential" when it is. In other words, citing the studies in the way they are currently cited causes millimeters in rise of landmass to be misconstrued as correlating to atoll and archipelagic geomorphological response to climate change and perhaps a false sense of security. [Michael Schwebel, USA]	Taken into account - Text revised to try avoiding such a bias.
13978	CCB5	6	52	6	52	Insert 'are' before 'located' [Debra Roberts and Durban Team, South Africa]	Accepted
13980	CCB5	6	55	7	1	Important information that should make its way into the SPM. Also suggest finer details in terms of the regional distribution. [Debra Roberts and Durban Team, South Africa]	Taken into account - Some information (main insights from the CCB) has been reported-back to the SPM drafting team.
10564	CCB5	6	56	6	56	"up from 6 billion at present" - I assume this is \$6 billion USD? [APECS Group Review, Germany]	Accepted -- text revised.
10574	CCB5	6	57	7	1	"... along with the assumption of no significant adaptation measures" - given recent progress in climate mitigation, shoreline protection, etc, if this a fair assumption? [APECS Group Review, Germany]	Rejected -- the assumption refers to a lack of adaptation action, not climate mitigation.
10566	CCB5	7	5	7	7	Are we referring here, in this 2nd paragraph of Cross-Chapter Box 5.3.4 Major Impacts on Coastal Cities and Megacities, to small and mid-sized coastal cities? Then what? [APECS Group Review, Germany]	Taken into account - Although the authors didn't well understand the comment, the paragraph better integrate the non-megacities perspective.
10576	CCB5	7	5	7	7	not sure what point this paragraph is making - perhaps needs rewording [APECS Group Review, Germany]	Taken into account - Rewording

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Comment id	Chapter	From page	From line	To page	To line	Comment	Chapter Team Response
12640	CCB5	7	14	7	15	In the sentence "Positive correlation between rising sea levels and increasing residual salinity has been reported in the Delaware Estuary, USA (Ross et al., 2015), in the Ebro Delta, Italy (Genua-Olmedo ...)" the same comment as above should be applied regarding the location of the Ebro delta in Spain. [Alejandro Cearreta, Spain]	Accepted - Text revised
5920	CCB5	7	15	7	15	Ebro Delta is in Spain [Stefano Malatesta, Italy]	Accepted - Text revised
10578	CCB5	7	15	7	15	the Ebro Delta is in Spain, not Italy [APECS Group Review, Germany]	Accepted - Text revised
144	CCB5	7	18	7	19	There is also growing interest (e.g., work by Paolo Vineis's group) in implications of changing drinking water salinity for blood pressure and cardiovascular disease (low confidence) in Southwest Coastal Bangladesh. [Matthew Gribble, USA]	Rejected - Out of the scope of this cross-chapter box
10568	CCB5	7	18	7	21	☛ Limitations in drinking water supply due to salinization [...] ☛ should be the start of a 2nd paragraph of Cross-Chapter Box 5.3.5 Major Impacts on Populated Deltas. We have discussed 'effects on natural systems' previously. Now comes the 'impacts on human systems'. [APECS Group Review, Germany]	Taken into account - Text revised
10570	CCB5	7	32	7	33	Probably split that 1st sentence of Cross-Chapter Box 5.3.6 Risk and Cascades in two. [APECS Group Review, Germany]	Taken into account - Text revised
10572	CCB5	7	35	8	17	Cross-Chapter Box 5.3.6 Risk and Cascades is otherwise well-written I have found [APECS Group Review, Germany]	Accepted
516	CCB5	8	17	8	17	After "safer places." add "The international community is only now just beginning to consider climate restoration solutions that would reverse climate change. Whilst several of these appear to be non-starters, others offer distinct possibilities." [William Clarke, Australia]	Rejected - Proposal not supported by the peer-reviewed published literature
518	CCB5	8	28	8	28	After "specificities" add "and the degree of climate and ocean exacerbation expected and then experienced in a given time" [William Clarke, Australia]	Taken into account - Rewording
520	CCB5	8	54	8	54	Replace "than cost" with "than the cost" [William Clarke, Australia]	Accepted
22470	CCB5	8	5			There is absolutely nothing on the sequestration potential of LLIC. I am not an expert, but just for the mangrove potential of CO2 sequestration, this is worth mentioning, the litterature on blue carbon is numerous (and sorry if this comment is not at the appropriate place, and hopefully this question is adressed in the SROCC). [Timothée Ourbak, France]	Rejected - Beyond the mandate of this CCB, which focuses on risk and adaptation. Section 5.4 addresses responses in terms of adaptation, but not in terms of carbon sequestration and/or GHG mitigation.
10580	CCB5	8	7	8	17	Is it necessary to repeat the four categories here, or could they be more concisely summarised? [APECS Group Review, Germany]	Accepted - Deleted
5922	CCB5	8	24	8	24	I would add more examples of soft-eng measures [Stefano Malatesta, Italy]	Accepted - Completed
24306	CCB5	8	36	8	36	I guess you mean "Cross-Chapter Box 5.4.3" instead of 4.5.3 [Hans-Otto Poertner and WGII TSU, Germany]	Accepted
22652	CCB5	8	43	8	46	There is a white box on top of the text at the end of these lines. [Eva Kruemmel, Canada]	"Rejected - the author team could not address this comment as it is not understood"
16356	CCB5	8	40	8	40	"which then played as cannonballs " Suggest changing this wording to: "which then acted like cannonballs " [Inga Smith, New Zealand]	Accepted - Rewording
10582	CCB5	8	52	8	53	it would make sense for the list in parentheses to be ordered numerically, ie smallest to largest % or vice versa [APECS Group Review, Germany]	Accepted
10584	CCB5	8	57	9	2	what costs are associated with this approach? Is this faesible at present, or is this a future dream? Are they effective? What evidence is available? [APECS Group Review, Germany]	Taken into account - We mention they are at a very early or experimental stage; however, this is beyond of the scope of this CCB to assess these solutions' effectiveness

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Comment id	Chapter	From page	From line	To page	To line	Comment	Chapter Team Response
522	CCB5	9	22	9	22	Replace "too little" with "as yet too little" [William Clarke, Australia]	Accepted - Rewording
524	CCB5	9	0			Add after "political construct" the phrase "though many consider the Syrian diaspora as a direct result of climate change." [William Clarke, Australia]	Rejected - Proposal not supported by the peer-reviewed published literature
526	CCB5	9	43	9	43	Replace "citizens" with "the citizenry" [William Clarke, Australia]	Accepted - Rewording
528	CCB5	9	57	9	57	Replace "entailing" with "sometimes entailing" [William Clarke, Australia]	Taken into account - This paragraph had been deleted in the Second order Draft
22654	CCB5	9	4	9	29	It should also be noted that relocation is not only very costly, it is also likely to have high impacts on the well-being of the people who are relocated. In Alaska, there are several villages which likely have to be relocated exclusively due to the effects of climate change (in particular due to coastal erosion as a result of the loss of sea ice, sea-level rise and more severe and frequent storms). [Eva Kruemmel, Canada]	Taken into account - Restructuring of this section allowed for better highlighting Arctic examples
24308	CCB5	9	12	9	15	Can you provide details on when exactly this relocation in Papua New Guinea did occur? [Hans-Otto Poertner and WGII TSU, Germany]	Taken into account -- Text modified. There have been several attempts to relocate the Carteret Islanders since the 1960s due to land shortages, inundation and food insecurity, sea-level rise, and coastal erosion. Most of these efforts failed to succeed due to land disputes and the lack of support from the Papua New Guinea government (refs to be consulted: UNDP, 2016; Pascoe, 2015; Burkett, 2015; Edwards, 2013). In 2006, a new voluntary relocation program called Tulele Peisa or the 'Sailing the Waves on Our Own' was established by the chiefs and elders of Carteret Island as a response to the unsuccessful relocation attempts with neighboring islands (refs to be consulted: UNDP, 2016; Pascoe, 2015; Edwards, 2013). With the acquisition of land from the Catholic Diocese of Bougainville, it is expected that half of the population from the Carteret Islands would be relocated to the mainland of Bougainville by 2020 (refs to be consulted: UNDP, 2016; Ferris, 2011).

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Comment id	Chapter	From page	From line	To page	To line	Comment	Chapter Team Response
22700	CCB5	9	22	9	24	<p>There exists a compelling and growing body of empirical evidence that human migration due to climate change dynamics is an established fact and rapidly rising trend in various regions worldwide. With regards Cross-Chapter Box 5's citing of Kelman (2015) that the idea of "climate refugees" to be a political construct: it is certainly true that the usage of such a term or framing can be overly simplified. Similarly, it is true, as implied throughout this report and chapter, that regional migration trends, whether by island or continental territories, are not homogeneous with regards either societal (political warfare, economic and food security, livelihood, etc.) or environmental (e.g., tropical storms, hurricanes, droughts, and floods) dynamics and influences. Nonetheless, specific to the Pacific Islands, recent comprehensive fieldwork survey of Kiribati, Tuvalu and Nauru conducted under the auspices of the United Nations University Institute for Environment and Human Security (UNU-EHS) in 2015 suggests that economic and cultural motivations remain as drivers of migration, but importantly, environmental stress is also cited by survey respondents as a reason for migration. More than 70% of households feel that migration will be a likely response if agricultural production becomes more difficult or if sea level rise, flooding or saltwater intrusion worsens; and climate stressors were the second most important (23%) motivation for migration after work (41%) Education was third with (19%). In sum, climate change as a strong, interactive causal factor in out-migration "across species" cannot be ruled out at this time, whether in island or continental contexts. Indeed, a plethora of scientific evidence indicates both strong association and causality between climate change and migration-- not only for human species</p> <p>(https://www.sciencedirect.com/science/article/pii/S09622629807000601), but also involving complex system dynamics involving animal and plant species</p> <p>(http://science.sciencemag.org/content/333/6045/1024; https://www.ncbi.nlm.nih.gov/pubmed/26555281). [Chiang Lifang, USA]</p>	<p>Taken into account - Rewording of the initial paragraph now helps integrating this comment. Regarding the references cited in the comment, one is too old (2017; the mandate of this report is mainly to assess the post-AR5 literature) and the two others deal with natural species (while this CCB mainly deal with human societies ' adaptation).</p>
1682	CCB5	9	23	9	23	<p>"Hamilton et al. 2016)" add ref: Hamilton, L.C., K. Saito, P.A. Loring, R.B. Lammers & H.P. Huntington. 2016. "Climigration? Population and climate change in Arctic Alaska." Population and Environment 38(2):115–133. doi: 10.1007/s11111-016-0259-6 [Lawrence Hamilton, USA]</p>	Accepted
5924	CCB5	9	24	9	24	<p>Kelman's idea of "climate refugees as a political construct" may be not immediately understandable to "non-expert" "non-scholar" readers. Maybe it should be better clarified. [Stefano Malatesta, Italy]</p>	Accepted - Rewording
10586	CCB5	9	24	9	27	<p>"In Alaska..." Its not clear from the text whether the decision by the Newtok was driven by climate change, or other factors. Worth being explicit here [APECS Group Review, Germany]</p>	Taken into account - Sentence completed
22656	CCB5	9	31	9	35	<p>Again, human health and well-being needs to be mentioned here, as well. [Eva Krümmel, Canada]</p>	<p>Rejected - This sub-section aims to describe the various types of responses to adapt, and not the co-benefits ?? on other critical human dimensions (such as well-being and health, as you mention). A broader perspective is however introduced at the end of section 5.5 in this CCB.</p>

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12646	CCB5	9	46	9	47	In the sentence "Experiences are reported for German North Sea coast (Karrasch et al., 2017), Tenerife island (Hernández-González et al., 2016) and the Pacific region (Burnside-Lawry et al., 2017).", geographical location of the Tenerife Island should be indicated as follows "Experiences are reported for German North Sea coast (Karrasch et al., 2017), Tenerife island in the Atlantic Ocean (Hernández-González et al., 2016) and the Pacific region (Burnside-Lawry et al., 2017)." [Alejandro Cearreta, Spain]	Accepted
24310	CCB5	9	56	9	56	When writing « scholars », do you mean scientists? If yes, I suggest using the term « scientists » [Hans-Otto Poertner and WGII TSU, Germany]	Taken into account - This paragraph had been deleted in the Second order Draft
24312	CCB5	10	9	10	16	Who are "They"? The adaptation pathways? Please clarify [Hans-Otto Poertner and WGII TSU, Germany]	Taken into account - This paragraph had been deleted in the Second order Draft
10588	CCB5	10	12	10	12	"...the importance of thinking [about] adaptation and resilience in a very dynamic way..." - what does this mean? [APECS Group Review, Germany]	Taken into account - This paragraph had been deleted in the Second order Draft
10590	CCB5	10	27	10	27	It's not clear if the Climate Resilient Development Pathways are something that will be adopted, or if they are just a concept at present [APECS Group Review, Germany]	Climate-resilient development pathways are a concept that is used by IPCC since AR5, adopted by all three special reports and the AR6. It plays an important role for framing the assessment of future adaptation literature.
3538	CCB5	10	30	10	30	The "maladaptation" of climate change can also allude to the politicization of climate change as a partisan topic. [Michael Schwebel, USA]	Taken into account - This paragraph had been deleted in the Second order Draft
530	CCB5	11	43	11	43	Replace "experience sharing" with "experience and solutions sharing" [William Clarke, Australia]	Accepted
532	CCB5	11	53	11	53	Replace "options for adapting" with "options for solving or adapting" [William Clarke, Australia]	Accepted
24314	CCB5	11	15	11	19	Please provide reference(s) [Hans-Otto Poertner and WGII TSU, Germany]	Taken into account - Cross-reference with section 4.3.4.2 in Chapter 4 (i.e. assessment of risk of impacts for various geographies including urban atoll reef islands).
3540	CCB5	11	19	11	19	Sovereignty can also play into preparation and adaptation and the funds (or lack thereof) available for use is something else to consider when looking at vulnerability and variability. [Michael Schwebel, USA]	Rejected - Related sentence in the FOD had not been identified by the writing team.
10598	CCB5	11	27	11	30	Similarly, exposure to warming and acidification is not homogeneous worldwide, and hotspots of ecosystems and social systems should be priority areas for research and development (Pendleton et al, 2016). Reference : Pendleton et al. (2016). Coral Reefs and People in a High-CO2 World: Where Can Science Make a Difference to People? PLoS ONE. [Adrien Comte, France]	Taken into account
10592	CCB5	11	33	11	33	"Despite huge uncertainty..." - why is there such large uncertainty? What is the cause of this? How large is it? [APECS Group Review, Germany]	Taken into account
16358	CCB5	11	48	11	50	"may be relevant in still relatively natural coastal systems, they could be of limited effectiveness for Arctic retreating coasts or coastal megacities." This reads as if Arctic coasts are not still relatively natural coastal system, which I do not think was the authors' intention. Suggest changing this to: "may be relevant in still relatively natural coastal systems in temperate and tropical regions, they could be of limited effectiveness for Arctic retreating coasts or coastal megacities." [Inga Smith, New Zealand]	Accepted - Rewording

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1684	CCB5	14	57	14	57	Hamilton, L.C., B.C. Brown & R.O. Rasmussen. 2003. "West Greenland's cod-to-shrimp transition: Local dimensions of climatic change." Arctic 56(3):271–282. [Lawrence Hamilton, USA]	Rejected - Not post-AR5 publication, and beyond the scope of this CCB (rather relevant for Chapter 5)
1686	CCB5	14	57	14	57	Hamilton, L.C. 2007. "Climate, fishery and society interactions: Observations from the North Atlantic." Deep Sea Research II 54:2958–2969. doi: 10.1016/j.dsr2.2007.08.020 [Lawrence Hamilton, USA]	Rejected - Not post-AR5 publication, and beyond the scope of this CCB (rather relevant for Chapter 5)
1688	CCB5	14	57	14	57	Hamilton, L.C., K. Saito, P.A. Loring, R.B. Lammers & H.P. Huntington. 2016. "Climigration? Population and climate change in Arctic Alaska." Population and Environment 38(2):115–133. doi: 10.1007/s11111-016-0259-6 [Lawrence Hamilton, USA]	Accepted
1690	CCB5	16	28	16	28	Marino, E. 2015. Fierce Climate, Sacred Ground: An Ethnography of Climate Change in Shishmaref, Alaska. Fairbanks: University of Alaska Press. [Lawrence Hamilton, USA]	Accepted
1692	CCB5	18	63	18	63	USACE. 2009. Alaska Baseline Erosion Assessment: Study Findings and Technical Report. United States Army Corps of Engineers. http://www.poa.usace.army.mil/Library/Reports-and-Studies/Alaska-Baseline-Erosion-Assessments/ accessed 6/5/2018. [Lawrence Hamilton, USA]	Rejected - See answer to comment 1680.
22710	CCB5	127	50	127	57	Seasonal-to-decadal prediction / forecasting of distributional shifts is a particularly important planning tool, particularly with regards to distributional shifts of highly-mobile species. [Mark Payne, Denmark]	Alex -- Wrong number of page, so impossible for the CCB team to deal with this comment.