

#	Chapter	From Page	From Line	To Page	To Line	Comment	Response
1	6	0	0	0	0	Table 6.3: Add need for time series (probabilistic) information on extreme wind velocities and storm surges. (Wright, Richard, American Society of Civil Engineers)	Done
2	6	0	0	0	0	(Overall comment) The minor corrections and amendments specified in my first review were partly accepted and mostly not considered which is sure the prerogative of the authors. However, most regretful is that what I believe the major shortcoming of the chapter was ignored. That is lack of even mentioning leaving alone description of the existing (established and emerging) national disaster and/or emergency management systems. These function in many countries of the world and I am sure that at least an overview with classification (typology) of such systems should be provided in Chapter 6. I would appreciate its lead authors' reconsidering the comment above. (Porfiriev, Boris, Institute for Economic Forecasting, Russian Academy of Sciences)	Thank you for the comment. We have added in considerably more literature describing developed world national systems. Section 6.5.4 now includes a wider discussion of emergency management systems - which includes China - and section 6.3 draws on examples from Canada, UK and US. We have found it impossible to develop a typology of systems because of the diversity, though have now included text commenting on the relationships between systems and governance administrations.
3	6	0	0	0	0	Section 6.3.3.1.2 should cross-reference case study 9.2.13 and sections 5.3.2, 5.3.3.3 and Box 5.8. These all discuss similar issues. (Nicholls, Neville, Monash University, School of Geography & Environmental Science)	Cross reference of case studies has now been improved considerably.
4	6	0	0	0	0	-Moreover, in the next chapter (chapter 6), the description about top-down approaches, the advantages and disadvantages could be given. In the end of chapter 6, these 2 approaches could be compared and finally ranked. (Eslamian, Saeid, Isfahan University of Technology)	The top down versus bottom up approaches to adaptation planning are now discussed in depth in section 6.3 and highlighted through a figure too.
5	6	0	0	0	0	Chapter 6 is devoted to national systems for managing the risk from climate extremes. As an example of national-level documents it would be appropriate to mention two Russian documents: the Strategy of Actions in Hydrometeorology and Related Fields for the Period of up to 2030 (taking into account the climate change aspects) and the Climate Doctrine of the Russian Federation. A holistic approach to adaptation, mitigation and risk reduction is considered in Chapter 6. It should be pointed out that at the international level (Chapter 7) this approach is also applicable, although particular forms of its implementation will differ from those used at the national level. (RUSSIAN FEDERATION)	Thank you for the information. Overall there has been a considerable strengthening of literature from developed countries in many places throughout the chapter. A holistic approach is considered too in 6.6 though the emphasis we would have liked to have given to mitigation approaches alongside development, adaptation and DRR approaches has been made impossible by nature of other comments. Table 6.1 still makes this an explicit feature through discussion of 'win-win' approaches
6	6	0	0	0	0	Chapter 6 is well structured. But the key topics in the chapter need to be emphasized to make it clear while many duplicated discussion need to be condensed. The key messages may need to be highlighted at the end of chapters. For example, adaptation to uncertainty seems to be an important topic, and this chapter specifically mentioned this at the beginning. However, the latter contents have very little discussion on it. The whole chapter identified a number of important areas that are related to risk management of extremes and disasters, but lack of in-depth analysis of the causation of poor management due to national systems and coordination mechanism. Many different national systems are introduced. However, it would be useful to give a systematic comparison between centralized and decentralized, developed and least developed, small and large in terms of geographic size and so on, and this comparison can be related to the discussion of function of various sectors under different national systems. (CHINA)	Thank you, this is a helpful comment that we have taken into account as we have re-organised and rewritten the chapter. Hopefully we have now been clearer with our messages, the advantages and disadvantages about particular elements of national systems. However, we have not found sufficient literature to enable a detailed comparison between centralised and centralised, developed and developing and small and large. There is limited correlation between governance administration and effective of DRR as many other factors are involved. We have highlighted this issue as a knowledge gap, needing further analysis.
7	6	0	0	0	0	Five actors or stakeholders are described. However, not all of their functions are clearly elaborated in section 6.3. For example, the sub-section 6.3.3.1.2 mentions early warning systems, and it would be good to mention the roles and functions of the five actors for early warning. The readers might expect to know how national systems and various sectors work for basic adaptation to uncertainty, especially how the leading role of governments works concretely such as in agricultural insurance aspect and so on. (CHINA)	Thank you for this comment. We have tried to better represent how actors are split between function by the inclusion of figure 6.1 and being clearer about the role of certain actors in 6.3, 6.4 and 6.5. However, we have not been able to fully elaborate functions by actor given the complexity (and potential repetitiveness of this task)
8	6	0	0	0	0	UNISDR CITATIONS: Chapter 6 is heavily based on UNISDR products. In 40 pages of text, UNISDR is cited 80 times! There is nothing necessarily wrong with this, but the authors need to avoid simply repeating the assessment as previously given in UNISDR reports. In the same way as the IPCC AR4 provides a starting point for other chapters in this special report, previous assessments given in UNISDR reports should serve as a starting point for Chapter 6, and the original research/literature should be referred to where-ever possible, rather than citing UNISDR as a secondary source. (Stocker, Thomas, IPCC WGI TSU)	We have been through a process to evaluate each of the UNISDR references and to expand references where at all possible. In a number of cases, material produced by UNISDR is the most comprehensive and instructive on particular areas of policy and practice.

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9	6	0	0	0	0	FAQs: Appear as a series of 6 questions at the end of the chapter, not in usual IPCC format. There is considerable repetition (verbatim) from the main text of the chapters. Some of these FAQs are academic, and not FAQs from a public perspective. The most useful of these FAQs should be positioned within the chapter. See detailed comments on this. (Stocker, Thomas, IPCC WGI TSU)	FAQs have been substantially addressed and considerably shortened. There is now no repetition and this has been embedded in section 6.6
10	6	0	0	0	0	SCIENTIFIC UNCERTAINTY: Frequent vague statements made concerning the high/large uncertainty of climate/weather information, and general statements referring to uncertainty increasing with climate change. There is no problem with Chapter 6 referring to the fact that climate/weather information contains uncertainty, but Chapter 6 should not try to quantify this uncertainty or provide an assessment of how this uncertainty can be reduced. Reference should simply be made to Chapter 3 of SREX where scientific uncertainty is assessed appropriately in detail. (Stocker, Thomas, IPCC WGI TSU)	This has been taken care of.
11	6	0	0	0	0	REPETITION: In addition to the repetition produced with the FAQs, there is a repetition of an entire page on pages 31 and 32. (Stocker, Thomas, IPCC WGI TSU)	We think this must have been a problem in presentation as the chapter teams versions do not have this problem
12	6	0	0	0	0	REFERENCES: A lot of work is needed to complete accurate citations. Multiple citations are not distinguished by a, b, c. Some citations are not in reference list. (Stocker, Thomas, IPCC WGI TSU)	This has now been dealt with.
13	6	0	0	0	0	One of the most well-organized chapters of the report. Links to the science and impacts information, as well as the case studies, could be further strengthened. (International Federation of Red Cross and Red Crescent Societies (IFRC))	Thank you for the complement on organisation. We have tried to strengthen links to other chapters and to chapter 9 case studies. We have also tried to elaborate on case studies already included in chapter 6.
14	6	0	0	0	0	One aspect that we are missing in the report at large is climate information across timescales. There is relatively little discussion of how to interpret climate (change) trends (observations and projections) in light of planning for the coming few years, also in light of information about variability on other timescales, particularly seasonal and decadal. In our applied programs, this is where we have found a lot of entry points for better use of climate information in disaster risk management (including longer-term change dimensions). One of the key questions is how the information on trends relates to what we know about variability -- and in some cases predictable aspects of that variability. This applies to chapter 3, as well 5 and 6 (so we'll insert this comment for each of those chapters) (International Federation of Red Cross and Red Crescent Societies (IFRC))	This is a comment for the entire report. We would agree with this comment and have sought to strengthen the discussion of uncertainty. Chapter 6 contribution to the table in the SPM has hopefully helped to elaborate it too, but we have found that it has been difficult to capture this aspect and that timescales poses a continuing problem to the way material has been presented here.
15	6	0	0	0	0	Decisionmakers should be aware explicitly and directly from SREX that CCA is indeed in most cases the Disaster Risk Reduction when we are speaking about weather or climate events (hydrometeorological hazards); CCA it is not a new and a different activity indeed (it is basically a change of terminology). DRM includes also geohazards, therefore CCA is a specific intervention action of risk reduction regarding climate events. Of course, it is so important to mention in the SREX the differences between on corrective and prospective risk reduction; i.e. between the reduction on existing and stationary risks and new possible risks including the CC as a factor in the exacerbation of the present climate hazards. (Cardona, Omar, Universidad Nacional de Colombia)	The chapter team has considered this comment. We are confident that the framing of DRM and adaptation that we have in the chapter is the right one. This is an issue that cuts across SREX and is not a comment specifically related to this chapter.
16	6	0	0	0	0	Decisionmakers should understand clearly from SREX that the reduction of the present and future disaster risks related to climate is basically making interventions on vulnerability (socio-economic, institutional ...) and on the exposure in prone areas, by one side, and by environment management and CC mitigation (reduction of gases) on the other side (intervention on hazards). The messages to decisionmakers should be simple and clear. If the emphasis were to vulnerability and exposure and less to extremes (hazards), they should be a confirmation that the hazards are the origin of risk and are important but they are not the main driver of disaster risk at present and in the future, notwithstanding the CC. (Cardona, Omar, Universidad Nacional de Colombia)	Noted.
17	6	0	0	0	0	This chapter is very good, excellent in some parts. It is well directed towards information for action. It has however some editorial errors that can be corrected easily. I addressed some of them below as part of the minor concerns. In addition, the chapter has a good balance in the viewpoints from the developed and developing countries (Barros, Vicente, IPCC WGII TSU)	Many thanks for the compliments on the strengths of the chapter. We have been through the chapter with a strong editorial lense and hope that it has been improved in this regard

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18	6	0	0	0	0	Le chapitre fournit un état des lieux et des appréciations qui sont le reflet de toutes les déclarations et des efforts de mobilisation à la suite de la DIPCN et de l'adoption du framework de Hyogo. Cette compilation est volumineuse, - chacun y trouve son compte- mais ne fait guère avancer vers l'harmonisation : le niveau national est le niveau clé en raison de l'indépendance des Etats en matière de sécurité intérieure. Le système de management des risques est décrit classiquement en commençant par les acteurs (secteur public, secteur privé, associations, agences bilatérales ou multilatérales, organismes scientifiques) et en poursuivant par les fonctions : planning, stratégies, pratiques, ce qui est un ordre bizarre. La troisième partie a pour titre Aligning National Disaster Risk Management Systems to the Challenge of Climate Change and Development est quelque peu en contradiction avec le ton beaucoup réservé des chapitres 2 à 4 sur la prévisibilité et l'importance des événements extrêmes suscités par le changement climatique. Plusieurs questions essentielles de la gouvernance nationale ne sont pas traitées : 1° L'élargissement du domaine de la RRC mentionnée dans OG1. La tendance est irréversible mais par quel processus effectif ? 2° Une fois de plus la gestion des secours est quasiment ignorée ; or, particulièrement dans les Etats pauvres c'est elle qui structure la RRC 3° c'est au niveau national qu'on organise les choix politiques sur le risque acceptable en fonction des valeurs de solidarité, de justice, de croissance, de liberté 4° les progrès technologiques d'Early warning, des alertes, de la diffusion des informations de crise par les réseaux, les secours... Les sociétés changent plus que les aléas, fussent-ils extrêmes !!! 5° L'organisation du contrôle du respect des réglementations : quels responsables, avec quels outils? 6° les arbitrages dans l'aménagement du territoire (BOURRELIER, PAUL-HENRI, AFPCN)	Many thanks for this insightful comment. We appreciate the positive remarks about the breadth of the chapter and your observations on the shortcomings. We recognise that the chapter is presented in a deliberately normative fashion and that this is a departure from previous chapters. The intention is to evaluate the potential of a risk reduction-centric approach for advancing adaptation to climate change and hence the 'response mode' is somewhat downplayed (though is featured explicitly in 6.5.4) and major shortcomings of particular systems are not given the prominence that they maybe deserve. However, we have strengthened the way we recognise the diversity and gaps in existing national systems and have sought to strengthen the literature and the assessment in many of the areas that you highlight.
19	6	0	0	0	0	Bibliography Add : Bourrelrier P-H., de Vanssay B et Deneufbourg G. 2000 : Catastrophes naturelles, le grand cafouillage, Osman-Eyrolles, Paris. CGEDD (Conseil Général de l'Environnement et du Développement Durable) 2010 Tempête Xynthia retour d'expérience, évaluation et propositions d'action, Ministère de l'Environnement, du Développement Durable, des Transports et du Logement, Paris. ONERC (Observatoire National d' Etude et de recherche sur le Changement Climatique) 2009 Changement climatique, coût des impacts et pistes d'adaptation, rapport au Premier ministre et au Parlement, La Documentation française, Paris. (BOURRELIER, PAUL-HENRI, AFPCN)	We are not clear where this reference should be considered.
20	6	0	0	0	0	The analysis would benefit from a comparison of an examination of some schemes of mitigation/insurance. Ideally, there would be a good practice guide, or some general guiding principles. (FRANCE)	The discussion on Insurance is cutting across chs. 5,6,7, and 9. In ch. 9 we discuss certain cases and cross-reference with ch.6
21	6	0	0	0	0	The report refers to the Arrow-Lind Theorem (p.20 and p.32) to support the idea that governments could spread large risk over individuals and behave as risk-neutral decision makers. The Arrow-Lind Theorem holds in a setting without any background risk, or more generally in a setting where the background risks (i.e. the other risks faced by economic agents) are not correlated with the risk for which a decision has to be made (here climate- related prevention or adaptation plans). This assumption does not make sense. If weather- related losses are large because the global warming problem is severe, then it is most likely that the return on financial assets and economic growth will be low, hence a positive correlation between climate-related risks and income per capita. Such a positive correlation justifies that governments act as risk averse agents in their disaster risk management strategy. (FRANCE)	Added text in 6.4.3 as follows:Furthermore, extreme events, associated with large losses, may lead to important economic spillover effects (see 4.6) finally leading to depressed incomes and reduced ability to share the losses.
22	6	0	0	0	0	The report comments on the role that government may have in the development of regulated disaster insurance (p.31). However, this role goes through different channels with different targets, and this diversity is not distinguished in the report. Governments may guarantee some form of reinsurance (as in France), or it may organize insurance through public insurers (as in Switzerland or Spain), it may regulate price to prevent adverse selection (as in France) or organize some form of coordination between insurers and local communities (like the Community Rating System of the National Flood Insurance Program in the US)... The pros and cons of these mechanisms depend on various criteria, including the solvency and the incentive power of insurance mechanisms. The report does not emphasize the fact that there is an interaction between the source of financing on one side (e.g., ex ante through insurance or ex post through public expenditures financed by taxation) and the incentives for prevention on the other side. In addition, many prevention decisions are made by local governments. Analyzing the interaction between the decision process at the local level and the disaster risk financing of insurance mechanisms mechanism is of utmost importance because local governments are key players for building zone decisions. (FRANCE)	We added text to this section on the diversity of insurance systems.

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23	6	0	0	0	0	Something which is covered throughout the chapter is that the real challenge in adaptation is not about planning but is about implementation. This should be highlighted in the summary (Hillier, Debbie, Oxfam)	We have sought to strengthen material on implementation in chapter 6, but much of the community centred implementation discussion is in chapter 5. We agree that implementation is a challenge and too much emphasis is likely placed on planning processes. These are nonetheless important and are often co-dependent with implementation efforts.
24	6	0	0	0	0	The first parts of Chapter 6 are strong but they do not come together as well as they could in Section 6.4. Editing is needed throughout, and improvements could be made by strengthening consistency within the chapter and with other chapters, and removing duplication with Chapter 5 (which defines local in a broad sense that includes subnational (state and provincial) governments). The Frequently Asked Questions are a good idea but need to be shortened to be effective. Adding figures would also be helpful. (CANADA)	FAQs have been shortened, figures have been added, closer appreciation is given to synergies with chapter 5 and material has been made clearer, with a broader range of references. Thank you for the comment though - we agreed with your analysis
25	6	0	0	0	0	For much of the chapter, in particular section 6.3, there is a strong emphasis on issues within developing countries, with relatively few examples or lessons learned from developed countries. It would be useful to state whether this is to provide a focus on the most vulnerable countries, or if it is simply a reflection of the available literature. (CANADA)	We have considerably strengthened referencing to developed country case studies throughout and especially in the old section 6.3, which is now spread between 6.3, 6.4 and 6.5,
26	6	0	0	0	0	We recommend including social protection as a strategy that can contribute to management of extreme weather risks. Suggested text: "Social protection mechanisms (including cash/asset transfers, and public works) are important components of disaster risk management and climate change adaptation. Social protection programmes can support vulnerable populations, allowing them to meet basic needs in post-disaster contexts and enhance resilience to future rapid-onset disasters and long-term environmental change. Public works can have a very important role in reducing and mitigating the risk of climate change by generating environmentally sound public goods. Some of the assets created can increase the resilience of the communities, such as water storage, embankments. Others projects such as afforestation, soil conservation projects, can help protect the environment from the adverse impact of climate change. Soil conservation projects carried out semiarid areas have been effective in slowing down the desertification, erosion and generating new forest areas." This point can be strengthened with the following examples: "In Bangladesh, the Food for Work (FFW) has been operating since 1975 as counter-cyclical workfare program providing the rural poor with employment opportunities during lean (dry) season, mostly in construction and maintenance of rural roads, river embankments, and irrigation channels." (Carlo del Ninno, Kalanidhi Subbarao and Annamaria Milazzo (2009) 'How to Make Public Works Work: A Review of the Experiences', World Bank) "India is one of the few countries in the developing world to have implemented public works as early as 1950's, shortly after independence, with the main objective of providing temporary employment during the agricultural slack season. Unlike in some African countries, India over time developed in-house capacity to implement the program, so that when hit by a major drought, its program was ready to expand. This program came in handy when its country was hit by a massive drought in 1987, often known as the drought of the century. The program protected the poor from severe consumption shortfall (Rao, Ray, and Subbarao, 1988)." (Carlo del Ninno, Kalanidhi Subbarao and Annamaria Milazzo (2009) 'How to Make Public Works Work: A Review of the Experiences', World Bank) "Under the famous Maharashtra Employment Guarantee Scheme, roads and infrastructure were the main activities. Maharashtra has a huge dry and arid zone. Focusing on all types of irrigation structures substantially increased the areas under irrigation for a second crop, thus enhancing the scope for greater second round employment effect (Subbarao, 2003)" (Carlo del Ninno, Kalanidhi Subbarao and Annamaria Milazzo (2009) 'How to Make Public Works Work: A Review of the Experiences', World Bank) "In Ethiopia, most of the activities under the PSNP are focused on soil and water conservation activities (Table 1) reflecting the needs of the poor agricultural communities. The works have already brought demonstrable benefits to the communities in the form of environmental transformation. For example, improved water conservation has led to increased agricultural productivity and an increase in groundwater recharge such that dry springs have started to flow again. In addition, the communities have enhanced income generation from area closure, and improved access to markets, education and health facilities (Grosh et al, 2008)." (Carlo del Ninno, Kalanidhi Subbarao and Annamaria Milazzo (2009) 'How to Make Public Works Work: A Review of the Experiences', World Bank) (World Food Programme (WFP))	Social protection is discussed in passing in ch.6. More detail can be found in chapter 5 (see table 5.4) and more broadly in Chapter 8.
26.2							
27	6	0	0	0	0	The chapter needs editing; the style is not consistent throughout the chapter. Use shorter sentences. (NETHERLANDS)	The chapter has been edited and we are confident that this aspect has improved

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28	6	0	0	0	0	In general I would expect more references to examples to make the chapter more attractive, currently it is very theoretic. For instance use information from country plans and strategies to adapt to climate change, and how this is organised. For instance in the UK, Netherlands and Finland. (NETHERLANDS)	More literature has been referenced from developed countries to strengthen links to these kind of examples. We hope that this has made the chapter less theoretical, though we realise that there is a normative basis to the way the chapter is presented
29	6	0	0	0	0	The chapter appears to consider there is one "best option" for all countries in the world. It would be helpful to explain that in different countries, there are different roles and strengths for the different stakeholders. For instance, in the constellation of the USA different actors should undertake different actions, compared to for instance Norway or China. (NETHERLANDS)	The chapter does present literature based on a normal understanding of national systems for tackling disaster risk and adaptation to climate change. However greater effort has been made to explain the diversity in different approaches and the varying role of actors depending on the wide range of factors influencing the shape of such systems
30	6	0	0	0	0	Section 6.5 is very well written and makes clear why this chapter is written. (NETHERLANDS)	Thank you very much for the kind comment
31	6	0	0	0	0	Proposed literature to be included: 6.2.3 Red Cross Climate Guide (2007) www.climatecentre.org/downloads/File/reports/RCRC_climateguide.pdf (NETHERLANDS)	Thank you for proposing literature
32	6	0	0	0	0	Definition of vulnerability is different from AR4, explain (NETHERLANDS)	This issue is now handled in the SREX glossary and effort has been placed to ensure consistency throughout the report.
33	6	0	0	0	0	References: 1) Allen, Katrina M. 2006. Community-based disaster preparedness and climate adaptation: local capacity- building in the Philippines. Disasters 30 (1):81-101 2) Bankoff, G., Frerks, G. and Hilhorst, D. eds. 2004. Mapping Vulnerability. Disasters, Development and People. Earthscan Publications, London. 3) Bak, P. (1996). How Nature Works. The science of Self-Organized 4) Bonanno, G. A. and Galea, S. 2007, What Predicts Psychological Resilience After Disaster? The Role of Demographics, Resources, and Life Stress. Journal of Consulting and Clinical Psychology, Vol. 75, No. 5, 671–682 5) Bull-Kamanga, L., K Diagne, A Lavell, E Leon, F Lerise, H MacGregor, A Maskrey, M Meshack, M Pelling, H Reid, D Satterthwaite, J Songsore, K Westgate and A Yitambe, From everyday hazards to disasters: the accumulation of risk in urban areas, Environment & Urbanization 15 (1) April 2003. 6) Dijk, Han van & Mirjam de Bruijn, Arid ways: cultural understandings of insecurity in Fulbe society, Central Mali. Ph D dissertation, Wageningen University. 7) Hoffman, S.M., and Oliver-Smith A., eds. 2002. Catastrophe and culture: The anthropology of disaster. Santa Fe: School of American Research Press. Okay, N., 2006. Damage and Reconstruction Needs Assessment in Turkey, WBI, 8) Kirschenbaum, A. (2004), Chaos Organization and Disaster Management, New York: Marcel Dekker. 9) Manuta, J and Lebel L.. Climate change compounds the existing challenges of managing floods. http://www.gechs.org/downloads/holmen/Manuta_Lebel.pdf 10) Tunstall, S., Tapsell, S., Green, C., Floyd, P. and George, C. The health effects of flooding: social research results from England and Wales. 2006. J Water Health. Sep;4(3):365-80. (Warner, Jeroen, Wageningen University)	Many thanks for highlighting these additional references. We have shared these comments with other chapters - particularly as some of these references are more suited to other chapters - such as 5 on local issues and chapter 4 on impacts for example.
34	6	0	0	0	0	We suggest that you avoid abbreviations like CCA which is not in common use. If IPCC introduces new abbreviations in this report it should be considered carefully. E.g. in this draft CCA is used in ch 6 and 7 and not in the rest of report. We doubt that the abbreviation CCS for Climate change adaptation is useful and recommend that the term is written in full instead: climate change adaptation. Rationale: We should try to avoid too many abbreviations and CCA is so far not commonly used and was not used in AR4. The CCA abbreviation is also used in several other meanings: Climate change agreement, climate change action, Climate Change Australia etc. (NORWAY)	We have removed use of the acronym CCA now and replaced with 'adaptation to climate change'.
35	6	0	0	0	0	In general there is a strong need for more illustrations in this chapter. (NORWAY)	Figures have now been added to the chapter to help elaborate particular points.
36	6	0	0	0	0	This chapter has an unfinished feel, with sections (some partially complete) pasted together without editing. The author team needs to read the entire chapter, eliminating redundancies and overlaps, and eliminating inconsistencies and contradictions. There are several places (e.g. pg 5, line 6) where notes were inserted for follow-up before the chapter was submitted and that didn't happen. (IPCC WGII TSU)	Thank you for highlighting these aspects. We have now been through a thorough editorial process and have hopefully addressed these oversights.
37	6	0	0	0	0	Cross-chapter Consistency: Disaster Risk Management v. Disaster Risk Reduction. It should be ensured that usage of the terms disaster risk management and disaster risk reduction, throughout this chapter, is consistent with the definitions provided in the glossary and described in chapter 1 and with the usage in other chapters of the SREX. (IPCC WGII TSU)	We have been through the chapter and analysed the use of these terms in some detail. We are confident that we have the right formulation, consistent with the glossary.

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38	6	0	0	0	0	Use of calibrated uncertainty language: The author team has effectively used confidence assignments in the chapter's Executive Summary. Throughout the chapter, evaluations of evidence and agreement are provided for assessed topics, and to the extent possible, the author team should also characterize these evaluations and resulting assessment findings with calibrated uncertainty language, especially summary terms for evidence and agreement and levels of confidence, per the AR5 Guidance Note on Treatment of Uncertainties. Use of calibrated language would help further delineate the author team's assessment findings in sections reviewing available literature, and such use of calibrated language would also enable the reader to understand more fully and compare more systematically the state of knowledge across statements. (IPCC WGII TSU)	This has been taken care of.
39	6	0	0	0	0	Clarity of writing: The author team needs to carefully review the writing in all sections. In many cases, sentences as currently worded contain typos and errors that make interpretation of the author team's intended meaning difficult. Some sections appear to have been written by non-native English speakers and could be greatly strengthened by a careful read by a native speaker. (IPCC WGII TSU)	Thank you for the comment. We have sought to address this in a comprehensive editorial process.
40	6	0	0	0	0	Reduction of redundancy within the chapter. The chapter needs to be carefully edited to tighten discussions and sections where redundancy of content occurs. (IPCC WGII TSU)	Thank you for the comment. We have sought to address this in a comprehensive editorial process.
41	6	0	0	0	0	Disaster risk management v. disaster management. In this chapter, the term "disaster management" is sometimes used to describe disaster emergency responses directly related to coping with disasters, rather than longer term disaster risk management. Use of "disaster management" should be reviewed to ensure ambiguities and confusion for the reader are avoided. In some cases, it would be preferable to more explicitly specify the scope of "disaster management," as different from "disaster risk management" (IPCC WGII TSU)	We have sought to confirm the use of different terms and ensure that we are being as clear as possible. The SREX glossary should help in this regard.
42	6	0	0	0	0	A key goal for the SREX is integration of climate change adaptation and disaster risk management, across sectors and regions. This chapter in many sections is a patchwork of the interests of particular perspectives, with insufficient assessment of the breadth and depth of the issues covered. (IPCC WGII TSU)	We do not believe this to be true. This chapter covers an extremely broad range of literature from both communities and is compiled by experts from across these communities. However, effort has been made to strengthen the use of adaptation literature
43	6	1	0	0	0	ES: The executive summary plays down or at least does not sufficiently underscore the role of national governments which is clearly depicted and analyzed throughout the chapter itself. There is only one or two statements for each section. However, some of them like 6.2 may deserve more than one as well in section 6.3 for instance, page 12, line 53 on: "It is important that uncertainty over future climate change risks not become a barrier to climate change risk reduction actions. In cases where climate change uncertainties will remain high, countries may choose to increase or build on their capacity to cope with uncertainty, rather than risk maladaptation from use of ambiguous impact studies or no action (McGray et al, 2007; Lu, 2009) (Barros, Vicente, IPCC WGII TSU)	We have now restructured and made sure that national governments are now featured more prominently in the executive summary.
44	6	1	0	0	0	How is the difference between weather and climate defined? These words seem to be used when the same is meant by the authors. And how do climate and weather events differ (page 1)? (NETHERLANDS)	The language has been modified to reflect the exact language in Chapter 3, which discusses the difference between weather and climate, we do not consider this to be an appropriate topic for discussion in Chapter 6.
45	6	2	0	0	0	Executive Summary: Inter-linkages with the thematic-related chapters 5 & 7 are missed. Where are the synergies between local, national and international efforts? (GERMANY)	Interlinkages are now mentioned at the opening of the executive summary, but new material is now featured on interlinkages as a chapeau to 5/6/7 and in the conclusion to chapter 7
46	6	2	1	45	1	Overall this chapter is very readable, with good structure and flow. It presents conclusions in a useful way at the start then backs them up in logical sequence. It should be used as a model for other chapters that do not currently follow this flow. (Brooke, Rov, United Nations)	Thank you very much for the kind comments
47	6	2	9	0	0	Throughout the Executive Summary, wherever calibrated uncertainty language is used (e.g., "high confidence") per the AR5 Guidance Note on Treatment of Uncertainties, it should be italicized. (IPCC WGII TSU)	This has now been modified
48	6	2	11	2	12	It would be preferable to be explicit about the "higher fatalities and higher direct economic losses"--higher overall for recorded disasters, higher for hazards of equivalent magnitude, or both? In addition, are higher direct economic losses overall intended here, or higher direct economic losses relative to GDP? Later parts of the paragraph suggest the latter. (IPCC WGII TSU)	We have decided to remove this paragraph as this is included in chapter 4. The exclusion of this material from chapter 6 helps to reduce overlap/duplication
49	6	2	11	2	15	Low and middle-income countries are especially vulnerable and experience higher fatalities and higher direct economic losses... compared to what? High-income countries?! (GERMANY)	We have decided to remove this paragraph as this is included in chapter 4. The exclusion of this material from chapter 6 helps to reduce overlap/duplication

#	Chapter	From Page	From Line	To Page	To Line	Comment	Response
50	6	2	11	2	28	The first paragraph of the Executive Summary is highly overlapping with the first introductory paragraph on page 4, lines 3-20. It would be preferable for the Executive Summary to more succinctly summarize information presented on page 4, rather than repeating it. (IPCC WGII TSU)	We have decided to remove this paragraph as this is included in chapter 4. The exclusion of this material from chapter 6 helps to reduce overlap/duplication
51	6	2	11	3	52	The Executive Summary would be stronger if it were more concise and followed the model of other chapters in limiting the supporting text. The bullet points under the third bolded statement are particularly useful. (CANADA)	Now restructured in this way
52	6	2	12	2	12	...higher fatalities and higher direct economic losses... must be "relative economic losses"? Compare to page 2, line 17: "While in absolute terms, the direct economic losses from disasters are greater in high-income countries." (GERMANY)	We have decided to remove this paragraph as this is included in chapter 4. The exclusion of this material from chapter 6 helps to reduce overlap/duplication
53	6	2	12	2	12	"Low and middle income countries experience higher direct economic losses" is misleading. On lines 17-19, they clarify that this is not in absolute terms, but in terms of % of GDP. The bolded Line 12 should be similarly clarified. (UNITED STATES OF AMERICA)	We have decided to remove this paragraph as this is included in chapter 4. The exclusion of this material from chapter 6 helps to reduce overlap/duplication
54	6	2	13	2	13	The use of "can" in combination with "medium confidence" is ambiguous. It would perhaps be preferable to adjust the sentence's wording so that the confidence assignment can be unambiguously interpreted--e.g., "disasters form barriers. . .(XXX confidence)" where "XXX" is the level of confidence. (IPCC WGII TSU)	We have decided to remove this paragraph as this is included in chapter 4. The exclusion of this material from chapter 6 helps to reduce overlap/duplication
55	6	2	13	2	15	Redundancies between this sentence and the first sentence should be reduced. The qualification here "even when exposed to hazards of similar magnitude" increases specificity and clarity for the reader and perhaps should be moved to the first sentence. (IPCC WGII TSU)	We have decided to remove this paragraph as this is included in chapter 4. The exclusion of this material from chapter 6 helps to reduce overlap/duplication
56	6	2	16	2	16	It seems the word "highest" would be preferable to "concentrated" here. (IPCC WGII TSU)	We have decided to remove this paragraph as this is included in chapter 4. The exclusion of this material from chapter 6 helps to reduce overlap/duplication
57	6	2	17	2	19	This sentence in part contradicts the first sentence of the paragraph and indicates that the first sentence presumably refers to "higher direct economic losses relative to annual GDP." The two sentences must be harmonized, potentially through appropriate qualification of the direct economic losses described in the first sentence. (IPCC WGII TSU)	We have decided to remove this paragraph as this is included in chapter 4. The exclusion of this material from chapter 6 helps to reduce overlap/duplication
58	6	2	20	2	20	The introduction of the metric used to characterize losses is a bit abbreviated. It would be preferable to provide a more expanded description (e.g., a 1 sentence description instead of a parenthetical mention) in the Introduction version of this paragraph (i.e. on page 4, lines 3-20). (IPCC WGII TSU)	We have decided to remove this paragraph as this is included in chapter 4. The exclusion of this material from chapter 6 helps to reduce overlap/duplication
59	6	2	21	2	21	It should be clarified here what the "average costs" are averaged over. Over all disasters in such countries, over all cyclones that make landfall, etc.? (IPCC WGII TSU)	We have decided to remove this paragraph as this is included in chapter 4. The exclusion of this material from chapter 6 helps to reduce overlap/duplication
60	6	2	21	2	22	Concerning losses in St Lucia (e.g. GDP), please, check consistency with Chapter 4 information. (FINLAND)	We have decided to remove this paragraph as this is included in chapter 4. The exclusion of this material from chapter 6 helps to reduce overlap/duplication
61	6	2	23	2	23	It would be helpful to clarify how the phrase "even forcing people below the poverty line" plays out in developed versus developing countries. Does this sentence overall apply to both developed and developing countries? Please clarify the types of countries for which this statement applies. Also, it would be helpful to specify how "poverty line" is being defined here. (IPCC WGII TSU)	We have decided to remove this paragraph as this is included in chapter 4. The exclusion of this material from chapter 6 helps to reduce overlap/duplication
62	6	2	25	2	28	This sentence presumably describes developing or small exposed countries, but the scope of the sentence is not clearly specified. Please clarify the types of countries for which this statement applies. (IPCC WGII TSU)	We have decided to remove this paragraph as this is included in chapter 4. The exclusion of this material from chapter 6 helps to reduce overlap/duplication
63	6	2	26	2	28	We don't only care about people's ability to respond to disasters, but also about their inability to adequately prepare for and reduce risks. The "reasons" listed here would apply to both disaster preparedness and response. (UNITED STATES OF AMERICA)	We have decided to remove this paragraph as this is included in chapter 4. The exclusion of this material from chapter 6 helps to reduce overlap/duplication
64	6	2	31	0	0	Why differential and not different? (Simiu, Emil, National Institute of Standards and Technology)	We are comfortable that 'differential' refers to actor's pursuing functions or proceeding differently or at a different rate
65	6	2	31	2	31	Communication would be clearer if you define what you mean by society, actors, agency, etc. Readers from a broad range of backgrounds will read this chapter. (IPCC WGII TSU)	Actors has now been clarified, 'levels of society' has been removed and clarified in subsequent text. We are happy with the use of agency to describe a government department/entity.
66	6	2	40	2	41	It is not clear that this bold sentence represents an assessment finding for which calibrated uncertainty language is necessary. (IPCC WGII TSU)	We have removed the confidence statement

#	Chapter	From Page	From Line	To Page	To Line	Comment	Response
67	6	2	45	2	45	It would be preferable to be more specific about what is meant by "the level of certainty about the future." Is the intended meaning uncertainty about future climate change outcomes, impacts due to climate change, or future actions of relevant actors? (IPCC WGII TSU)	We have removed reference to 'the level of certainty about the future'
68	6	2	48	2	50	"more likely" is used here colloquially, not as part of the calibrated IPCC uncertainty language. Please rephrase. (Stocker, Thomas, IPCC WGI TSU)	We have removed 'more likely' and rephrased
69	6	2	48	3	18	The author team should consider characterizing these conclusions with calibrated uncertainty language, especially summary terms for evidence and agreement and levels of confidence, per the AR5 Guidance Note on Treatment of Uncertainties. Use of calibrated language would enable the reader to understand more fully and compare more systematically the state of knowledge across statements. (IPCC WGII TSU)	This has now been attended to with uncertainty language included and italicized
70	6	2	50	2	53	Please rephrase sentence. What is this text supposed to mean? (Rock, Joachim, Johann Heinrich von Thuenen-Institute)	This has now been rephrased to improve clarity
71	6	2	50	2	53	The language lacks clarity. The following wording is suggested: Efforts to systematically manage risk are more likely to be successful if development-risk reduction-risk management are considered in an integrated manner and if risk considerations are integrated into economic development as well as environmental and disaster management. (Radunsky, Klaus, Umweltbundesamt GmbH)	Thank you for offering text. We agree that this sentence lacks clarity and it has now been rephrased using the suggestion as a guide.
72	6	2	50	2	53	This sentence should be revised to clarify its intended meaning. (IPCC WGII TSU)	This has now been rephrased to improve clarity
73	6	3	0	4	0	The executive summary plays down or at least does not sufficiently underscore the role of national governments which is clearly depicted and analyzed throughout the chapter itself. There is only one or two statements for each section. However, some of them like 6.2 may deserve more than one as well in section 6.3 for instance, page 12, line 53 on: It is important that uncertainty over future climate change risks not become a barrier to climate change risk reduction actions. In cases where climate change uncertainties will remain high, countries may choose to increase or build on their capacity to cope with uncertainty, rather than risk maladaptation from use of ambiguous impact studies or no action (McGray et al, 2007; Lu, 2009). (Barros, Vicente, IPCC WGII TSU)	The executive summary has now been reorganised and refocused. We feel that the role of national government is now sufficiently featured.
74	6	3	1	3	1	The summary plays down or at least does not sufficiently underscore the role of national governments which is clearly depicted and analysed throughout the chapter itself. (CARLINO, HERNAN, UNIVERSIDAD TORCUATO DI TELLA)	The executive summary has now been reorganised and refocused. We feel that the role of national government is now sufficiently featured.
75	6	3	4	3	4	In contradiction with lines 53 and 54, page 4. It should be expressed in relative terms, as in 9 to 11 below. (CARLINO, HERNAN, UNIVERSIDAD TORCUATO DI TELLA)	We discuss both the absolute and relative burdens as both are of interest.
76	6	3	4	3	4	"and higher economic losses ". In contradiction with lines 53 and 54, page 4. It should be expressed in relative terms, as in line 9 to 11 below. (Barros, Vicente, IPCC WGII TSU)	We discuss both the absolute and relative burdens as both are of interest.
77	6	3	6	0	0	Delete one full stop (GERMANY)	Complete
78	6	3	10	0	0	Seems inconsistent with other part of the chapter (the Mexican Fund has failed since the country has been obliged to turn towards the capitalist reassurance companies). (BOURRELIER, PAUL-HENRI, AFPCN)	Examples have now been removed
79	6	3	12	3	12	Disaster risk insurance and the kind of reserve funds described here are far from "common", so we would delete that word. (UNITED STATES OF AMERICA)	Common' has been deleted
80	6	3	18	3	18	It is unclear whether the reference to chapter 6.3 refers only to lines 15 to 18 on page 3 or to the text starting at page 2, line 40. (Radunsky, Klaus, Umweltbundesamt GmbH)	This reference has now been removed to improve clarity
81	6	3	20	3	22	It would be helpful to specify if these increasing impacts are due more to trends in vulnerability and/or exposure, to trends in hazards, or to both. (IPCC WGII TSU)	This material is dealt with in other parts of the report and we feel it is not appropriate to further discuss in the executive summary
82	6	3	20	3	27	This point would be more effective if it stressed the positive and noted the negative. To achieve this, the bolded statement would note that better coordination, etc, can significantly reduce impacts, and the supporting text note that actions to date remain insufficient. (CANADA)	This has now been addressed and the statement reformulated.
83	6	3	29	3	43	The conclusions of chapters 2 to 4 stressed the vulnerability as the dominant factor, not the hazards. See also OG4. (BOURRELIER, PAUL-HENRI, AFPCN)	The text has been modified to recognise the importance of dynamics and vulnerability and exposure
84	6	3	30	3	32	The use of "therefore" seems to imply that this sentence follows from the previous sentence, when in fact it appears to be a conclusion of the author team. Given the assignment of calibrated language for the sentence, it seems preferable to drop "therefore" and thereby more clearly present the sentence as a finding of the author team. (IPCC WGII TSU)	therefore' now removed
85	6	3	31	3	31	If the focus is only on responding, then there is a significant missed opportunity for proactive actions at prevention. (IPCC WGII TSU)	Language has been modified to focus on the 'proactive' component.

#	Chapter	From Page	From Line	To Page	To Line	Comment	Response
86	6	3	32	3	34	If the term "limited evidence" is being used here, as it seems it might be, per the AR5 Guidance Note on Treatment of Uncertainties, the term should be italicized. Also, it seems clearer to use the word "effects" instead of "impacts" given that <i>disasters involve impacts of extreme events. (IPCC WGII TSU)</i>	This has been italicized and ' effects' has replaced 'impacts'
87	6	3	34	3	35	Studies are available that conclude that there is no climate change signal in losses of natural hazard impacts, for instance: Bouwer 2011 http://journals.ametsoc.org/doi/abs/10.1175/2010BAMS3092.1 (NETHERLANDS)	This statement has now been removed from the executive summary
88	6	3	34	3	37	Executive summary: "While the risk management literature indicates concern that climate change is increasing the frequency and magnitude of hazards, is increasing uncertainty and may be responsible, at least in part, for upward trends in disaster impacts, adaptive actions to these changes still tend to remain normative" . SREX contains an entire chapter, which gives the scientific consensus regarding whether or not climate change is influencing the frequency or magnitude of hazards. You cannot ignore the scientific evidence in favour of 'concerns' that might be reported in the 'risk management literature', and raise these 'concerns' to the level of the executive summary. The paragraph needs to be rewritten based on the assessment given in Chapter 3, which does not support such a general increase in magnitude and frequency of hazards as you elude to here. In addition, how exactly is 'uncertainty' increasing with climate change? There is no scientific basis for this statement. (Stocker, Thomas, IPCC WGI TSU)	This statement has now been removed from the executive summary
89	6	3	34	3	37	The sentence is not easy to understand, could it be split in two to improve readability? (NORWAY)	This sentence has now been removed from the executive summary
90	6	3	34	3	37	It would be helpful to clarify that the risk management literature referred to here is asserting linkages between climate change and trends in hazards and disaster impacts, whether or not those linkages are scientifically robust, as discussed on page 35, lines 2-9. It would also be helpful to clarify what "increasing uncertainty" refers to. Finally, it would be useful to clarify the meaning of "remain normative." Does this phrase mean that the literature is recommending action rather than analyzing actions that have been taken? (IPCC WGII TSU)	This statement has now been removed from the executive summary
91	6	3	35	3	37	The text lacks clarity. The following wording is suggested: While the risk management literature indicates concerns that climate change is increasing the frequency and magnitude of hazards, adaptive actions to these changes still tend to remain normative because of the uncertainty about the contribution of climate change on the upward trends in disaster impacts. (Radunsky, Klaus, Umwelthundesamt GmbH)	This statement has now been removed from the executive summary
92	6	4	0	0	0	'While governments cannot act alone, majority of them are well placed and equipped.. ' The article invests great trust in government, while backgrounding that in the first 24 hours, any response is local, and they continue to shoulder the biggest burden after that (Kirschebaum 2004). It is these efforts and capacities that states, companies and CBOs can support and strengthen (Warner, Jeroen, Wageningen University)	We draw a distinction between ex-ante and ex-post action. We believe that we are clear that different actors play different roles at different scales.
93	6	4	3	4	20	The first paragraph of the Executive Summary is highly overlapping with this paragraph. It would be preferable for the Executive Summary to more succinctly summarize information presented here rather than repeating it. (IPCC WGII TSU)	Executive summary rewritten to remove duplication
94	6	4	3	4	41	This detailed introduction to disaster losses at the national level provides information that may be more appropriately placed in chapter 4, section 4.6.3.1. A shorter introduction with reference to the relevant section in chapter 4 would be preferable here. Additionally, consistency of lines 33-41 with relevant material in chapter 8 should be ensured. (IPCC WGII TSU)	We coordinated the text some more between chs. 4, 6 and 7 and did substantially rewrite this section. Yet, the focus on ch.4 is more global, and it was not possible to add a lot of this discussion. Also, while ch.6 discusses the needs and opportunities of well managing risk, we think it is also important to identify the consequences of insufficient management of risk, which is a reality of many countries.
95	6	4	5	4	5	The citation for IFRC (2010) is not provided in the chapter's reference list. Please ensure this citation is added to the reference list. (IPCC WGII TSU)	Reference to IFRC made consistent with what is listed in the text (as IFRC)
96	6	4	6	4	6	It seems the word "highest" would be preferable to "concentrated" here. (IPCC WGII TSU)	thanks for the suggestion
97	6	4	11	4	11	Instead of the abbreviated Executive Summary introduction of the metric used to characterize losses, it would be preferable to provide a more extended description here (e.g., a 1 sentence description instead of a parenthetical mention). (IPCC WGII TSU)	text amended to provide better description
98	6	4	17	4	18	This sentence is unclear. (IPCC WGII TSU)	amended to clarify the meaning
99	6	4	18	4	20	It would be preferable to indicate how this 200% example figures in the range of very high cost events. Is this example an outlier? How frequently do such high cost events occur? (IPCC WGII TSU)	revised to provided a clearer picture
100	6	4	23	4	23	It is unclear what source Benson (1997) corresponds to in the chapter's reference list, given multiple references for this author and year in that list. Please revise the citation so that its corresponding reference is unambiguous. (IPCC WGII TSU)	references amended to include 'a', 'b' etc in the text as we will as in the reference list

#	Chapter	From Page	From Line	To Page	To Line	Comment	Response
101	6	4	23	4	24	It is unclear what source Benson et al. (2001) corresponds to in the chapter's reference list, given multiple references for this author and year in that list. Please revise the citation so that its corresponding reference is unambiguous. (IPCC WGII TSU)	Clarified and revised
102	6	4	25	4	25	The citation for Mechler (2009) is not provided in the chapter's reference list. Please ensure this citation is added to the reference list. (IPCC WGII TSU)	included
103	6	4	29	4	37	It has been observed in developed countries that efficient disaster recovery ex ante financing through insurance solutions may produce a temporary boosting effect on GDP (NUSSBAUM, Roland, Mission Risques Naturels)	text revised to include such a possibility
104	6	4	29	5	54	This sub paragraph about national governments often being "the insurers of last resorts" and "used to be considered to be the most effective insurance instruments of society" is true and interesting from an historical and sociological point of view, but consideration of present economic and budgetary constraints at many States level, should be introduced to explain the shift towards more PPP insurance regimes, both in developed and developing countries. A more consistent analysis of those PPP and their components should be undertaken. In this chapter dealing with national approach, the importance for sound and integrated flood risk management of responsibilities sharing between State, local authorities such as floodplain managers and individuals. Such involvement helps optimise total loss control at those different decision levels as well as risk transfer scheme. (NUSSBAUM, Roland, Mission Risques Naturels)	We have discussed the need for innovative thinking given increasing risks and shrinking fiscal space.
105	6	4	33	4	34	It seems that poor development status would affect vulnerability as well, even though only exposure is mentioned here. (IPCC WGII TSU)	text modified to reflect both the effects on exposure as well as vulnerability
106	6	4	33	4	34	How is poor development status defined? Are there specific characteristics of importance? (IPCC WGII TSU)	explained in terms of human development index
107	6	4	35	4	35	It would be helpful to clarify the definition of a "basic needs poverty line." (IPCC WGII TSU)	text revised to just refer to poverty line (as compared with the poverty line defined in terms of basic needs and nutritional status)
108	6	4	36	4	41	This text needs to be made clearer. It may be worth getting across very clearly that disasters not only are affecting development, both in terms of set back and barriers, but at the same time development is causing disasters, so it is a problem of and for development. As it stands now it sounds like disasters of our own making is something very unusual, when the contrary is probably the case that disasters and social vulnerability is very much a product of development choices taken. The linkages between rapid urbanization and disasters for example have sometimes been described as reflexive: cities create their own risks by causing degradation of the local, regional, and global environments. High concentrations of resources and people again makes the economic, social, and environmental costs of disasters high in urban areas (Michell, J.K. 1999. Megacities and natural disasters: A Comparative Analysis. GeoJournal 49/2, 137-142; Pelling, M., (ed). 2003. Natural Disasters and Development in a Globalizing World. Routledge, London). (Sygna, Linda, Department of Sociology and Human Geography)	paragraph modified to reflect such effects
109	6	4	38	4	38	It is unclear what source Benson and Clay (2004) corresponds to in the chapter's reference list, given multiple references for these authors and year in that list. Please revise the citation so that its corresponding reference is unambiguous. (IPCC WGII TSU)	This is corrected, the other Benson, C. & Clay, E. (2004) is of 2002. We now refer to Benson, C. & Clay, E. (2004). Understanding the Economic and Financial Impacts of Natural Disasters. Washington, DC. The World Bank
110	6	4	38	4	38	The citation for IFRC (2010) is not provided in the chapter's reference list. Please ensure this citation is added to the reference list. (IPCC WGII TSU)	reference included
111	6	4	39	4	41	It would be helpful to clarify the second half of this sentence. What exactly is meant by "a problem of, and not for development"? (IPCC WGII TSU)	text rewritten to clarify this
112	6	4	45	0	0	The Hyogo Framework has been influential in influencing disaster legislation and preparedness in some countries, but not others (including the Netherlands). (Warner, Jeroen, Wageningen University)	the diversity is not better captured in the eh text
113	6	4	45	4	45	The specific relevant sections of chapter 7 should be cited here. (IPCC WGII TSU)	Actual CH 7 section is now referenced
114	6	4	48	4	48	It is unclear what source Yodmani (2001) corresponds to in the chapter's reference list, given multiple references for these authors and year in that list. Please revise the citation so that its corresponding reference is unambiguous. (IPCC WGII TSU)	reference is the same but checked and revised - see checked updated references
115	6	4	48	4	48	The citation for IFRC (2004) is not provided in the chapter's reference list. Please ensure this citation is added to the reference list. (IPCC WGII TSU)	IFRC reference harmonised
116	6	4	48	4	48	The citation for UNISDR (2004) is not provided in the chapter's reference list. Please ensure this citation is added to the reference list. (IPCC WGII TSU)	UNISDR - now referenced as ISDR
117	6	4	49	4	49	The citation for UNISDR (2007) is not provided in the chapter's reference list. Please ensure this citation is added to the reference list. (IPCC WGII TSU)	UNISDR - now referenced as ISDR

#	Chapter	From Page	From Line	To Page	To Line	Comment	Response
118	6	4	49	4	49	It is unclear what source Venton and LaTrobe (2008) corresponds to in the chapter's reference list, given multiple references for these authors and year in that list. Please revise the citation so that its corresponding reference is unambiguous. (IPCC WGII TSU)	One reference deleted from list
119	6	4	49	4	49	The citation for IFRC (2010) is not provided in the chapter's reference list. Please ensure this citation is added to the reference list. (IPCC WGII TSU)	reference included
120	6	5	3	5	9	It would be helpful to characterize the author team's assessment of the "disagreement in the literature" with summary terms for evidence and agreement, per the AR5 Guidance Note on Treatment of Uncertainties. Additionally, it is not clear whether the final sentence indicates a judgment by the author team that the view articulated in the final sentence is preferable to the previously described view. (IPCC WGII TSU)	This has now been taken care of.
121	6	5	6	5	6	The specific relevant sections of chapter 5 should be cited here. (IPCC WGII TSU)	Done
122	6	5	14	5	15	The citation for Prabhakar et al. (2008) is not provided in the chapter's reference list. Please ensure this citation is added to the reference list. (IPCC WGII TSU)	Completed.
123	6	5	16	5	16	It would be helpful to clarify more explicitly what is meant by "disaster are largely covariate in nature, often surpassing people's and businesses' coping capacity" so that the intended meaning is clear to the reader. (IPCC WGII TSU)	This is better explained now.
124	6	5	17	5	17	We are not convinced that national governments are better placed than other actors to take a long time perspective when making decisions (what about the disruptions caused by elections and changes in leadership?), or that they are better able to appreciate climate change risks and uncertainties. We would like to see more explanation if they are going to make this claim. (UNITED STATES OF AMERICA)	We have toned this down a little bit, but in principle myopia is larger in the private sector due to the need to make profits, as well as households' myopia.
125	6	5	17	5	17	The citation for Benson and Clay (2002) is not provided in the chapter's reference list. Please ensure this citation is added to the reference list. (IPCC WGII TSU)	reference checked
126	6	5	17	5	19	It would be helpful to expand more explicitly on why national governments are well placed to take "a longer time perspective." (IPCC WGII TSU)	text revised to make the statement clearer
127	6	5	20	5	20	Insufficient instead of little (CARLINO, HERNAN, UNIVERSIDAD TORCUATO DI TELLA)	thanks for the suggestion
128	6	5	22	5	22	It is not clear if poor refers to early, insufficient or actual low income. (CARLINO, HERNAN, UNIVERSIDAD TORCUATO DI TELLA)	text clarified
129	6	5	24	5	24	The citation for Carter (1991) is not provided in the chapter's reference list. Please ensure this citation is added to the reference list. (IPCC WGII TSU)	reference included
130	6	5	27	5	28	The non negative effects of disasters on growth and development may be right in cases of developed societies where disasters may induce replacement of installed capacity with newer, more efficient technologies and equipment. The same cannot be said of developing societies where disaster forces reassignment of resources to reconstruction that should have been allocated elsewhere. (CARLINO, HERNAN, UNIVERSIDAD TORCUATO DI TELLA)	I think we are making this point.
131	6	5	28	5	29	Sentence needs to be reworded -- Ch03/Ch04 do not refer to "systems" which is the subject of this sentence. Consider "Changes in climate extremes (Ch03) and the related impacts (Ch04) pose new challenges for these systems..." (Stocker, Thomas, IPCC WGI TSU)	modified text
132	6	5	29	5	29	The citation for Lavell (1998) is not provided in the chapter's reference list. Please ensure this citation is added to the reference list. (IPCC WGII TSU)	reference included
133	6	5	30	5	30	It is unclear what source Venton and LaTrobe (2008) corresponds to in the chapter's reference list, given multiple references for these authors and year in that list. Please revise the citation so that its corresponding reference is unambiguous. (IPCC WGII TSU)	checked and confirmed
134	6	5	32	5	32	For the phrase "are seen as priorities," it would be preferable to specify more explicitly *who* is setting these priorities. (IPCC WGII TSU)	sentence revised for clarity
135	6	5	34	5	37	For the comparisons implied in this sentence by "stronger," "greater," and "more widespread," it needs to be clarified what national DRM systems are being compared to. (IPCC WGII TSU)	paragraph revised to remove this comparative statement
136	6	5	43	5	45	This claim needs support of reference(s) (NETHERLANDS)	an assessment of the team
137	6	5	44	5	52	The balance would be achieved by considering them as complementary options rather than as diverging options. Probably the reasoning can be improved. (CARLINO, HERNAN, UNIVERSIDAD TORCUATO DI TELLA)	the impression of this dichotomy is removed
138	6	5	53	0	0	Management of Disasters and management of Disasters Risks are artificially opposed : Risk management includes crisis management, it is a continuous chain. (BOURRELIER, PAUL-HENRI, AFPCN)	I think we have been clear on this point throughout the chapter and normalised the use of language to this effect. Section 6.5 certainly lays this out as a chain and the figure 6.3 illustrates this clearly now.

#	Chapter	From Page	From Line	To Page	To Line	Comment	Response
139	6	5	53	5	53	The term "disaster management," as used here, excludes reduction of disaster risk, ostensibly implying only post-disaster responses. Given that disaster risk management is also used, it would be preferable to use a more distinct term than "disaster management." (IPCC WGII TSU)	instead of just referring to disaster management, here it is 'post disaster management' is what is referred to - changed
140	6	6	5	6	5	It is unclear what source Mechler (2005) corresponds to in the chapter's reference list, given multiple references for these authors and year in that list. Please revise the citation so that its corresponding reference is unambiguous. (IPCC WGII TSU)	There is only one Mechler 2005 remaining.
141	6	6	5	6	5	The citation for UN/ World Bank (2010) is not provided in the chapter's reference list. Please ensure this citation is added to the reference list. (IPCC WGII TSU)	included
142	6	6	13	6	15	This claim needs support of reference(s) (NETHERLANDS)	this is an assessment of the team
143	6	6	20	6	20	Has the adaptation deficit been referred to previously? Is there a definition of this deficit in the context of national institutions? (CARLINO, HERNAN, UNIVERSIDAD TORCUATO DI TELLA)	Now removed and reworded to aid clarity
144	6	6	25	6	29	These are very relevant conclusions that should be highlighted and reinforced through additional examples/literature. (CARLINO, HERNAN, UNIVERSIDAD TORCUATO DI TELLA)	We have tried to bolster examples and the literature referred to hear and made the executive summary clearer in the way it draws material from the underlying chapter.
145	6	6	29	6	30	"there is though some literature that suggests that disasters may not always have a negative effect on economic growth and development". The non negative effects of disasters on growth and development may be right in cases of developed societies where disasters may induce replacement of installed capacity with newer, more efficient technologies and equipment. The same cannot be said of developing societies where disaster forces reassignment of resources to reconstruction that should have been allocated elsewhere (Barros, Vicente, IPCC WGII TSU)	I think we are making this point.
146	6	6	29	6	30	The non negative effects of disasters on growth and development may be right in cases of developed societies where disasters may induce replacement of installed capacity with newer, more efficient technologies and equipment. The same cannot be said of developing societies where disaster forces reassignment of resources to reconstruction that should have been allocated elsewhere. (Barros, Vicente, IPCC WGII TSU)	same as # 145
147	6	6	31	6	33	This is also a major conclusion from disaster risk management experience and history that provides a lesson to climate change adaptation. Suggest underscoring the issue. (CARLINO, HERNAN, UNIVERSIDAD TORCUATO DI TELLA)	yes that is one of the key messages/ assessment conclusions
148	6	6	38	6	42	Again, through the differences between disaster risk management and climate change adaptation, basically in terms of scope and crosscutting nature of climate change impacts and hence adaptation, lessons can be learned in terms of how to improve planning, funding and implementation of adaptation strategies. (CARLINO, HERNAN, UNIVERSIDAD TORCUATO DI TELLA)	yes agree with this comment and hope that this is highlighted in the introductory text
149	6	6	49	6	51	Further consideration should be given to the fact that in developing countries cost benefit analysis compare damage and losses of very poor, neglected or insufficient infrastructure with the costs of replacement by new but non existing adequate infrastructure. (CARLINO, HERNAN, UNIVERSIDAD TORCUATO DI TELLA)	Infrastructure costs have now been included in a discussion of costs/damages and risk sharing/pooling.
150	6	6	49	7	39	IPCC is policy neutral, not policy prescriptive. Maintaining neutrality means that the chapter can not state what a government "must" do, nor can they define what a governments "responsibility" or "function" is. This is fundamentally policy prescriptive. (Stocker, Thomas, IPCC WGI TSU)	We have sought to remove policy prescriptive language through recognise that normative basis to the way the chapter is presented, suggests some implicit standards and responsibilities. This is clear within the literature.
151	6	6	49	7	39	The reality is that there are different ministries and departments at the national level responsible for CC and for DRM (Hillier, Debbie, Oxfam)	We agree with this comments, we have included a line with this information
152	6	6	50	6	50	The citation for UNISDR (2004) is not provided in the chapter's reference list. Please ensure this citation is added to the reference list. (IPCC WGII TSU)	Included
153	6	6	52	6	52	The citation for CCCD (2009) is not provided in the chapter's reference list. Please ensure this citation is added to the reference list. (IPCC WGII TSU)	Included
154	6	6	52	6	54	It would be helpful to clarify what is meant by "owning" risks. Is liability or responsibility for disaster impacts meant? (IPCC WGII TSU)	Change in the redaction has been included
155	6	7	1	7	1	Change the first sentence to 'Various normative theories support this' (Brooke, Roy, United Nations)	Change in the redaction has been included
156	6	7	1	7	1	It would be helpful to clarify what is meant by this first sentence. Recourse could be included in what? (IPCC WGII TSU)	Clarification has been made
157	6	7	5	7	5	The citation for Shaw et al. (2009) is not provided in the chapter's reference list. Please ensure this citation is added to the reference list. (IPCC WGII TSU)	Citation included

#	Chapter	From Page	From Line	To Page	To Line	Comment	Response
158	6	7	9	7	9	The citation for Cummins and Mahul (2008) is not provided in the chapter's reference list. Please ensure this citation is added to the reference list. (IPCC WGII TSU)	Error in the citation, correction has been made
159	6	7	10	7	10	Reference needed (NETHERLANDS)	References added to 6.2.1
160	6	7	17	0	0	« more importantly in response to ...climate extremes »: we rather think the contrary. (BOURRELIER, PAUL-HENRI, AFPCN)	Change in the redaction has been made to make the idea more clear
161	6	7	18	7	19	Why do you cite UNISDR here? UNISDR are not a scientific authority on climate extremes. You simply should just refer the reader here to Chapter 3 of SREX. (Stocker, Thomas, IPCC WGI TSU)	The UNISDR are relevant literature and is complementing the scietific literature cited there. Nevertheless to refer to chapter 3 has been added
162	6	7	19	7	19	The citation for UNISDR (2004) is not provided in the chapter's reference list. Please ensure this citation is added to the reference list. (IPCC WGII TSU)	Citation has been added
163	6	7	21	7	39	Much of the content of this paragraph is repetitive with previous information. (IPCC WGII TSU)	We think that this paragraph add important impormation and from a different angle of what was presented above
164	6	7	22	7	22	As a very minor point, for consistency with the glossary and chapter 3's usage of the terms, it would be preferable to refer to "extreme climate and weather events" or to "climate extremes," instead of to "extreme climate events." (IPCC WGII TSU)	Change has been included
165	6	7	26	7	26	Society, communities as well as individuals households rather than individuals households alone. (CARLINO, HERNAN, UNIVERSIDAD TORCUATO DI TELLA)	Now changed. Thank you.
166	6	7	26	7	26	The citation for UNISDR (2004) is not provided in the chapter's reference list. Please ensure this citation is added to the reference list. (IPCC WGII TSU)	The reference has been included
167	6	7	27	7	28	The citation for CCCD (2009) is not provided in the chapter's reference list. Please ensure this citation is added to the reference list. (IPCC WGII TSU)	The reference has been included
168	6	7	29	7	29	The citation for Shaw et al. (2009) is not provided in the chapter's reference list. Please ensure this citation is added to the reference list. (IPCC WGII TSU)	The reference has been included
169	6	7	30	7	30	The citation for Shaw et al. (2009) is not provided in the chapter's reference list. Please ensure this citation is added to the reference list. (IPCC WGII TSU)	The reference has been included
170	6	7	33	7	33	The citation for CCCD (2009) is not provided in the chapter's reference list. Please ensure this citation is added to the reference list. (IPCC WGII TSU)	The reference has been included
171	6	7	38	7	38	The citation for Prabhakar et al. (2008) is not provided in the chapter's reference list. Please ensure this citation is added to the reference list. (IPCC WGII TSU)	Mistake in the citation, this has been fixed
172	6	7	39	7	42	These national functions provide a relatively limited description of national government functions, including predominantly those related to economic functions, rather than those related to basic functions of government: ensuring freedom, security, human rights, equity. Suggest reconsidering this part of the paragraph. (CARLINO, HERNAN, UNIVERSIDAD TORCUATO DI TELLA)	pages off, I think we address this mostly
173	6	7	42	7	45	" economic welfare theory suggests that national governments are exposed to natural disaster risk and potential losses due to their three main functions: allocation of public goods and services (e.g. education, clean environment and security), the redistribution of income as well as their role in stabilizing the economy. These national functions provide a relatively limited description of national government functions, including predominantly those related to economic functions, rather than those related to basic functions of government: ensuring freedom, security, human rights, equity. Suggest rewording this part of the paragraph (Barros, Vicente, IPCC WGII TSU)	pages off, I think we address this mostly
174	6	7	42	8	27	This section overlooks the major roles of private sector organizations, such as professional societies and trade associations, in developing and implementing standards and practices for disaster risk reduction. These practices include national and international standards and model building codes that are adopted in the regulations of local, state and national governments. (Wright, Richard, American Society of Civil Engineers)	I added accordingly.
175	6	7	50	7	50	It would be helpful to provide a slightly more expanded description of "business model approaches" as done for CSR and PPP. (IPCC WGII TSU)	Yes, this is included now
176	6	7	50	7	52	The term 'business model approaches' is not clear in this context. It should be defined. I interpret it to mean that DRR should be intergrated into core business services but this does not come out until p 8 line 15 (Brooke, Roy, United Nations)	This is explained now.
177	6	7	50	7	52	Role of the Private Sector: What is meant by the role of the private sector in Public Private Partnerships and Business Model Approaches? More information / definition / examples would be useful. (International Petroleum Industry Environmental Conservation Association (IPIECA))	This is explained now.

#	Chapter	From Page	From Line	To Page	To Line	Comment	Response
178	6	7	50	8	13	It is true that insurance markets have an aversion to ambiguity, but insurability concerns have always been at stake as regards NatCat insurance. The most important remedy to insurability concerns is a steady improvement of risk knowledge and reduction, both at individual and collective level. (NUSSBAUM, Roland, Mission Risques Naturels)	We discuss this now
179	6	8	1	8	5	The author team might consider citing case study 9.2.10 here. (IPCC WGII TSU)	done
180	6	8	5	8	5	For Auffret (2003), the publication year carries a letter in the chapter's reference list. Please ensure the citation is correct and harmonize the reference in both locations (chapter text and reference list). (IPCC WGII TSU)	Yes, we adapted this now.
181	6	8	6	8	6	The citation for Cummins and Mahul (2008) is not provided in the chapter's reference list. Please ensure this citation is added to the reference list. (IPCC WGII TSU)	Cummins & Mahul 2009 was erroneously indicated as 2008, which has been repaired
182	6	8	10	8	10	This needs a much better explanation. Please see chapter 3 about attributing specific extreme weather events to climate change. (IPCC WGII TSU)	This is rewritten as "Accordingly, as climate change, and other drivers such as changes in vulnerability and exposure (see chapters 1,2,3), are projected to lead to changes in frequency and intensity of some weather risks and extremes, insurers may be less prepared to underwrite insurance for extreme event risks and thus innovative private-public sector partnerships are required to better estimate and price risk as well as develop robust products, which may be supported in developing countries by development partner funds as well (see section 6.3.3.3 and case study 9.2.10 in chapter 9). "
183	6	8	13	8	13	The specific relevant case study in chapter 9 should be cited (by its number). (IPCC WGII TSU)	Insurance case: yes
184	6	8	15	8	21	The author team should consider using summary terms for evidence and agreement to characterize the information described here, per the AR5 Guidance Note on Treatment of Uncertainties. (IPCC WGII TSU)	This has been dealt with.
185	6	8	16	8	19	A reference to budgetary planning and allocation should be included here as this is the primary means by which financing is then mobilized. (CARLINO, HERNAN, UNIVERSIDAD TORCUATO DI TELLA)	Not fully true as risk transfer transfers risk from one party to the other. We left the text as it is, as we discuss this further below on the planning and budgeting section as well as under risk transfer
186	6	8	18	8	18	It might be helpful to clarify what is meant by "business case"--profitability?--for those who are not familiar with the term. (IPCC WGII TSU)	This is better explained now.
187	6	8	21	8	27	The author team here should carefully consider the characterization of climate change as a justification for action or for raising awareness. Both scientific understanding of climate change and its effects and public awareness of climate change can be seen as "motivations" for action, but public awareness and general concern about climate change should not be implied to be equivalent to scientific understanding. It is not clear in these sentences exactly what is meant, and it would be helpful to clarify where public awareness or general concern is intended, versus scientific understanding. (IPCC WGII TSU)	Both scientific understanding of climate change and its effects and public awareness of climate change can be seen as "motivations" for action, but public awareness and general concern about climate change should not be implied to be equivalent to scientific understanding.
188	6	8	30	0	0	3 Community-based Organisations: 'The community' is however a concept that should be unpacked. Communities throw together people from different backgrounds, socioeconomic status, and often with conflicts between them. Not everyone is represented and linked by a CBO. Communities often have cultural biases against groups such as the handicapped, divorced women and illegitimate children. Because of the lack of a social safety net, they are doubly vulnerable. We cannot expect the state to fix these shortcomings – it requires a cultural change. (Warner, Jeroen, Wageningen University)	Reference now made to the discussion in chapter 5.1 about 'community' and 'local', which helps to highlight the contested nature of these labels. This section explicitly addresses the role of CBOs at the national level.
189	6	8	30	0	0	Section 6.2.3. At the start of this section, it would be helpful for the reader to provide a brief definition of civil society and community-based organizations. (IPCC WGII TSU)	This has now been included. Thank you for highlighting.
190	6	8	30	0	0	Section 6.2.3. This section is too narrow and misses significant aspects, such as the contributions of the Red Cross programs (Maarten van Aalst can provide information on their programs) and perspectives other than Central America. (IPCC WGII TSU)	This section, following consultation, has now been broadened, though recognising that it does only refer to the role played by civil society organisations at national level.
191	6	8	32	8	39	Overlap with page 8, line 52, through page 9, line 1 should be considered and reduced as appropriate. (IPCC WGII TSU)	This has been addressed
192	6	8	44	8	44	The citation for CRGR (2007) is not provided in the chapter's reference list. Please ensure this citation is added to the reference list. (IPCC WGII TSU)	This has been addressed
193	6	8	46	8	46	The citation for CRGR (2008) is not provided in the chapter's reference list. Please ensure this citation is added to the reference list. (IPCC WGII TSU)	This has been addressed.

#	Chapter	From Page	From Line	To Page	To Line	Comment	Response
194	6	8	47	8	48	Editorial revision is needed here. If understood correctly support by development funds is required. Governmental support in terms of regulatory frameworks and specific mechanisms should also be mentioned. (CARLINO, HERNAN, UNIVERSIDAD TORCUATO DI TELLA)	Editorial revision have been made
195	6	8	48	8	48	It is unclear what source Lavell (2009) corresponds to in the chapter's reference list, given multiple references for these authors and year in that list. Please revise the citation so that its corresponding reference is unambiguous. (IPCC WGII TSU)	This has been addressed
196	6	8	48	8	49	Editorial revision is needed (Barros, Vicente, IPCC WGII TSU)	Editorial revisions have been made
197	6	8	50	8	50	The citation for GNDR (2009) is not provided in the chapter's reference list. Please ensure this citation is added to the reference list. (IPCC WGII TSU)	This has now been corrected
198	6	8	52	9	1	Overlap with page 8, lines 32-39, should be considered and reduced as appropriate. (IPCC WGII TSU)	now reduced as appropriate
199	6	9	2	9	2	The citation for Wilchez-Chaux (2008) is not provided in the chapter's reference list. Please ensure this citation is added to the reference list. (IPCC WGII TSU)	This has been addressed
200	6	9	3	9	3	The citation for Benson (2001) is not provided in the chapter's reference list. Please ensure this citation is added to the reference list. (IPCC WGII TSU)	This has been addressed
201	6	9	4	9	4	The citation for CRGR (2007a) is not provided in the chapter's reference list. Please ensure this citation is added to the reference list. (IPCC WGII TSU)	This has been addressed.
202	6	9	14	0	0	Section 6.2.4. At the start of this section, it would be helpful for the reader to provide a brief definition of bi-lateral and multi-lateral agencies. (IPCC WGII TSU)	This has now been added
203	6	9	16	9	45	There is much literature on the mainstreaming of adaptation in development that would add to this discussion, including Klein, R.J.T., Eriksen, S., Naess, L.O., Hammill, A., Robledo, C., O'Brien, K. (2007). Portfolio screening to support the mainstreaming of adaptation to climate change into development. Climatic Change 84, 23-44; Eriksen, S. and Naess, L.O. (2003). Pro-Poor Climate Adaptation: Norwegian development cooperation and climate change adaptation - an assessment of issues, strategies and potential entry points. Report 2003:02. CICERO, 75pp.; Persson, Å. and R.J.T. Klein, (2009). Mainstreaming adaptation to climate change into official development assistance: challenges to foreign policy integration. In: P. Harris (ed.) Climate Change and Foreign Policy: Case Studies from East to West. London: Routledge. ISBN: 9780415483452. Pp. 162-177 and many more. (Sygna, Linda, Department of Sociology and Human Geography)	Thank you, this is extremely helpful and all the suggested references have now been added.
204	6	9	16	9	45	It would be preferable to provide more citations in support of the statements in these paragraphs. (IPCC WGII TSU)	Have expanded the number of citations.
205	6	9	20	9	20	As a minor point, for consistency with the glossary and chapter 3's usage of the terms, it would be preferable to refer to "extreme climate and weather events" or to "climate extremes," instead of to "extreme climatic events." (IPCC WGII TSU)	This has now been removed
206	6	9	20	9	22	"extreme climatic events normally occur contiguously within specific region..." scientific references are need to support this statement. (Stocker, Thomas, IPCC WGI TSU)	This has now been removed
207	6	9	23	9	23	The acronyms SOPAC and SPREP need to be defined. (IPCC WGII TSU)	This have now been removed
208	6	9	23	9	23	The citation for Gero, Méheux et al. (2010) is not provided in the chapter's reference list. Please ensure this citation is added to the reference list. (IPCC WGII TSU)	This has now been added
209	6	9	23	9	23	The citation for Hay (2010) is not provided in the chapter's reference list. Please ensure this citation is added to the reference list. (IPCC WGII TSU)	This has now been removed
210	6	9	25	9	30	Page 9, lines 25-30, consider rewriting in shorter sentences, this is not clear. (NETHERLANDS)	Section has now been rewritten and edited accordingly
211	6	9	25	9	30	The first and last sentences sound contradictory. (IPCC WGII TSU)	This
212	6	9	27	9	27	The citation for Gero et al. (2010) is not provided in the chapter's reference list. Please ensure this citation is added to the reference list. (IPCC WGII TSU)	This is now added
213	6	9	32	9	45	This paragraph does not reflect recent significant changes, for example following the Asian tsunami when lessons learned lead to significant coordination across governments, NGOs, etc. (IPCC WGII TSU)	Not fully understood, but now emphasis given to the predominance of national ownership in promoting co-ordination.
214	6	9	36	9	38	Page 9, lines 36-38, maybe competing approaches are good, this gives the country and the actors the possibility to find the approach that suits the circumstances best. (NETHERLANDS)	This has now been edited out and issues of co-ordination raised.
215	6	9	40	9	40	The citation for Wickham et al. (2009) is not provided in the chapter's reference list. Please ensure this citation is added to the reference list. (IPCC WGII TSU)	Now included.
216	6	9	40	9	40	The citation for Hay (2010) is not provided in the chapter's reference list. Please ensure this citation is added to the reference list. (IPCC WGII TSU)	This has now been dealt with.

#	Chapter	From Page	From Line	To Page	To Line	Comment	Response
217	6	9	42	9	42	The citation for Hays (2010) is not provided in the chapter's reference list. Please ensure this citation is added to the reference list. (IPCC WGII TSU)	This has now been dealt with.
218	6	9	48	0	0	Suggest this section include an expanded discussion on traditional knowledge and its importance in contributing knowledge on climate change and disaster risk reduction discussions. (CANADA)	Traditional knowledge discussed in section 6.2.5 and elsewhere in the chapter - we do not feel it appropriate to expand the discussion of traditional knowledge in this particular section though have included a reference to chapter 5 where it is discussed in much more detail
219	6	9	51	9	51	Typo in citation: For Sperling and Szekely (2005), the second author's name is spelled differently in the chapter text, as compared to the chapter reference list. Please ensure correct spelling of the author's name in both the text and the reference list (IPCC WGII TSU)	Mistake in the citation has been fixed
220	6	10	4	10	13	There also are centers, such as the one in Kobe, that provide training on preparing for and responding to disasters. (IPCC WGII TSU)	This section describes research organizations and not other type of organizations
221	6	10	13	10	13	Typo in citation: For Sperling and Szekely (2005), the second author's name is spelled differently in the chapter text, as compared to the chapter reference list. Please ensure correct spelling of the author's name in both the text and the reference list (IPCC WGII TSU)	Mistake in the citation has been fixed
222	6	10	15	0	0	Page 10, line 15, climate = weather? (NETHERLANDS)	Change in the redaction has been made to make the phrase more clear
223	6	10	15	10	15	We think it would be more accurate to include "weather and" in this sentence. (UNITED STATES OF AMERICA)	Change in the redaction has been made to make the phrase more clear
224	6	10	15	10	16	Is it correct to say that disaster practitioners focus on short term climate forecasting? Don't you rather mean to say that they '...largely make use of short term climate forecasting.....'. Otherwise you seem to imply that disaster practioners are the people developing climate forecasts, which is not the case. (Stocker, Thomas, IPCC WGI TSU)	Change in the redaction has been made to make the phrase more clear
225	6	10	15	10	19	The logical connections between the statements being made in this paragraph need to be clarified. "Such climate change expertise" presumably is in reference to "short term climate forecasting and effective dissemination and communication of hazard information and responses," but this latter phrase seems to also encompass non-climate-change-related aspects. Additionally, the contrast implied by "while" is not completely clear. (IPCC WGII TSU)	Change in the redaction has been made to make the phrase more clear
226	6	10	17	10	17	In addition to environment / energy departments and academic institutions, the list of entities with weather/climate/forecasting expertise should also include meteorological agencies. (UNITED STATES OF AMERICA)	Meteorological agencies have been included
227	6	10	17	10	17	Typo in citation: For Sperling and Szekely (2005), the second author's name is spelled differently in the chapter text, as compared to the chapter reference list. Please ensure correct spelling of the author's name in both the text and the reference list (IPCC WGII TSU)	Mistake in the citation, this has been fixed
228	6	10	19	10	19	Typo in citation: For Sperling and Szekely (2005), the second author's name is spelled differently in the chapter text, as compared to the chapter reference list. Please ensure correct spelling of the author's name in both the text and the reference list (IPCC WGII TSU)	Mistake in the citation, this has been fixed
229	6	10	24	10	35	Here and elsewhere in the chapter you often refer to 'weak governments'. What are the characteristics of a 'weak' government? (Stocker, Thomas, IPCC WGI TSU)	I have removed this section, relying on the linking material at the end of the introduction to structure the argument.
230	6	10	25	10	25	Section 6.2 does not really discuss managing uncertainty. (IPCC WGII TSU)	I have removed this section, relying on the linking material at the end of the introduction to structure the argument.
231	6	10	32	10	35	It should be clarified whether this recommendation is coming from the citation provided or whether it is a conclusion of the author team, given the placement of the citation in the middle of the sentence. (IPCC WGII TSU)	I have removed this section, relying on the linking material at the end of the introduction to structure the argument.
232	6	10	33	10	34	The citation for OECD (2010) is not provided in the chapter's reference list. Please ensure this citation is added to the reference list. (IPCC WGII TSU)	I have removed this section, relying on the linking material at the end of the introduction to structure the argument.
233	6	10	37	10	45	This paragraph should be deleted, as it just repeats the introduction and says what will be found in the section without any added content. (Stocker, Thomas, IPCC WGI TSU)	I have removed this section, relying on the linking material at the end of the introduction to structure the argument.

#	Chapter	From Page	From Line	To Page	To Line	Comment	Response
234	6	10	48	0	0	Section 6.3.1. The citations in this section require substantial revision and attention. Many citations are not provided in the chapter's reference list, or it is unclear what source a citation corresponds to in the reference list. The missing citations must be added to the reference list. Then, all citations must be checked to ensure that they can be unambiguously linked to a reference in the reference list. (IPCC WGII TSU)	have added and clarified citations
235	6	10	50	10	52	This sentence is repeated earlier. (IPCC WGII TSU)	deleted sentence(s)
236	6	11	7	0	0	Add the reference : (Bourrelier 2000) in 6311. (BOURRELIER, PAUL-HENRI, AFPCN)	done
237	6	11	17	11	23	The information in this paragraph is repeated elsewhere. (IPCC WGII TSU)	done
238	6	11	18	11	18	delete "emerging" and "issue" -- climate change is neither "emerging" nor can it be reduced to an "issue" (Stocker, Thomas, IPCC WGI TSU)	deleted paragraph and phrase
239	6	11	18	11	18	Although the sentence describes climate change as "emerging," it seems that it is also ongoing, and this fact should be clarified. (IPCC WGII TSU)	deleted paragraph and phrase
240	6	11	25	11	36	It would be useful to create a Figure that supports the discussion in this paragraph, particularly given the description of the "left" and "right hand" sides of the continuum. It may be wise to use a word other than continuum to avoid confusion with the "adaptation continuum" presented in Figure 5-2. (CANADA)	thanks - figure provided and text revised with new and recent references, eliminated use of left, right and continuum.
241	6	11	25	11	36	For the spectrum described here, it seems that the author team is referring to "gradations" that correspond to the columns of Table 6-1. It would be preferable to present this spectrum and its gradation with explicit reference to the table, if appropriate. Additionally, the author team should consider providing citations for the information in this paragraph. However, chapters 4 and 3 do not consider planning and policy options and therefore their current cross-referencing seems inappropriate; any cross-chapter references that are retained should refer to specific chapter sections. (IPCC WGII TSU)	Thanks. Used word "gradations", revised text and backed by new references. Added new figure to illustrate. Eliminated reference to chapters 3 and 4.
242	6	11	27	11	29	Left and right hand side of the continuum seems odd terminology in the absence of a figure. Suggest one end and other end? (Stocker, Thomas, IPCC WGI TSU)	Changed - revised text, added figure, new references.
243	6	11	30	11	31	You seem to imply here that Chapter 3 describes scientific approaches that reduce climate change impacts. This is clearly not within the scope of chapter 3. (Stocker, Thomas, IPCC WGI TSU)	deleted sentence
244	6	11	33	11	35	The parenthetical example should be more fully explained. How would strengthening resilience today increase vulnerability to flooding? Additionally, it would be preferable to add relevant citations. (IPCC WGII TSU)	Revised examples and text for illustration and added new references.
245	6	11	35	11	35	This mention of "climate change impacts on future flood risks" should consider the relevant assessment findings of chapter 3. (IPCC WGII TSU)	Removed this example - alternate text.
246	6	11	36	11	36	It seems that a reference to 1.4.3.1 would be most appropriate here. (IPCC WGII TSU)	Original text has been rewritten or removed. Incorporated reference to 1.4.3.1 at end of this section.
247	6	11	39	11	39	consider rewording "deal with" to "effectively integrate information regarding". (Stocker, Thomas, IPCC WGI TSU)	done
248	6	11	40	11	43	This "top down" and "bottom up" characterization of approaches to adaptation tends to be polarizing, and hence not helpful, particularly since most effective adaptation initiatives incorporate elements of both (as described elsewhere in the chapter). (CANADA)	Rewrote the text backed with new references (very recent) and using a new figure. Bottom-up and top-down now more integrated.
249	6	11	40	11	43	The point is unclear. Whether to use projections depends on the temporal scale at which decisions are to be made. If the focus is on one to two decades, then modeling isn't really necessary. There is as much evidence that high capacity is needed to be able to use modeling. (IPCC WGII TSU)	Text now distinguishes short-term, long-term and uncertainties behind adaptation decisions.
250	6	11	45	11	45	Delete - 'including no climate change'. Natural variability ensures that climate is always changing. Note that SREX is using a definition of climate change that includes both natural and anthropogenically forced change. (Stocker, Thomas, IPCC WGI TSU)	Reworded; changed text, new references
251	6	11	45	11	45	Again, this depends on scale. Also, do you really expect no climate change? (IPCC WGII TSU)	Reworded and added new references
252	6	11	52	11	53	The process described in this sentence is not clearly articulated. The multiple references to future climate are not sufficiently differentiated and are therefore confusing. (IPCC WGII TSU)	Reworded, added new text plus very recent references to support combined top-down scenarios, bottom-up vulnerabilities-thresholds approaches.
253	6	11	53	11	53	Incorporate additional redundancies? I am unclear on the point and process. (IPCC WGII TSU)	Eliminated any references to redundancies (perhaps additional safety factors would have been a better description).
254	6	12	1	12	2	What do you mean with this vague statement that 'more climate information may be needed to treat the range of uncertainties of the future'? What sort of information and how will it reduce uncertainties? (Stocker, Thomas, IPCC WGI TSU)	Reworded text, elaborated on user needs for relevant information needs, uncertainties backed by new references.
255	6	12	1	12	2	The author team should consider more clearly explaining what is meant by "more climate information may be needed" and how this sentence relates to the previous one. It should also be considered if there are relevant citations that should be provided. (IPCC WGII TSU)	Done - as noted above. Thanks.

#	Chapter	From Page	From Line	To Page	To Line	Comment	Response
256	6	12	4	12	13	Table 6-1 is structured around Sectoral responses and is more appropriate appropriately introduced in section 6.3.1.3. To make the necessary link to "win-win options" in this sentence, you replace the reference to the Table with a reference to section 6.3.1.3. (CANADA)	Removed reference to Table... reworded description of win-win
257	6	12	7	12	7	In future table 6, it should also be mentioned the importance of energy saving: "include ecosystem-based adaptation actions, sustainable land and water use planning, carbon sequestration, energy efficiency, energy saving and energy and food self sufficiency." (SPAIN)	Thanks - done
258	6	12	12	12	13	Although the table insertion point is on these lines, there is a previous paragraph (page 11, lines 25-36) where reference to the table might be included, and the introduction of the table does not occur more extensively until a later page (page 14, lines 23-37). The author team should carefully consider how to introduce the table most logically and effectively within the section, ideally moving the bulleted list on page 14 close to where the table is first mentioned and placed in the chapter text. (IPCC WGII TSU)	Text re-written and figure added, so that section now eliminates need to reference Table 6-1.
259	6	12	15	12	17	Some of these tools are more accurately categorized as risk "transfer", not risk "sharing". (UNITED STATES OF AMERICA)	Done
260	6	12	15	12	28	When referring to insurance as incentive to DRR in no regret strategies, reference could be made to the White paper for an EU CCA Strategy, presenting as well innovative insurance solutions to transfer part of the costs at individual level. Sub paragraph on "the decision to "bear residual losses"" should be clarified. (NUSSBAUM, Roland, Mission Risques Naturels)	Paper referenced. Clarified comment on the decision to do nothing or inadvertently bear residual risk.
261	6	12	22	12	22	Because the term "mitigation" is being used here in relation to disasters (instead of directly in relation to climate change), use of the term should be avoided. (IPCC WGII TSU)	Done - also eliminated reference to example for Turkey
262	6	12	22	12	25	It would be preferable to be more explicit about who is bearing residual losses--governments, individuals, or both? (IPCC WGII TSU)	Paragraph reworded and residual losses reoriented towards results of "doing nothing". All actors will bear the losses.
263	6	12	23	0	0	The remark about insurance in Turkey is interesting, although there are also weaknesses (see Okay 2006.) Von Lucius does not appear in the reference list, in fact this source is cited in Hoff 2005. As he is someone from Munich Re and therefore an 'interested party', this should be flagged up if this quote is to be used. (Warner, Jeroen, Wageningen University)	Turkey quote removed. Thanks for references.
264	6	12	32	12	36	An example would be helpful. (IPCC WGII TSU)	Elaborated on this paragraph to provide more guidance. Done.
265	6	12	46	12	46	The author team should clarify the reasons for which the "challenge to mainstreaming adaptation is not planning but implementation." (IPCC WGII TSU)	Added new paragraph and new references. Adaptation plans reviewed from 11 countries and implementation barriers identified.
266	6	12	48	0	0	What are the barriers to overcome is not very clear : concerning (natural) variability or (human) change? It is not the same thing. (BOURRELIER, PAUL-HENRI, AFPCN)	Human change - added paragraph and new references, as discussed for comment 265.
267	6	12	53	13	5	This paragraph sheds light on key issues regarding national planning and policy design for climate change adaptation. Suggest reinforcing the message. (CARLINO, HERNAN, UNIVERSIDAD TORCUATO DI TELLA)	Done - new paragraph added on barriers based by new references on country implementation practices; more elaboration on bridging current and future actions in this and previous section.
268	6	12	53	13	5	This characterization of CCA approaches is inappropriate, or at best only captures part of the CCA community. "Bottom up" vulnerability assessments have been a key element of CCA for more than a decade. While the author team would have many supporting references, one would be Füssel, H. and Klein, R.J.T. (2006): Climate change vulnerability assessments: an evolution of conceptual thinking; Climatic Change, v. 75, no. 3, p. 301–329. (CANADA)	Rewritten text in this and previous section to integrate bottom-up and top-down approaches and clarify influence of uncertainties, as per new references. Thanks for Fussel 2007 reference.
269	6	13	1	13	1	It should be clarified what is meant by "atmospheric prediction science." Presumably short-term weather forecasting is intended, but this could be clearer. (IPCC WGII TSU)	Text and discussion deleted (length considerations, opportunity to introduce new and alternate references and studies)
270	6	13	11	13	15	The significant temporal scale issues should be addressed. (IPCC WGII TSU)	Temporal and spatial scale challenges are mentioned with reference to Chapter 3, along with the need for relevant and accessible information.
271	6	13	13	13	13	This is quite a controversial assertion. It should be supported with further examples, and reasoning. In fact, as said here, it seems to go against the grain of the entire chapter. (CARLINO, HERNAN, UNIVERSIDAD TORCUATO DI TELLA)	Reference page and line number adjusted (page 12, line 46). Text expanded and supporting (very recent) references added, backed by evidence from 9 countries on adaptation implementation.

#	Chapter	From Page	From Line	To Page	To Line	Comment	Response
272	6	13	27	13	33	It is not within the scope, or author expertise of Chapter 6 to be assessing the quality of climate projections, model parameters and related uncertainties. You need to avoid making statements such as '...a shortage of good quality climate data'. There is no problem with making a general statement that climate projections become more challenging at reduced spatial scales, but you must then refer the reader to section 3.2.3 of Chapter 3, which is the appropriate location in SREX where issues of model validation, downscaling, uncertainty etc are discussed. (Stocker, Thomas, IPCC WGI TSU)	Text has been deleted for reasons of length restrictions and replaced in part with new studies assessing actual country adaptation plan implementation barriers.
273	6	13	27	13	33	This misses the considerable non-climate limits. (IPCC WGII TSU)	Text/discussion deleted. See response above.
274	6	13	27	13	38	It is unclear what is an "adaptation planner." Canadian experience working with professional planners reveals that they work with the best information available, and use iterative planning (and adaptive management) processes to implementing measures. While useful where available, high-resolution climate model output is not a primary concern. A practical application of this approach is seen the City of Halifax's planning for sea level rise (see Richardson, G.R.A. 2010. Adapting to Climate Change: an Introduction for Canadian Municipalities; Natural Resources Canada, Ottawa, 40 p.). The broader principle is captured well by Hunt and Watkiss in their review of adaptation in cities (Hunt, A. and Watkiss, P. 2011. Climate change impacts and adaptation in cities: a review of the literature; Climatic Change 104, 13-49.) (CANADA)	Text/discussion deleted.
275	6	13	35	0	0	Page 13, line 35, Haasnoot et al, 2009: http://onlinelibrary.wiley.com/doi/10.1002/sd.438/abstract (NETHERLANDS)	Reference incorporated at several points. Thanks.
276	6	13	48	13	53	These limitations also create a barrier to adaptation planning and strategy developing. (CARLINO, HERNAN, UNIVERSIDAD TORCUATO DI TELLA)	Incorporated into the text. Thanks.
277	6	14	1	14	9	The PPCR is a program stream of the WB Climate Investment Funds, not the other way around as stated in the text. (CANADA)	Changed. Thanks.
278	6	14	1	14	9	Many developing countries have been working on adaptation longer than developed countries. An example is the MACCC project in the Caribbean. (IPCC WGII TSU)	Thanks. Incorporated into text, including MACCC mention.
279	6	14	2	0	0	Page 14, line 2, "the situation is often less satisfactory", consider rephrasing (NETHERLANDS)	done
280	6	14	2	14	2	It would be preferable to more specifically indicate what is meant by "much less satisfactory." (IPCC WGII TSU)	done
281	6	14	4	14	4	Please point the reader towards specific case studies within Chapter 9. (Stocker, Thomas, IPCC WGI TSU)	done
282	6	14	4	14	4	Specific relevant case studies from chapter 9 should be cited. (IPCC WGII TSU)	done
283	6	14	6	14	7	Is this referring to DRR? In the case of CCA, the relevant issue is scarcity of information, guidance and tools rather than the scope at which those are utilized. (CARLINO, HERNAN, UNIVERSIDAD TORCUATO DI TELLA)	Sentence removed. Information shortfalls for adaptation decisions mentioned in various sections as cross-cutting need.
284	6	14	8	14	8	...the essential means for effectively mainstreaming.. (CARLINO, HERNAN, UNIVERSIDAD TORCUATO DI TELLA)	Done. Thanks.
285	6	14	16	14	17	May developing countries are now placing that lead at the highest possible level which can be good but at times makes the issue in need of competing for attention with other critical national issues. (CARLINO, HERNAN, UNIVERSIDAD TORCUATO DI TELLA)	Done. Text incorporated competing needs. Thanks.
286	6	14	23	14	37	Suggest moving Table 6-1 here and delete all of this text that describes the structure of the Table. (CANADA)	Done - description removed and Table heading referenced in earlier section. Concepts and headers in table expanded in 6.3.1.1.
287	6	14	24	14	29	These are all international funds with the exception of those MDTF that are being created by governments in developing countries. However, it should also be said that resources that are being made available through this channels are inadequate in relation with the needs of developing countries and insufficiency of resources remains a central issue. (CARLINO, HERNAN, UNIVERSIDAD TORCUATO DI TELLA)	Thanks - adjusted text to note international funds. Subtlety incorporated point on funding sufficiency with reference.
288	6	14	30	14	37	This list is redundant - all described in section 6.3.1.1 (Stocker, Thomas, IPCC WGI TSU)	List deleted. Table options/headers elaborated in earlier section.
289	6	14	31	14	37	As mentioned in a comment on the table insertion point, there is a previous paragraph (page 11, lines 25-36) where reference to the table might be included, the table insertion point is on page 12 lines 12-13, and then the introduction of the table does not occur more extensively until this paragraph. The author team should carefully consider how to introduce the table most logically and effectively within the section, ideally moving this bulleted list close to where the table is first mentioned and placed in the chapter text. (IPCC WGII TSU)	Done - Table headers described in 6.3.1.1 and simply referenced in this section.

#	Chapter	From Page	From Line	To Page	To Line	Comment	Response
290	6	14	31	41	37	These categories sound very similar. Additional information is needed to differentiate them. (IPCC WGII TSU)	Table headers backed by literature (new references) and revised discussion in section 6.3.1.1. Categories could be made less granular, but significant effort involved and result would amalgamate more of the references and provide less guidance for countries.
291	6	14	33	0	0	The difference between « no regret » et « win-win » strategies recommended should be explained and commented. (BOURRELIER, PAUL-HENRI, AFPCN)	Now explained in more detail and with new references in section 6.3.1.1
292	6	14	39	14	41	Please provide examples of options that address vulnerabilities. (IPCC WGII TSU)	Deleted this short paragraph.
293	6	14	40	14	40	Please point the reader towards specific case studies within Chapter 9. (Stocker, Thomas, IPCC WGI TSU)	Done.
294	6	14	40	14	40	Specific relevant case studies from chapter 9 should be cited. (IPCC WGII TSU)	This has now been completed
295	6	14	43	14	45	Tourism, transportation nation-wide, specific economic activities when they are nationally relevant, can be also included (Barros, Vicente, IPCC WGII TSU)	added
296	6	14	44	14	45	Or both (IPCC WGII TSU)	Done
297	6	14	44	14	46	Tourism, transportation nation wide, specific economic activities when they are nationally relevant, can be also included (CARLINO, HERNAN, UNIVERSIDAD TORCUATO DI TELLA)	Deleted list mentioning sectors and issues covered in Table 6-1. Otherwise, would have added these sectors to list. Thanks.
298	6	15	2	0	0	Change "most" to "many" as the appropriateness of EbA is strongly dependent on location, and is of limited relevance for many key issues such as adaptation in urban areas and of much connecting infrastructure. (CANADA)	Done
299	6	15	7	15	7	It would be preferable to more specifically indicate what is meant by "thread up and down." (IPCC WGII TSU)	reworded
300	6	15	8	15	16	These examples are relevant but so broad that they are not as informative as they could be. (IPCC WGII TSU)	Paragraph was revised and reduced significantly to reduce text length. Examples are removed. Purpose of now shortened paragraph is to illustrate horizontal and vertical linkages between sectoral responses and reference many of the Chapter 9 case studies
301	6	15	10	15	15	It is not helpful to cite IPCC 2007, please cite specific Chapter, SPM or Synthesis Report (Stocker, Thomas, IPCC WGI TSU)	Paragraph shortened and reference not needed.
302	6	15	17	0	0	The reference to Marcel and Kok 2008 does not appear in the literature list and may be a mixup: there is a noted Dutch climate scientist called Marcel Kok. (Warner, Jeroen, Wageningen University)	Deleted the text and need for this reference. See comments 300-301.
303	6	15	18	15	19	It seems that the first half of this sentence represents a conclusion of the author team's assessment. It would be helpful to characterize the author team's degree of certainty in the statement using summary terms for evidence and agreement or levels of confidence. per the AR5 Guidance Note on Treatment of Uncertainties. (IPCC WGII TSU)	Deleted this and other sentences, as per comments 300-302
304	6	15	21	15	21	"traditionally" seems an odd qualifier - do you mean "typically"? Delete or replace (Stocker, Thomas, IPCC WGI TSU)	Deleted this and other sentences, as per comments 300-303
305	6	15	26	0	0	Section 6.3.2. The citations in this section require substantial revision and attention. Many citations are not provided in the chapter's reference list, or it is unclear what source a citation corresponds to in the reference list. The missing citations must be added to the reference list. Then, all citations must be checked to ensure that they can be unambiguously linked to a reference in the reference list. (IPCC WGII TSU)	The references in this section have now been addressed. We are confident that all the references are included and are unambiguously linked to the text.
306	6	15	26	21	42	Section 6.3.2 has an almost exclusive focus on developing countries (exception of one paragraph on page 20). Are there not lessons from developed countries regarding legislation, institutions and finance that are worth sharing broadly? (CANADA)	More references have been included from a developed country context and experiences in these countries referred to in the text.
307	6	15	28	15	30	This sentence is unclear. (IPCC WGII TSU)	The introduction to this section has now been re-written to help add clarity
308	6	15	51	0	0	Define, and provide references for, the terms "medium" and "high regret adaptation options". (CANADA)	This qualification has now been removed, meaning the definition is not required
309	6	15	51	15	52	The cited chapter 9 case study should be referred to by number (9.2.12). (IPCC WGII TSU)	This reference has now been adjusted
310	6	15	51	15	54	The bottom of page 14 implies that these don't exist. (IPCC WGII TSU)	This has now been clarified
311	6	16	0	0	0	While synergies with mitigation efforts might be relevant the table has several of them included. This creates a loop with impacts of mitigation efforts on adaptation initiatives and might be read in different controversial ways, for example in hydropower or bio-fuels. (CARLINO, HERNAN, UNIVERSIDAD TORCUATO DI TELLA)	Noted and agree. However, text length and word restrictions limit elaborations. Have added the word "sustainable" to win-win energy and GHG reducing options and elaborated on adaptation goals, when text length consideration allow.

#	Chapter	From Page	From Line	To Page	To Line	Comment	Response
312	6	16	0	0	0	Forestry could have been considered in conjunction with agriculture (CARLINO, HERNAN, UNIVERSIDAD TORCUATO DI TELLA)	Sector Table includes agroforestry in many sectors and options (more added).
313	6	16	0	18	0	Table 6.3.1.3: Forestry may be included with agriculture and Tourism that is a key economic sector for many countries, especially developing ones, should be added to the infrastructure, housing, etc. (Barros, Vicente, IPCC WGII TSU)	Tourism and coastal zone linked to more sectors in Table 6.1. Due to stringent space length limitations, the sectors have been grouped and some sectors regrettably could not be covered. Grouped sectors are arranged so that similar sectors and adaptation options follow each other sequentially (e.g. unmanaged land based natural systems, forests (unmanaged and managed), managed land and food, coastal and fisheries, water, followed by the built environment - infrastructure, housing, cities, transportation, energy - all merged, and finally health.
314	6	16	4	0	0	Agree with the statement that more research is needed into how countries are implementing disaster legislation, but there is some evidence (UK and USA) that the focus is often on building institutional capacity and resilience and often a reactive posture is retained. Public engagement in risk assessment or preparedness is, at best, minimal. The challenge is how to shift the focus to disaster risk reduction (O'Brien and Read, 2005, O'Brien, 2006 and 2008; O'Brien and O'Keefe, 2010). A growing concern is that the credit crunch may delay any movement particularly in the developed world. (O'Brien, Geoff, Northumbria University)	Many thanks for these suggested qualifications and for providing these references. These are very helpful and have now been included within the chapter text.
315	6	16	4	0	0	O'Brien G. O'Keefe P. (2010) Resilient Responses to Climate Change and Variability: A Challenge for Public Policy, The International Journal of Public Policy, Vol. 6 Nos 3&4 pp 369-385 (O'Brien, Geoff, Northumbria University)	Many thanks for these suggested qualifications and for providing these references. These are very helpful and have now been included within the chapter text.
316	6	16	4	0	0	O'Brien G. (2008) UK Emergency Preparedness – A Holistic Local Response? Disaster Prevention and Management, Vol 17 No 2 pp232-243 Emerald, UK. DOI 10.1108/09653560810872532 (O'Brien, Geoff, Northumbria University)	Many thanks for these suggested qualifications and for providing these references. These are very helpful and have now been included within the chapter text.
317	6	16	4	0	0	O'Brien G. (2006) UK Emergency Preparedness – A step in the right direction? Journal of International Affairs. Spring/Summer 2006, vol. 59, no. 2. pp 63-85. Columbia University, New York, USA. (O'Brien, Geoff, Northumbria University)	Many thanks for these suggested qualifications and for providing these references. These are very helpful and have now been included within the chapter text.
318	6	16	4	0	0	O'Brien G. Read P. (2005) Future UK Emergency Management: New Wine, Old Skin? Disaster Prevention and Management, Vol. 14(3) pp 353-361. Emerald, UK. DOI 10.1108/09653560510605018 (O'Brien, Geoff, Northumbria University)	Many thanks for these suggested qualifications and for providing these references. These are very helpful and have now been included within the chapter text.
319	6	16	4	16	8	The author team should clarify why little is known about the legislation--has it not been studied even though it is available? (IPCC WGII TSU)	This has now been clarified.
320	6	16	5	16	20	Citations should be provided for these sentences, aside from the references to the chapter 9 case study. (IPCC WGII TSU)	These have now been added
321	6	16	8	16	8	The relevant case study from chapter 9 should be cited (by number). (IPCC WGII TSU)	This has now been added
322	6	16	12	16	12	Please point the reader towards specific case studies within Chapter 9. (Stocker, Thomas, IPCC WGI TSU)	This has now been added
323	6	16	12	16	12	The relevant case study from chapter 9 should be cited (by number). (IPCC WGII TSU)	This has now been added
324	6	16	16	16	16	Please point the reader towards specific case studies within Chapter 9. (Stocker, Thomas, IPCC WGI TSU)	This has now been added
325	6	16	16	16	16	The relevant case study from chapter 9 should be cited (by number). (IPCC WGII TSU)	This has now been added
326	6	16	19	16	20	The relevant case study from chapter 9 should be cited (by number). (IPCC WGII TSU)	This has now been added
327	6	16	42	0	0	This paragraph could benefit from coastal tourism development and tsunami risk management (de Jong, Carmen, University of Savoy)	Coastal tourism development given more mention in Sector Table 6.1.
328	6	17	0	0	0	Coastal Zones could have been considered in conjunction with natural ecosystems (CARLINO, HERNAN, UNIVERSIDAD TORCUATO DI TELLA)	Coastal zone issues linked to other sectors in Table. Also, see response to comment 313. Length restrictions required that many sectors be grouped. The various sectors are listed sequentially with similar sectors and sectoral adaptation responses adjacent to and following each other.
329	6	17	17	17	17	Please point the reader towards specific case studies within Chapter 9. (Stocker, Thomas, IPCC WGI TSU)	This has now been added
330	6	17	17	17	17	The relevant case study from chapter 9 should be cited (by number). (IPCC WGII TSU)	This has now been added

#	Chapter	From Page	From Line	To Page	To Line	Comment	Response
331	6	17	17	17	18	Please verify that the Philippines was one of the first and provide a citation. (IPCC WGII TSU)	The reference to the case study in chapter 9 has been kept the specific qualification related to the Philippines has been removed.
332	6	17	24	0	0	Not very clear. National Adaptation Plans of some European countries (France, UK, Germany) should be referred to. To set up this plan, France has applied an elaborate process with a large public consultation (ONERC, 2009). (BOURRELIER, PAUL-HENRI, AFPCN)	NAPs have now been referred to more clearly in a number of different sections including in 6.3, 6.5 - including a number of techniques used to development them - e.g. Risk assessment process. Considerably more literature has been added on developed work adaptation planing processes.
333	6	17	33	17	33	The author team should provide a reference for "A/RES/62/192." (IPCC WGII TSU)	This reference has now been removed as it was confusing.
334	6	17	37	17	39	The author team should clarify this sentence. What is strong? (IPCC WGII TSU)	Sentence now clarified
335	6	18	0	0	0	For many developing countries tourism is a key economic activity that has synergies in terms of adaptation with infrastructure, intelligent building, energy efficiency, etc. (CARLINO, HERNAN, UNIVERSIDAD TORCUATO DI TELLA)	Tourism has been added (along with references) to several other sectors in Table 6.1, including infrastructure and built environment, coastal zone, ecosystems.
336	6	18	13	18	13	Ibid? (IPCC WGII TSU)	Now removed
337	6	18	31	18	35	In this sentence, the author team should clarify what statements are conclusions of the author team, what information directly originates from underlying sources, and what those sources are. In particular, it should be clarified what sources are meant by "other literature," with references provided as appropriate. Additionally, it should clarified if the "inappropriate" utilization of decentralization is the reason for its lack of success. (IPCC WGII TSU)	Text on decentralisation now made clearer
338	6	18	37	18	46	It would be helpful to clarify what the conclusions of the author team are regarding the strengths and weaknesses of centralization versus devolution. (IPCC WGII TSU)	This has now been made clearer but the situation is very context specific
339	6	18	48	18	51	The author team might consider mentioning the fact that disasters also cross national borders, not just sub-national political borders, providing reference to chapter 7 sections as appropriate. (IPCC WGII TSU)	This has now been removed
340	6	18	52	18	52	It would be helpful to clarify what is meant by "civil society is flattened." (IPCC WGII TSU)	This has now been removed
341	6	19	8	19	13	It is true that insurance markets have an aversion to ambiguity, but insurability concerns have always been at stake as regards NatCat insurance. The most important remedy to insurability concerns is a steady improvement of risk knowledge and reduction, both at individual and collective level. (NUSSBAUM, Roland, Mission Risques Naturels)	We agree, and we cover this throughout the chapter in terms of the need for providing additional risk information and improving enabling environments. The need for such extended public-private partnerships is now also mentioned as a bullet in the Executive Summary.
342	6	19	21	0	0	P 19, l 21, what information is meant here? Indigneous, or scientific? (NETHERLANDS)	This has now been removed
343	6	19	24	19	24	Incomplete sentence (to support what?) we would delete "to support" and end the sentence there. (UNITED STATES OF AMERICA)	This has now been removed
344	6	19	24	19	24	In this sentence, the phrase "extreme impacts of climate change" would be more accurate if phrased as "changes in extreme events and impacts due to climate change." (IPCC WGII TSU)	This has now been removed
345	6	19	28	19	30	The author team should clarify the intended meaning of this sentence. How do the two mentions of risk differ, what is meant by environmental systems, etc.? (IPCC WGII TSU)	This has now been removed
346	6	19	28	19	49	Much of this material could be moved to Chapter 5. (IPCC WGII TSU)	This has now been removed
347	6	19	37	19	38	Review the main conclusions about the paper of Young (2010). (CHILE)	This has now been removed
348	6	19	39	19	39	Please give the year for all three of these hurricanes. (Stocker, Thomas, IPCC WGI TSU)	This has now been removed
349	6	20	1	20	1	Section 6.3.2.3. This section is overlong and repetitive; please condense. (IPCC WGII TSU)	This has now been adapted, but there are a number of key points we want to make, so we did not manage to reduce massivelv.
350	6	20	8	0	0	remove the "to" after "are considered" (FRANCE)	We have done so.
351	6	20	8	20	8	This is repeated many times. (IPCC WGII TSU)	This was said only another time in the introduction and has now been eliminated

#	Chapter	From Page	From Line	To Page	To Line	Comment	Response
352	6	20	8	20	9	It has been argued.....' - by who? Please give references. (Stocker, Thomas, IPCC WGI TSU)	We modified this to: say: "Finally, welfare economics suggest that governments are expected to stabilize the economy, e.g. by demand side interventions, when it is in disequilibrium (Muserave, 1959)."
353	6	20	9	20	16	Some of the phrasing in these sentences could potentially be interpreted as prescriptive, and some minor rewordings could help avoid misinterpretation. If the intent of the author team here is to communicate information presented in the provided citation, slightly different formulations could make this clearer. Additionally, references supporting each statement should be explicitly provided. Furthermore, it needs to be clarified what sources have "argued" the stated perspective, with references provided as appropriate. (IPCC WGII TSU)	See above modification
354	6	20	9	20	16	This ignores impacts where risks are overwhelming, such as some of the typhoons in Bangladesh. (IPCC WGII TSU)	We mention large events and spillover effects now.
355	6	20	10	20	10	...the above does do completely apply...' Please correct wording here. (Stocker, Thomas, IPCC WGI TSU)	We have done so.
356	6	20	10	20	10	This section needs editing for grammar (in this line it says "the above does do completely apply") (UNITED STATES OF AMERICA)	We have done so.
357	6	20	12	20	13	I hope that government decisions are based on more than the costs of the project; one would hope that social welfare would be a consideration. (IPCC WGII TSU)	Yes, and said in the paragraph
358	6	20	12	20	15	It is policy prescriptive to state what governments "should" or "should not" do. Please rephrase. (Stocker, Thomas, IPCC WGI TSU)	Ok, and rephrased: "welfare economics suggests.."
359	6	20	22	20	23	This is not an example of moral hazard – this is something that leads to moral hazard. The fact that governments rely on external support to bail them out means that they don't have an incentive to try to reduce the risks they face, because they expect someone else to pay for the damages. Line 53-54 is a more accurate way to talk about moral hazard. (UNITED STATES OF AMERICA)	Yes, and the provision of a disincentive leads to moral hazard. This is corrected now.
360	6	20	27	20	28	The author team should clarify how "assessing and managing risks over the whole spectrum" is different from risk neutrality. (IPCC WGII TSU)	Good point, we now say: "Consequently, a risk neutral stance, implying the consideration of risk broadly in terms of means (the statistical expectation) is sufficient..."
361	6	20	32	20	36	Citations should be provided for these sentences. Additionally, the phrasing of the final sentences of the paragraph could potentially be interpreted as prescriptive, and rewording them could help avoid misinterpretation. The author team should also clarify what is meant by "systematic estimate of risk." (IPCC WGII TSU)	Deleted the last sentence with the systematic estimate
362	6	20	33	20	34	You must cite multiple lines of evidence supporting the significant statement that climate change will increase the disaster burden, or at least, refer to the appropriate section of SREX where this assessment is given. (Stocker, Thomas, IPCC WGI TSU)	We now have taken this out, as this is too long here, and we discuss the implications of climate change and risk elsewhere in the chapter.
363	6	20	33	20	36	Remove the last two sentences of the paragraph : they say nothing more than what is explained at length in the report, which is already very long. (FRANCE)	We reduced some of the last sentences
364	6	20	35	20	35	Please refer the reader to Chapter 3, Section 3.2.3 in relation to uncertainty associated with climate change and extreme events. (Stocker, Thomas, IPCC WGI TSU)	We now have taken this out, as this is too long here, and we discuss the implications of climate change and risk elsewhere in the chapter.
365	6	20	43	0	0	you could add "...improve awareness and perception of drought" (de Jong, Carmen, University of Savoy)	There is very limited space to go into detail of specific hazards
366	6	20	53	0	0	rural "and urban areas (regional approach) (de Jong, Carmen, University of Savoy)	There is very limited space to go into detail of specific hazards
367	6	21	0	0	0	Need to explicitly acknowledge that it is not cost effective for governments to get insurance against the most extreme risks (the tail of the probability curve). These risks need to be dealt with in other ways. (UNITED STATES OF AMERICA)	Good point, and we added as follows: "As a general statement, the strategy involves transferring a layer of risks ranging from infrequent risk (such as events with a return period of more than 10 years) up to risks associated with 150 year return periods, beyond which it will become very costly to insure (Cummins and Mahul, 2009). One key element is to define the financial vulnerability indicating the inability to bear losses with a certain return period (Mechler, 2010).."

#	Chapter	From Page	From Line	To Page	To Line	Comment	Response
368	6	21	0	21	0	On 6.3.2.1 Legislation and Compliance Mechanisms: There are few references to CCA legislation and its enforcement. Being a crucial issue in adaptation, I suggest further consideration even if there are scarce examples to deal with (for example, land use planning, forestry and deforestation, biodiversity protection etc.). (Barros, Vicente, IPCC WGII TSU)	This is beyond the budget planning, and we discuss legislation elsewhere in the chapter, see 6.4.1
369	6	21	2	21	3	Clarify that they are transferring some of their risks. These insurance products do not have complete coverage; Haiti's insurance payout from the CCRIF following the earthquake was only about \$7M. These payouts are important but it should be clarified that they can't fully transfer all risks. (UNITED STATES OF AMERICA)	Yes, and we say so, see above comment.
370	6	21	4	21	4	Budgetary provision is in most cases of a legislative nature and as such not complementary but inherently legislative. (CARLINO, HERNAN, UNIVERSIDAD TORCUATO DI TELLA)	The line reference seems off here??
371	6	21	5	21	5	There is a risk in categorizing these elements as being a technical infrastructure as they are essentially of a political nature. (CARLINO, HERNAN, UNIVERSIDAD TORCUATO DI TELLA)	The line reference seems off here??
372	6	21	11	21	36	A box should not be used simply to repeat material from another study. Like all other text in an IPCC assessment, the paragraphs in this box need to be supported to the extent possible with references to original sources. There is not a single reference cited in this box. On line 27 you write that 'The FONDEN program started well, although in recent years some concerns have been raised.....' - concerns were raised by who? Give references. (Stocker, Thomas, IPCC WGI TSU)	We reworded, but Cardenas is the only key peer reviewed reference at hand.
373	6	21	15	21	15	There are few references to CCA legislation and its enforcement. Being a crucial issue in adaptation suggest further consideration even if there are scarce examples to deal with (for example, land use planning, forestry and deforestation, biodiversity protection etc.). (CARLINO, HERNAN, UNIVERSIDAD TORCUATO DI TELLA)	The line reference seems off here??
374	6	21	18	0	0	"... relieves..." -> "... which relieves..." (FRANCE)	Added "which" to clarify
375	6	21	27	21	27	"concerns have been raised" by whom? Please cite. (Stocker, Thomas, IPCC WGI TSU)	The text has been adapted and clarified
376	6	21	43	0	0	§ 6.3.3. is not appropriately reflected in the executive summary of this chapter (NUSSBAUM, Roland, Mission Risques Naturels)	This has been changed now.
377	6	21	43	0	0	Section 6.3.3. The citations in this section require substantial revision and attention. Many citations are not provided in the chapter's reference list, or it is unclear what source a citation corresponds to in the reference list. The missing citations must be added to the reference list. Then, all citations must be checked to ensure that they can be unambiguously linked to a reference in the reference list. (IPCC WGII TSU)	This has been done.
378	6	21	46	0	0	P21, l 46, specify hard and soft (NETHERLANDS)	This is explained in 6.5.2
379	6	22	1	0	0	Building a culture of safety, does not really talk about culture but about better information provision. It is not clear that one can 'build' a culture, only 'promote'. Cultural anthropology has a lot to say about the changeability of core value systems. The importance of culture is not well treated in the chapter as a whole! The 'Culture and Catastrophe' book (Hoffmann and Oliver-Smith 2003) and also Bankoff et al (2003) are good introduction to this aspect. Raising public awareness certainly is of use, but whether something is actually done with that awareness depends on their value systems and action perspective. (Warner, Jeroen, Wageningen University)	The subsection title was given to us, and culture is meant here in a broader sense, not really taking about cultural anthropology by Mary Douglas. We agree that the link from raising awareness to changed behaviour is a tenuous and difficult one, which however is beyond the focus of this chapter. Ch. 8 goes more into this. I added just a little bit to 6.5.1
380	6	22	1	22	9	Building a culture of safety: this is an area where governments could partner with industry in terms of cross-learning, as safety and safety behaviour are critical for business success. (International Petroleum Industry Environmental Conservation Association (IPIECA))	We discuss this in 6.2.2 more broadly in terms of PPPs and CSR.
381	6	22	3	22	9	"Building a culture of safety" also requires public education / awareness raising. (UNITED STATES OF AMERICA)	Yes, this is a broad field, and we added: "A key ingredient is also appropriate public education and awareness raising"
382	6	22	4	22	6	Early warning systems do much more than provide information on land use. (IPCC WGII TSU)	added: "in disaster management in terms of providing timely warning to the exposed and thus allowing for quick response"
383	6	22	14	22	14	Chapter 3 do not discuss 'risk'. Please remove the reference to chapter 3 here. (Stocker, Thomas, IPCC WGI TSU)	Yes, and done.
384	6	22	14	22	16	It is not clear that chapters 2 and 3 are the best reference here. An extensive discussion of risk and its assessment occurs in chapter 1. (IPCC WGII TSU)	Good, chapter 1 mentioned now.
385	6	22	19	22	19	Not discussed in Chapter 5. Please remove this reference. (Stocker, Thomas, IPCC WGI TSU)	Thanks, and this is removed.
386	6	22	19	22	19	Specific relevant sections in chapter 5 should be referenced here. (IPCC WGII TSU)	Thanks, and this is removed.
387	6	22	26	22	26	"is recommended" is policy prescriptive. Please make it clear if that is the recommendation of the authors cited, or rephrase. (Stocker, Thomas, IPCC WGI TSU)	Good, and changed to "is necessary".
388	6	22	27	22	27	The sentence might be clearer without "today." (IPCC WGII TSU)	Right, this is deleted.

#	Chapter	From Page	From Line	To Page	To Line	Comment	Response
389	6	22	31	22	31	This lists the following "exposed elements": persons, buildings structures, infrastructure (e.g. water and sewer facilities, roads and bridges) or agricultural assets. "Buildings structures" are types of infrastructure, and don't need to be listed separately. Livelihoods, ecosystems / natural infrastructure, and ecosystem services should be added to the list of things that are exposed. (UNITED STATES OF AMERICA)	Rephrased to "This may relate to persons, buildings, infrastructure (e.g. water and sewer facilities, roads and bridges), agricultural assets, livelihoods, ecosystems, natural infrastructure, and ecosystem services in harm's way"
390	6	22	36	22	38	This sentence has multiple spelling and grammatical errors. (UNITED STATES OF AMERICA)	Yes, and we attended to this.
391	6	22	41	22	42	But some elements are monitored; it would be helpful to identify those that are (demographics, etc.) and those that generally are needed. (IPCC WGII TSU)	While useful, this seems country and location-specific, and generalizations including data quality are difficult
392	6	22	47	0	0	Hydro-geomorphological processes more likely than geological in this context (de Jong, Carmen, University of Savoy)	Comment unclear
393	6	22	49	22	54	What about international databases (EM-DAT)? (IPCC WGII TSU)	This is mentioned now.
394	6	22	51	22	52	"...data records and reference data point for extreme events, such as a 100-year event" needs to be supported with a cross-reference to section 3.2.1 of Chapter 3, which deals with observational limitations. (Stocker, Thomas, IPCC WGI TSU)	A reference has been added.
395	6	22	53	22	53	Please clarify what you mean by 'unusual donor support'. (Stocker, Thomas, IPCC WGI TSU)	This has been eliminatd now.
396	6	22	53	22	53	The author last name in this citation should be "Guha-Sapir." (IPCC WGII TSU)	Corrected.
397	6	23	4	23	6	P 23, lines 4-6, why should databases be the same, if they are consistently used within the country, it is no problem to make national assessments. (NETHERLANDS)	ok, yes, but there are regional and international mechanisms to respond to events (such as the EU solid fund, or int. Relief funding) that need a common basis to determine level of interventions
398	6	23	4	23	14	P23, Line 4-14 consider rewriting, too long sentences (NETHERLANDS)	We attended to this.
399	6	23	11	0	0	P23, l11, please explain indirect and flow-on, does this also include positive economic effects of disasters? (NETHERLANDS)	We replaced by follow on socio-economic effects, which is better to understand.
400	6	23	17	0	0	The « retours d'expérience » are the most efficient way to dévelop the culture of risk. See OG7. The mission report of Conseil général de l'Environnement et du Développement Durable after the disaster of Xynthia is a good example (CGEDD, 2010). (BOURRELIER, PAUL-HENRI, AFPCN)	"Retours d'experience" referenced in text , including receptivity to change following disasters, link to message in Chapter 9 case studies. Example provided re: risk reduction.
401	6	23	21	0	0	P23, l21, what is difference between mitigating the impacts of disasters and the latter part of the sentence. It appears to me this is also mitigation. And do the authors mean climate or weather? (NETHERLANDS)	Replaced word mitigate (for disasters) and shortened sentence - deleted last part.
402	6	23	21	23	21	In relation to EWS you could refer the reader to case study 9.2.13 (Stocker, Thomas, IPCC WGI TSU)	Done. Thanks.
403	6	23	21	23	24	Some of the phrasing in this sentence could potentially be interpreted as prescriptive, and minor rewording could help avoid misinterpretation. If the intent of the author team here is to communicate information presented in the provided citations, a slightly different formulations could make this clearer. Additionally, because the term "mitigation" is being used here in relation to disasters (instead of directly in relation to climate change), it would be preferable to avoid use of the term. (IPCC WGII TSU)	Done - reworded with more reference to case study 9.2.13 on EWS.
404	6	23	23	23	26	At this point in time in many developing countries the key issue is mostly achieving national level coordination in evolving from the actual system where there is scarce coordination, competencies are fragmented, there insufficient awareness and at times not even a unique vision but differing visions in different agencies. (CARLINO, HERNAN, UNIVERSIDAD TORCUATO DI TELLA)	comment does not refer to this section
405	6	23	28	0	0	P23, L 28, how does a early warning system for climatic events look like, and on what time scale would this function? (NETHERLANDS)	To meet length restrictions, referred to case study 9.2.13 with additional mention of creeping hazards and combination hazards. Case study provides several excellent examples.
406	6	23	34	23	50	The author team might consider citing case study 9.2.13 here. (IPCC WGII TSU)	Done. Thanks. Case study makes many of the needed points for this first paragraph.

#	Chapter	From Page	From Line	To Page	To Line	Comment	Response
407	6	23	38	23	39	We suggest stressing the importance of linking early warning systems to preparedness and contingency planning processes. Suggested text includes: The success of an early warning system depends on the extent to which the warnings trigger effective response measures (van Aalst, 2009; Wimbi, 2009). This requires systematic linkages and integration between early warning and contingency planning processes (Choularton, 2007). Reference: Choularton, R.J. (2007) "Contingency planning and humanitarian action: A review of practice", Overseas Development Institute: London.) "Ethiopia's PSNP, employs around six million people in workfare activities predominantly in environmental rehabilitation, reversing the severe land degradation, which renders Ethiopia more vulnerable during the heavy rainfall season and the onset of drought." (Larissa Pelham, Edward Clay, and Tim Braunholz (2011) "Natural Disasters: What is the Role for Social Safety Nets?", World Bank (World Food Programme (WFP))	Thanks. This example (Ethiopia) and reference have been incorporated into the text. Will need to upload reference to grey literature depository.
408	6	23	42	23	42	Given two Auld (2008) citations in the reference list, this citation needs to be clarified. (IPCC WGII TSU)	Done
409	6	23	47	23	48	P23, L47-48, can you give an example of how to "interpret the general impacts in simple and meaningful terms" (NETHERLANDS)	text reworded to refer to relevant impacts and example provided.
410	6	23	49	23	49	Given two Auld (2008) citations in the reference list, this citation needs to be clarified. (IPCC WGII TSU)	Done
411	6	23	54	24	1	NMHS are not UN partners; they are national services. (IPCC WGII TSU)	adjusted text to delete mention of UN partners
412	6	24	4	0	0	P 24, l 4, consider other word for locust (NETHERLANDS)	Reworded to pests and locust invasions included as an example (references used all refer to locust and desert locust prediction programs)
413	6	24	5	24	7	Here you should also refer the reader to Section 3.1.3 of Chapter 3, which discusses 'compound hazards'. (Stocker, Thomas, IPCC WGI TSU)	Done.
414	6	24	5	24	7	The author team should more clearly specify what is meant by "inherent vulnerability." (IPCC WGII TSU)	replaced with "existing vulnerabilities"
415	6	24	9	24	12	Some of the phrasing in this sentence could potentially be interpreted as prescriptive, and minor rewording could help avoid misinterpretation. If the intent of the author team here is to communicate information presented in the provided citations, a slightly different formulations could make this clearer. (IPCC WGII TSU)	Done - reworded. Thanks.
416	6	24	14	24	16	It would be preferable to provide a citation for this sentence. (IPCC WGII TSU)	Done.
417	6	24	46	24	46	The approach to finance and budget allocation seems to be strongly permeated by DRR rationale. (CARLINO, HERNAN, UNIVERSIDAD TORCUATO DI TELLA)	Yes, we agree to this statement.
418	6	24	50	24	50	"National climate disaster .." should be "National climate-related disaster .." (Stocker, Thomas, IPCC WGI TSU)	Done.
419	6	24	50	24	53	It is not accurate to say that these are "ineffective" in isolation. Building codes, measures to protect natural ecosystems, etc, can have some benefit in isolation – just not as much as in concert with other measures. Change "ineffective" to something else like "minimally effective". (UNITED STATES OF AMERICA)	Done - reworded.
420	6	24	51	24	52	In this sentence, the phrase "extreme climate impact events" would be more consistent with the glossary and usage in other chapters if replaced by "climate or weather events with extreme impacts." (IPCC WGII TSU)	Done.
421	6	25	1	25	5	The economic approach may be appropriate at different decision making levels. However, basic principles should be upheld when government decisions are made. Perhaps further clarification is needed in the text in this paragraph. (CARLINO, HERNAN, UNIVERSIDAD TORCUATO DI TELLA)	We agree and we discuss key principles in 6.4.3 "Finance and Budget allocation"
422	6	25	5	26	26	To Chapter 6 paragraph 6.3.3.2.1. (Global Climate Observing System Steering Committee)	Sorry - unclear what is intended here
423	6	25	5	26	26	In order to include information about future climate in building codes, one ought to evaluate different types of uncertainty . For this purpose the risks of confidens in the climate projection output could be estimated. In (Galuk, 2011) this problem was solved using fuzzy set theory. (Global Climate Observing System Steering Committee)	Brief text has been added to mention uncertainties, new approaches to adaptation options and uncertainties in Sections 6.3.1.1-6.3.1.2, including reference to maladaptation and uncertainties, flexible adaptation, etc. Text added to reference Chapter 3 - section 3.2.3 on projected changes and uncertainties and 3.3-3.4 on changes in extreme weather/climate phenomena and uncertainties.
424	6	25	7	25	9	This is a list of apples and oranges: Climate change has the potential to negatively impact the safety of existing infrastructure, increase the frequency of weather-related disasters, increase premature weathering regionally, change engineering and maintenance practices and to alter building codes and standards where they exist. Increased frequency of weather-related disasters is one of the ways the climate is changing; increased premature weathering is a result of things like the change in disaster frequency; changes in engineering practices are a way that people respond to these impacts. These things are not all direct impacts of climate change and don't belong together in a list. (UNITED STATES OF AMERICA)	Have separated the direct impacts of extremes from the more indirect or creeping impact on vulnerability to extremes (premature deterioration). Text shortened as well.

#	Chapter	From Page	From Line	To Page	To Line	Comment	Response
425	6	25	7	25	12	P25, L 7-12, consider moving to chapter 1 (NETHERLANDS)	Rewritten and shortened text. Very difficult to change Table of Contents at this point.
426	6	25	7	25	12	Both of these sentences are overly sweeping, and the author team should consider clarifying the logical linkages among the different parts of the sentences and between the sentences. (IPCC WGII TSU)	Rewritten and shortened text - direct impacts from extremes separated from indirect creeping impacts.
427	6	25	9	25	10	Reword needed to better reflect the assessment given in Chapter 3: 'With projected increases in the magnitude and/or frequency of some extreme events in many regions (see Chapter 3), small increases in climate' (Stocker, Thomas, IPCC WGI TSU)	Done. Thanks.
428	6	25	18	0	0	P25, l 18, adaptive capacity is used in different way than how it is defined in this report. (NETHERLANDS)	Reworded.
429	6	25	22	0	0	P25, l 22 skip: potentially, dramatic, L23 poor, by damaged infrastructure (NETHERLANDS)	done, thanks
430	6	25	22	25	24	The juxtaposition of the words "potentially" and "dramatic" within the context of this sentence should be clarified. How can potential increases in damage definitely lead to a dramatic increase in needed resources? (IPCC WGII TSU)	changed wording
431	6	25	27	25	27	The proposition should not be to plan and budget for extremes but to plan and budget on efforts to enhance adaptive capacity. (CARLINO, HERNAN, UNIVERSIDAD TORCUATO DI TELLA)	not this section
432	6	25	28	25	29	The author team should clarify what is meant by "development of statistical information on future climate change events." (IPCC WGII TSU)	Done.
433	6	25	28	25	47	development of statistical information should be completed by "and adequate tools (e.g. non-stationary extreme value analysis methods)". E.g. : Kysely et al. (2010), Estimating extremes in climate change simulations using the peaks-over-threshold method with a non-stationary threshold Global and Planetary Change 72 55–68 or Kallache, M., M. Vrac, P. Naveau, and P.-A. Michelangeli (2011), Nonstationary probabilistic downscaling of extreme precipitation, J. Geophys. Res., 116, D05113, doi:10.1029/2010JD014892. (International Petroleum Industry Environmental Conservation Association (IPIECA))	Added reference to Chapter 3 and its discussion on regionalization, treatment of uncertainties, trends, tools, etc. A Kysely reference is used in Chapter 3.
434	6	25	39	0	0	P25, L 39, include "weather related" before risk (NETHERLANDS)	Done.
435	6	26	1	26	6	Reference could also be made to the incorporation of climate change into guidelines for environmental assessments of major projects in Canada. This is done to ensure that the engineering design is appropriate and that environmental effects of project will be minimized under a changing climate. See Romanovsky et al (2007) and Furgal and Prowse (2008) for a discussion of the approach used in Canada and also documents from the Canadian Environmental Assessment Agency: Romanovsky, V.E., Gruber, S., Instanes, A., Jin, H., Marchenko, S.S., Smith, S.L., Trombotto, D., and Walter, K.M. 2007. Frozen Ground, Chapter 7. In UNEP Global Outlook for Ice & Snow. United Nations Environment Program. pp. 181-200. Furgal, C., and Prowse 2008. Northern Canada. In From Impacts to Adaptation: Canada in a changing climate 2007. Government of Canada, Ottawa. pp. 57-118. Lee, R.J. 2000. Climate Change and Environmental Assessment Part 1: Review of Climate Change Considerations in Selected Past Environmental Assessments. Prepared for the Research and Development Monograph Series, 2000 (link on CEAA web site http://www.ceaa-acee.gc.ca/default.asp?lang=En&n=F2F22AF3-1&toc=show&offset=1) Federal-Provincial-Territorial Committee on Climate Change and Environmental Assessment 2003. Incorporating Climate Change Considerations in Environmental Assessment: General Guidance for Practitioners (Link on CEAA web site http://www.ceaa-acee.gc.ca/default.asp?lang=En&n=A41F45C5-1&offset=&toc=hide) (CANADA)	Thanks. Text expanded to include Eas and mention of national environmental assessment agencies. Supporting documents used were not country-specific (e.g. OECD, ProVention documents).
436	6	26	2	26	2	Change "melting permafrost" to "thawing permafrost" in order to use correct terminology. "Melting permafrost" implies that there is a complete change of phase from solid to liquid which is not the case as only the ice in the soil changes phase while the soil particles remain solid. See Grosse et al. 2010 for a discussion of this: Grosse, G., Romanovsky, V., Nelson, F.E., and Lewkowicz, A.G. 2010. Why permafrost is thawing, not melting. EOS Transactions of the American Geophysical Union, 91(9): 87 (CANADA)	thanks - will do.
437	6	26	5	26	6	The relevant case study from chapter 9 should be cited by number, 9.2.6. (IPCC WGII TSU)	Done.
438	6	26	6	26	6	Reference could also be made to papers that show how some of these tools are applied to engineering design projects, see for example Hayley and Horne (2008): Hayley, D.W., and Horne, B. 2008. Rationalizing climate change for design of structures on permafrost : a Canadian perspective. In Proceedings of Ninth International Conference on Permafrost. Edited by D.L. Kane and K.M. Hinkel. Fairbanks. Institute for Northern Engineering, University of Alaska Fairbanks, Vol.1, pp. 681-686. (CANADA)	Reference used. Thanks. Need to add to grey literature archive.
439	6	26	8	26	8	Is it really accurate to say that in developing countries structures are often built using the "best" local practices? In places with large informal/squatter populations, most structures are not using "best" local practices. "Prevalent" local practices might be better. (UNITED STATES OF AMERICA)	Done - incorporated new wording and added content on risks of prevalent local practices. Thanks.
440	6	26	8	26	22	Need to acknowledge the importance of land tenure – people without clear title to their property will not want to make investments in increased resilience and better structures. (UNITED STATES OF AMERICA)	Thanks - have expanded text on this issue and rapid urban expansion to third paragraph.

#	Chapter	From Page	From Line	To Page	To Line	Comment	Response
441	6	26	13	26	13	The relevant case study or studies from chapter 9 should be cited by number. (IPCC WGII TSU)	Done.
442	6	26	24	26	48	Most of this text is repeated from elsewhere. (IPCC WGII TSU)	Tightened the text to allow lead-in to other sections and reference Chapter 9 case study.
443	6	26	29	0	0	Risk management/adaptation options: Low-regrets options that reduce vulnerability and exposure across a range of trends in droughts include: Productive safety net and social protection schemes; Risk pooling at regional or national level to reduce financial exposure; Early warning systems; Integration of seasonal forecasts with drought projections. Specific strategies to tackle the effects of drought given uncertainties include: Land rehabilitation, terracing and reforestation ; Enhancing water catchment and irrigation techniques; Enhancing the quality of infrastructure to improve access to markets; Introducing drought-resistant crop varieties (World Food Programme (WFP))	We discuss many of these options and others in table 6.1
444	6	26	31	0	0	P26, L31 consider giving a list of parts of livelihoods that are vulnerable (food, housing, income, etc) (NETHERLANDS)	This has been added
445	6	26	35	26	36	Avoid using the phrase "most vulnerable countries" as the IPCC has not defined these nor identified methods for defining these. The phrase has been the subject of considerable discussion under the UNFCCC. The point can be made equally well by using "vulnerable countries". (CANADA)	Changed now
446	6	26	37	26	37	Lack of information should be included in the list (along with paucity of skill-sets, resources and access to assets). (UNITED STATES OF AMERICA)	This has been added
447	6	26	41	26	49	Please cite a specific IPCC chapter - IPCC 2007 is not a useful reference. (Stocker, Thomas, IPCC WGI TSU)	Done
448	6	26	44	0	0	P26, L 44, skip "for many" (NETHERLANDS)	This has been changed now.
449	6	26	45	26	49	Specific relevant chapters of the Fourth Assessment Report should be cited. (IPCC WGII TSU)	Done
450	6	27	1	27	2	The relevant case study from chapter 9 should be cited by number. (IPCC WGII TSU)	Done
451	6	27	4	27	4	It would be preferable to use the term "events" or "hazards" here instead of "shocks" for consistency. (IPCC WGII TSU)	Done
452	6	27	4	27	5	Weather indexed crop insurance is not necessarily a social safety net, especially if farmers are paying their own premiums. (UNITED STATES OF AMERICA)	Yes, I deleted from list.
453	6	27	9	27	9	It would be preferable to use the term "events" or "hazards" here instead of "shocks" for consistency. (IPCC WGII TSU)	Done
454	6	27	14	27	16	The author team should clarify if "dependence on agriculture" applies to poor rural areas and urban centers equally. (IPCC WGII TSU)	This has been clarified
455	6	27	19	27	19	The author team should clarify what is meant by "smallest weather irregularity." (IPCC WGII TSU)	This has been clarified
456	6	27	21	28	2	These two paragraphs are heavily dependent on a single source (IRI 2006) for many strong statements. It is not to be found in the reference list. Please provide this reference and more lines of evidence. (Stocker, Thomas, IPCC WGI TSU)	Additional journal references added for support, text rearranged and clarifications added
457	6	27	25	27	26	Suggest also looking at IFPRI study findings on food security and climate change. See http://www.ifpri.org/publication/food-security-farming-and-climate-change-2050 and http://www.ifpri.org/publication/climate-change-impact-agriculture-and-costs-adaptation (UNITED STATES OF AMERICA)	Thanks. Good and relevant information. Mentioned CGIAR, which is parent organization.
458	6	27	27	27	27	Please cite a specific IPCC chapter - IPCC 2007 is not a useful reference. (Stocker, Thomas, IPCC WGI TSU)	This has been added
459	6	27	30	27	32	P27, L 30-32, this is mitigation of GHGs, can be left out. (NETHERLANDS)	OK, taken out
460	6	27	31	27	32	It would be helpful to indicate what is meant by "many countries"--how many, and where? (IPCC WGII TSU)	This has been clarified
461	6	27	37	27	37	Chapter 9 will be much more usefully integrated into the entire report if specific case-studies are referred to by other chapters. (Stocker, Thomas, IPCC WGI TSU)	Specific case has been referred to now.
462	6	27	37	27	38	Specific relevant sections in chapters 2, 5, and 9 should be referenced here. (IPCC WGII TSU)	Cross referencing in this section has been improved.

#	Chapter	From Page	From Line	To Page	To Line	Comment	Response
463	6	27	40	28	2	We recommend adding an example of the challenges in using climate information to inform food security planning and to highlight the need for increased capacity to monitor and interpret climate information in the most vulnerable regions of the world. Suggested text: "Assessing food security in the most vulnerable regions requires consideration of multiple socio-economic and environmental variables. Early identification of populations at risk is important for timely and appropriate action. In large parts of sub-Saharan Africa, the most vulnerable depend on rainfed agriculture, so it is important to monitor the climate and use forecast information as inputs for food security and vulnerability analysis. "Under climate change, it is expected that food security will be affected by climate variability, erratic rainfall and more frequent extreme events. Satellite and ground rainfall data can provide information about hazards as well as information about expected climate-related events. There is a need for increased capacity for rainfall observation, forecasting, data management and modelling applications, especially in the most vulnerable regions." Reference: Verdin, J., Funk, C., Senay, G. and Choularton, R. (2005) Climate science and famine early warning: Philosophical Transactions of the Royal Society B. 360:2155–2168,) (World Food Programme (WFP))	Thanks. Information and reference have been incorporated into text.
464	6	27	44	27	46	This significant statement that food security is caused by climate extremes, and therefore linking increasing child malnutrition with climate extremes, needs to be supported by citing multiple lines of evidence. This IRI reference is not even found in the reference list, and is in any case I suspect a grey secondary source, and original sources/studies should be referred to where ever possible. (Stocker, Thomas, IPCC WGI TSU)	Text revised to include more text on social factors, added journal references to support statements.
465	6	27	44	27	46	Please check the numbers as India has more under-nourished children than SubSaharan Africa. The citation should be WHO not IRI. (IPCC WGII TSU)	This has been checked
466	6	27	49	27	53	This is repeated many times. (IPCC WGII TSU)	This has been qualified.
467	6	28	4	28	9	This paragraph contradicts several other chapters, mostly Chapter 1, that state that social factors are the determinants of vulnerability (particularly as defined in this report). There may be good reasons for desiring better quality climate projections, but defining the most vulnerable is not one of them. (CANADA)	Revised text and new references put greater emphasis on social factors, especially for food security analyses. Text and supporting peer-review journal references highlight the need for current, forecast and future climate information as inputs to vulnerability and especially, food security analyses. Text has been rearranged and supporting peer-reviewed literature added.
468	6	28	4	29	9	The author team should indicate more clearly that there are limitations in the information that can be provided by downscaling and in its certainty. (IPCC WGII TSU)	With further revision, this has been done
469	6	28	5	28	5	What do you mean with "...the limited human resource capacity to downscale global and regional projections...". This is not a limitation that is identified by chapter 3 when they assess issues with downscaling, most probably because downscaling of projections for all regions are completed in a few large modelling centres where 'human capacity' is not an issue. More prominent issues are the computational requirements, and the fact that local scale observations are needed to calibrate/validate downscaling results. Chapter 6 must avoid making vague comments regarding climate projections/uncertainty that are not the result of any expert assessment. (Stocker, Thomas, IPCC WGI TSU)	This has been done

#	Chapter	From Page	From Line	To Page	To Line	Comment	Response
470	6	28	11	28	21	To date, only 45 LDCs have submitted NAPAs. As at least two of the remaining countries are close to submitting, this number may change again before the publication date. With regard to the tendency to focus on a project rather than a programme approach, this is changing and some countries are trying to develop a programmatic approach - this trend should be reflected. Reference for this is Least Developed Countries Expert Group (LEG), 2009. National Adaptation Programmes of Action: Overview of preparation, design and implementation strategies and submission of revised project lists and profiles. LDC Expert Group, Bonn (http://unfccc.int/resource/docs/publications/ldc_tp2009.pdf). The GEF is also now encouraging this approach and has prepared guidance material (http://www.thegef.org/gef/sites/thegef.org/files/publication/Programmatic_Approach.pdf) With regard to the concerns raised on means to fund NAPA activities, I have searched the UNFCCC 2008 reports cited and the UNFCCC 2009 report listed in the references, and cannot find material related to this statement. The authors should reconfirm the sources for this. There is also somewhat contradictory evidence which indicates that several donors have confidence in the NAPAs and the LDCF: the most recent report of the GEF on the Least Developed Countries Fund (which funds the bulk of work on NAPAs) indicates that as of July 2010, 36 NAPA projects had been approved (reference: Global Environment Facility (GEF), 2010. Report of the GEF to the sixteenth session of the Conference of the Parties to the United Nations Framework Convention on Climate Change. GEF: Washington. (http://www.thegef.org/gef/sites/thegef.org/files/documents/document/GEF_COP16_Report.pdf). Also, several donors made significant contributions to the LDCF in 2010. The latest status report from the GEF (October 2010) indicates that the LDCF had received \$262M in pledges. Finally, while the section discusses the generic value of the NAPAs in reducing vulnerability, it does not mention that the majority of NAPAs identify some aspect of DRR among their top priorities. The authors should consider including the numbers and types of priorities identified in NAPAs that relate directly to hazards. Summaries of all NAPAs and their priorities can be found at http://unfccc.int/cooperation_support/least_developed_countries_portal/napa_priorities_database/items/4583.php (CANADA)	Text of NAPAs in this section has been referred to more carefully and new references and cross-referencing has been added. Thank you though for the information provided, this is very helpful.
471	6	28	24	30	27	Note that ecosystem-based adaptation has not been used in previous IPCC reports and is not defined in the glossary of this special report. It is worth defining explicitly, as the definition inferred from this section seems considerably broader than it is used in recent literature. (CANADA)	the whole section has been rewritten to emphasise the relevance of EbA
472	6	28	32	28	44	The author team should consider using summary terms for evidence and agreement to characterize the information described here, per the AR5 Guidance Note on Treatment of Uncertainties. (IPCC WGII TSU)	This has now been addressed
473	6	28	36	28	36	Because the term "mitigating" is being used here in relation to disasters (instead of directly in relation to climate change), the author team should consider avoiding use of the term. (IPCC WGII TSU)	the use of the term 'mitigation' has been made consistent, and avoided using this when it is used in the context of reducing risk
474	6	28	38	28	38	Because the term "mitigation" is being used here in relation to disasters (instead of directly in relation to climate change), the author team should consider avoiding use of the term. (IPCC WGII TSU)	the use of the term 'mitigation' has been made consistent, and avoided using this when it is used in the context of reducing risk
475	6	28	48	29	9	Revise title to read "Economic value" as this box does not try to capture the very significant non-market value of ecosystem services. Remove the 4th example (2004 tsunami) to retain the focus on climate related extreme events and disasters. (CANADA)	there are also other benefits referred to - eg reduction in the loss of lives
476	6	29	5	29	7	It would be helpful for the author team to provide a bit more detail regarding the extent to which the two villages are similar, as context for the mentioned difference in mangrove and forest density. (IPCC WGII TSU)	example changed to that from Orissa, India
477	6	29	7	0	0	The conflict between tourism and coastal development in general with widespread removal of mangroves should be evoked here (de Jong, Carmen, University of Savoy)	This comment has been included and reflected more fully.
478	6	29	23	0	0	Should read "Stockholm" (CHILE)	thanks
479	6	29	34	29	36	The author team should consider using summary terms for evidence and agreement to characterize the information described here, per the AR5 Guidance Note on Treatment of Uncertainties. (IPCC WGII TSU)	This has now been addressed
480	6	29	43	30	5	Box 6-5 does not work well as only the second bullet seems to relate to the title. SEA / EIA do not necessarily equate with EbA. The Vietnam, Brazil and Tajikistan examples make no link to disasters. As the chapter as a whole effectively points out the important role of ecosystem services in DRR and CCA, this Table may not be necessary. (CANADA)	explanation for the box modified to better reflect examples of CC mitigation and adaptation considerations
481	6	30	0	32	0	It looks like the text has been pasted, and one version has been modified, but the original version has not been deleted. See for instance line 37 on page 30 and line 45 on page 31, I40p30 and I51p31, etc. (FRANCE)	This has been attended to and deleted.

#	Chapter	From Page	From Line	To Page	To Line	Comment	Response
482	6	30	0	34	0	6.3.3.2. Reducing Climate-Related Disaster Risk. The approach to policies and measures in this section overlook the point of limitations to build and implement policies and measures and how to address those barriers: lack of information, human resources, scientific base, financing, etc (Barros, Vicente, IPCC WGII TSU)	Throughout this section we now discuss the limitations and barriers such as lack of information, human resource capacity, scientific requirements, financing etc.
483	6	30	1	32	54	Explanations on strategic arbitrage between risk retention through protection and risk transfer should be given with examples (eg. In the UK: ABI Statement of principles ; in FR: initiatives taken by floodplain management authorities to provide protection levels up to 30-50 or even 100 year flood hazard return period, limiting the exposure of households as well as the NatCat regime to frequent events. (NUSSBAUM, Roland, Mission Risques Naturels)	We felt it is very difficult to go into these specific items for specific countries also given the space limitations.
484	6	30	1	32	54	When referring to insurance as incentive to DRR in no regret strategies, reference could be made to the White paper When speaking about a variety of insurance schemes and their low penetration rates, reference could be made to quantitative indications in terms of market penetration given in a report on insurance services and CCA adaptation, issued by CEA (see enclosure 2) (NUSSBAUM, Roland, Mission Risques Naturels)	Again, as this is very Euro-specific and the report has a global ambit, we felt it is very difficult to go into these specific items for specific countries also given the space limitations.
485	6	30	14	30	15	The author team should consider the consistency of the statement made here with the sentence on page 29, lines 34-36. Additionally, the phrase "climate change extremes" is not ideal. It would be preferable to use "climate extremes" OR a phrase that more clearly indicates that climate change can lead to changes in the occurrence of extreme events--without calling the extremes themselves climate change, for example, "changes in extreme events due to climate change." (IPCC WGII TSU)	The statement on page 29, lines 34-36 has been deleted with the last round of revisions. We also replaced "climate change extremes" with "changes in extreme events due to climate change"
486	6	30	30	0	0	There is a strong macroeconomics bias Economic losses as percentage of GDP are of course important, but it is a weak indicator of the total psychological, social, environmental, and political havoc a major disaster wreaks. The health effects are discussed in Tunstall et al 2006. (Warner, Jeroen, Wageningen University)	Ok, but the focus is on the transfer of monetizable losses
487	6	30	30	30	30	The approach to policies & measures in this section is somewhat rigid and the rationale behind it is not clear. Is it based on the means to achieve adaptive capacity? The subsections deal both with means (technology) and with sectors. The focus should be on the limitations to build and implement policies and measures and how to address those barriers: lack of information, human resources, scientific base, financing, etc. (CARLINO, HERNAN, UNIVERSIDAD TORCUATO DI TELLA)	See comment 482. More elaboration on limitations provided in discussions, within text length limitations.
488	6	30	40	30	44	These sentences are highly/completely redundant with the sentences on page 31, line 51, to page 32, line 1. (IPCC WGII TSU)	yes, a mistake and we adapted
489	6	30	40	32	51	Page 30, line 40, through page 31, line 43, is nearly word-for-word repetitive with page 31, line 51 through page 32 line 51. (UNITED STATES OF AMERICA)	yes, a mistake and we adapted
490	6	30	42	30	42	Part of this sentence is missing. (IPCC WGII TSU)	Added "in order to tackle..."
491	6	30	44	30	50	This text about protection and promotion models is repeated, almost word for word, on p.32 (lines 1-6). Delete one of them. (CANADA)	??
492	6	30	44	30	50	These sentences are highly redundant with the sentences on page 32, lines 1-6. (IPCC WGII TSU)	yes, a mistake and we adapted
493	6	30	52	31	5	This paragraph is highly redundant with page 32, lines 8-15. (IPCC WGII TSU)	yes, a mistake and we adapted
494	6	31	0	32	0	P31-32, I miss the topic of reducing impacts of natural hazards through insurances, by including reductions in premiums when households take actions to reduce impacts. See for instance: Botzen, W.J.W., Aerts, J.C.J.H. & van den Bergh, J.C.J.M. (2009). Willingness of homeowners to mitigate climate risk through insurance. Ecological Economics, 68(8-9), 2265-2277. (NETHERLANDS)	ok, we have this in ch.5 now, but mentioned here as well.
495	6	31	4	0	0	Delete word "never." (CANADA)	This has been corrected
496	6	31	4	31	4	"Penetration is never often much less than 100%" – grammar issue, probably meant to say "penetration is often much less than 100%", but this isn't very insightful because it would be very unusual to expect 100% of people-- even in a developed country-- to be insured against all risks. (UNITED STATES OF AMERICA)	This has been corrected
497	6	31	4	31	4	It seems the author team did not intend to have the word "never" in this sentence. (IPCC WGII TSU)	This has been corrected
498	6	31	5	31	5	The document says that insurance is virtually non-existent for flood risks in the Netherlands. Need to acknowledge that insurance doesn't make sense for highly probable events. In such cases, other tools are needed. (UNITED STATES OF AMERICA)	Well, this is riverine risk, and would make sense, but it seems to high
499	6	31	5	31	10	P31, L5, include reference, L10, include reference (NETHERLANDS)	Done so and rreferred to Botzen et al., 2009
500	6	31	7	31	10	It would be preferable to provide relevant citations for this sentence. (IPCC WGII TSU)	We refer to Linnerooth-Bayer, J. & Mechler, R., 2007. Disaster safety nets for developing countries: Extending public-private partnerships. Environmental Hazards, 7, 54-61.

#	Chapter	From Page	From Line	To Page	To Line	Comment	Response
501	6	31	7	31	13	This paragraph is highly redundant with page 32, lines 20-26. (IPCC WGII TSU)	Yes, corrected.
502	6	31	10	31	10	Should be "market penetration of non-traditional products", not "non-traditional risks" (UNITED STATES OF AMERICA)	Text has been changed now, and this disappeared
503	6	31	10	31	10	It seems that the author team may mean "risk transfer mechanisms" here instead of "risks." (IPCC WGII TSU)	Text has been changed now, and this disappeared
504	6	31	15	31	35	These paragraphs are highly redundant with page 32, lines 28-42. (IPCC WGII TSU)	Yes, corrected.
505	6	31	26	31	27	As discussed earlier' - the Arrow and Lind Theorem is not introduced earlier in Chapter 6. Do you mean it is discussed in another chapter? Please clarify, and if needed, provide more detail on this theory here. (Stocker, Thomas, IPCC WGI TSU)	It has been discussed in 6.4.3
506	6	31	37	31	38	The author team might consider citing case study 9.2.10 here. (IPCC WGII TSU)	yes, done.
507	6	31	37	31	43	This paragraph is highly redundant with page 32, lines 44-51. (IPCC WGII TSU)	Yes, corrected.
508	6	31	42	31	43	We suggest clarifying the case study on risk financing in Ethiopia. Suggested text: "Working with the Government of Ethiopia and partners like the World Bank, WFP has recently developed a specialized service supporting national risk management. The Livelihood Early Assessment and Protection (LEAP) service, uses ground and satellite rainfall data to monitor the Water Requirement Satisfaction Index (WRSI), and quantify the risk of drought or excess rainfall in different administration units of Ethiopia. The information provided through LEAP supports the Government decision making and risk management processes, including the activation of the national safety nets programmes that ensure protection to millions of food insecure people who may be affected in various parts of the country." References: Hellmuth, M.E. et al. (eds.) (2009) Index insurance and climate risk: Prospects for development and disaster management. Climate and Society No. 2. International Research Institute, Columbia University. IRI: New York. P., Anderson, J., Balzer, N., Hastrup Clemensen, A., Hess, U. and Rispoli, F. (2010) Potential for scale and sustainability in weather index insurance for agriculture and rural livelihoods. IFAD/WFP: Rome. (World Food Programme (WFP))	yes, this will be done for the case study in ch. 9
509	6	31	43	31	43	Chapter 9 will be much more usefully integrated into the entire report if specific case-studies are referred to by other chapters. (Stocker, Thomas, IPCC WGI TSU)	Yes, and we do so now.
510	6	31	43	31	43	The relevant case study from chapter 9 should be cited by number. (IPCC WGII TSU)	Yes, and we do so now.
511	6	31	45	32	51	Repetition!! This entire passage of 6 paragraphs is duplicated on the previous pages (page 30 line 37 - page 31 line 43). Please delete. (Stocker, Thomas, IPCC WGI TSU)	Yes, corrected.
512	6	31	45	32	51	Nearly all of this text is repeated elsewhere. (IPCC WGII TSU)	Yes, corrected.
513	6	31	47	31	49	It would be helpful to provide examples of the actions that governments can take to help create enabling environments for private sector engagement. (CANADA)	added: " by helping to estimate risk, help to develop training programs for insurer's staff and generally promote awarness"
514	6	31	51	32	1	These sentences are highly/completely redundant with the sentences on page 30, lines 40-44. (IPCC WGII TSU)	Yes, corrected.
515	6	32	0	0	0	This page is an almost-exact repeat of page 31. (International Petroleum Industry Environmental Conservation Association (IPIECA))	Yes, corrected.
516	6	32	1	32	6	These sentences are highly redundant with the sentences on page 30, lines 44-50. (IPCC WGII TSU)	Yes, corrected.
517	6	32	8	32	15	This paragraph is highly redundant with page 30, line 52, to page 31, line 5. (IPCC WGII TSU)	Yes, corrected.
518	6	32	8	32	51	These lines are redundant to lines 52-54 page 30 - lines 1-43 page 31 (NUSSBAUM, Roland, Mission Risques Naturels)	Yes, corrected.
519	6	32	18	32	18	Specific relevant sections of chapter 5 and case studies in chapter 9 should be referenced. (IPCC WGII TSU)	Referred to 5.2.2 now
520	6	32	20	32	26	This paragraph is highly redundant with page 31, lines 7-13. (IPCC WGII TSU)	Yes, corrected.
521	6	32	28	32	42	This paragraph is highly redundant with page 31, lines 15-35. (IPCC WGII TSU)	Yes, corrected.
522	6	32	44	32	51	This paragraph is highly redundant with page 31, lines 37-43. (IPCC WGII TSU)	Yes, corrected.
523	6	32	46	32	46	The relevant case study from chapter 9 should be cited by number. (IPCC WGII TSU)	Yes, and we do so now.
524	6	32	50	32	51	The relevant case study from chapter 9 should be cited by number. (IPCC WGII TSU)	Yes, and we do so now.
525	6	33	1	0	0	How the integrated Agencies constituted to manage the impacts compare with security services. The case of Katrina does not plead in favor of the American system. Is the organisation in China reliable? : The impact of the recent big seism in Sichuan has shown that the regulation was not complied with in the schools of the la province), and in return the capacity to manage the crisis due to multiple hazards was good. (BOURRELIER, PAUL-HENRI, AFPCN)	Useful reflections but beyond scope of this section
526	6	33	16	33	16	The specific relevant sections of chapter 5 should be cited here. (IPCC WGII TSU)	Cross referencing now been included accurately

#	Chapter	From Page	From Line	To Page	To Line	Comment	Response
527	6	33	19	33	36	It is suggested to mention the National Commission for Disaster Reduction of China which is a relatively well established institution. (CHINA)	Done
528	6	33	40	33	40	It would be helpful to provide a brief definition of "line ministry." (IPCC WGII TSU)	Amended
529	6	33	43	33	45	The insufficiency of resources and the paucity with which they have been made available, the astringency on demonstration on additionality and other limitations should also be mentioned here to balance the paragraph. (CARLINO, HERNAN, UNIVERSIDAD TORCUATO DI TELLA)	Done
530	6	33	45	33	46	The value of this table, particularly the identification of specific countries in the right-hand column, is questionable. It would be more appropriate to capture the typology (which is not used anywhere else in the report) in a paragraph and leave out the examples. If the table is retained it needs to include references. (CANADA)	Done
531	6	34	3	0	0	Box 6-6: This box should begin by providing a very brief reasoning as to why China and Kenya are selected here. (Stocker, Thomas, IPCC WGI TSU)	Done
532	6	34	3	0	0	Box 6-6. The term "disaster management," as used here, excludes reduction of disaster risk, and it would be preferable to use a more distinct term than "disaster management" or to explicitly specify the scope of the term, which is different from "disaster risk management." Additionally, it would be preferable to provide further citations for information presented in this box. (IPCC WGII TSU)	Addressed
533	6	34	5	34	23	The Chinese government's disaster management process has been developed as National Integrated Disaster Reduction, which includes the "disaster emergency response". (CHINA)	Changed
534	6	35	2	35	3	This sentence is unclear. (IPCC WGII TSU)	Amended
535	6	35	2	35	4	This statement that disaster events are commonly attributed to climate change is extremely problematic, inconsistent with the expert findings from SREX and must be removed. You can not chose to ignore the assessed evidence provided by the experts in the relevant SREX chapter (Chapter 4), who state in their executive summary (and repeated in the SPM) that in terms of disaster losses, there is high agreement that climate change has NOT led to any increasing losses, and rather increasing exposure of people and assets are driving any long term trends in disaster losses. This robust finding was based on robust scientific evidence, which according to your statement there is a lack of. The literature of the 'humanitarian community' is not a relevant or reliable source regarding the attribution of disasters to climate change. (Stocker, Thomas, IPCC WGI TSU)	Agree and have made necessary amendments, but the point that climate change is still used as a justification for enhancing disaster capacities is a point that needs to be made.
536	6	35	2	35	9	This paragraph makes an important but subtle point. A bit of elaboration would be helpful for the reader, including mention of the fact that robust scientific evidence of climate change's influence on some extreme events is available whereas it is not available for other events for which uncertainties are greater, as assessed in chapter 3. (IPCC WGII TSU)	Amended
537	6	35	5	0	0	Delete the words "pressure on" to remove possible disputes regarding attribution between climate variability and climate change (as per Chapters 1 and 3). (CANADA)	Done
538	6	35	20	0	0	We have some doubts about the expression aligning ; a less univoque should be used. (BOURRELIER, PAUL-HENRI, AFPCN)	We have considered this comment and the chapter team is happy with the term 'aligning'
539	6	35	20	39	19	Section 6.4 could be strengthened to increase its impact. It repeats a lot of content presented previously, and moves outside of the national systems that this chapter focuses on. Elements read more like a literature review than a science assessment. It lacks clear conclusions, as evidenced by its very limited contribution to the Executive Summary. (CANADA)	We have sought to strengthen the literature basis to section 6.4 (now 6.6) to move to more towards an assessment. However, we recognise that literature is thinner in this area, but the chapter team felt it was appropriate to include such a section to convey an important message - that business as usual approaches to disaster risk management are unlikely to be satisfactory given the knowledge of dynamic risks.
540	6	35	23	0	0	P35, L23, maybe start with summarising the national systems, this would clarify what is included. L23, what are the fundamental challenges? (NETHERLANDS)	This language has been nuanced and clarified and the introduction to 6.4 strengthened with literature sources
541	6	35	23	36	31	The citations in these paragraphs require substantial revision and attention. Many citations are not provided in the chapter's reference list, or it is unclear what source a citation corresponds to in the reference list. The missing citations must be added to the reference list. Then, all citations must be checked to ensure that they can be unambiguously linked to a reference in the reference list. (IPCC WGII TSU)	Citations have been addressed in detail and hopefully now accurate.
542	6	35	26	35	27	It would be preferable, as appropriate, to cite specific relevant sections of chapters 3 and 4 (e.g., Table 3.1). (IPCC WGII TSU)	Specific case studies have been referred to now and cross-referencing has been improved.

#	Chapter	From Page	From Line	To Page	To Line	Comment	Response
543	6	35	42	0	0	The focus on monetary losses also underplays important adverse consequences of disaster in poor and remote areas, where locally devastating natural shocks may not even be reported as a disaster (Warner, Jeroen, Wageningen University)	Not necessarily, we also discuss Multicriteria analysis and cost-effectiveness analysis, for which you don't need monetary values for impacts. Text not changed, but there is more discussion in 4.6.2.2
544	6	35	50	35	50	Is Solomon 2007 a relevant reference here? Should it rather be IPCC 2007a (SPM) or a specific chapter? (Stocker, Thomas, IPCC WGII TSU)	This was deleted as AR4 summarized other studies
545	6	35	51	0	0	Add "Canada" to the list of countries cited as the first reference is Canada's 2008 National Impacts and Adaptation Assessment. (CANADA)	Yes, this has been done
546	6	35	52	35	52	This is wrong. LDCs were funded to conduct NAPAs. (IPCC WGII TSU)	Dev'g countries replaced by LDCs
547	6	36	9	36	9	Should say "sea level rise" not "sea level risk" (UNITED STATES OF AMERICA)	Yes, of course and adapted.
548	6	36	10	36	13	It would be preferable to link the second sentence here, as well as the second half of the first sentence, to relevant assessment findings of chapter 3. (IPCC WGII TSU)	This sentence has been removed.
549	6	36	11	36	11	Please reword: '...in an environment where the frequency and variability of extreme events can change' (Stocker, Thomas, IPCC WGII TSU)	This has been adapted
550	6	36	11	36	12	As per our general comment, it is not within the scope or author expertise of Chapter 6 to be commenting on limitations/difficulties associated with climate modelling. The sentence beginning "On the other hand....." should be removed. A reader looking for information on modelling climate variability will find this in Chapter 3, and will not benefit from such vague statements appearing in other chapters. (Stocker, Thomas, IPCC WGII TSU)	This sentence has been removed.
551	6	36	11	36	13	This sentence is unclear. (IPCC WGII TSU)	This sentence has been removed.
552	6	36	30	36	31	It seems that this sentence represents a conclusion of the author team's assessment. It would be helpful to characterize the author team's degree of certainty in the statement using summary terms for evidence and agreement or levels of confidence, per the AR5 Guidance Note on Treatment of Uncertainties. (IPCC WGII TSU)	yes, high confidence, as there is little work
553	6	36	34	0	0	The text following should be revised. (BOURRELIER, PAUL-HENRI, AFPCN)	This comments is not sufficiently clear
554	6	36	36	36	37	Hallegatte et al. have done a study which may be relevant to this context: they stated that in the context of an uncertain impact of climate change to natural disasters, there are no evidences whether the global impact of global change will be limited to part of the PIB or if a threshold may be overturned leading to a new pathway of underdevelopment: Hallegatte, S.; J.-C. Hourcade ; P. Dumas, (2007): Ecological Economics, volume 62, issue 2, 20 April 2007, pp. 330-340, doi:10.1016/j.ecolecon.2006.06.006 (MODARESSI, HORMOZ, BRGM)	The reference has been included
555	6	36	39	36	42	Again, this is another vague statement on uncertainty that is not needed or useful in Chapter 6 and should be removed. How can uncertainty (which is partly from models in the first place) be managed through the development of further models and early warning systems which will also contain uncertainty? It is not at all clear what you are trying to say with the second sentence "Yet uncertainty pervades.....". (Stocker, Thomas, IPCC WGII TSU)	reference to chapter 3 has been included as well as change of the redaction to avoid vague statements
556	6	36	42	36	45	Prediction is always uncertain. (IPCC WGII TSU)	It is clearly explained
557	6	36	51	36	51	It would be preferable to cite specific relevant sections in chapter 8. (IPCC WGII TSU)	Done
558	6	37	2	0	0	P37, L 2, what do non-proponents argue? (NETHERLANDS)	The aim of this section is not to get into details on arguments of proponents and not proponents
559	6	37	6	37	12	The issues described here relate more to science/policy integration than to adaptive management. There is no reason why scientists and engineers need to be involved in adaptive management - which is defined as a systematic process for continually improving management policies and practices by learning from the outcomes of operational programs. (CANADA)	Scientists and stakeholders participation can be very useful in adaptive management . The reference of Nelson et al 2008 has been added
560	6	37	33	0	0	"However, if carefully managed," should read "However, if not carefully managed" (Warner, Jeroen, Wageningen University)	The proposed change has been included
561	6	37	36	37	36	The citation for Berkes (2004) is not provided in the chapter's reference list. Please ensure this citation is added to the reference list. (IPCC WGII TSU)	Mistake has been corrected
562	6	37	37	37	37	The citation for Eriksen et al. (2011) is not provided in the chapter's reference list. Please ensure this citation is added to the reference list. (IPCC WGII TSU)	Citation has been included
563	6	37	42	37	42	The citation for Hoegh-Guldberg et al. (2009) is not provided in the chapter's reference list. Please ensure this citation is added to the reference list. (IPCC WGII TSU)	Error in the citation, this has been fixed
564	6	37	44	37	44	Typo in citation: For Sorenson (1997), the author's name is spelled differently in the chapter text, as compared to the chapter reference list. Please ensure correct spelling of the author's name in both the text and the reference list (IPCC WGII TSU)	Error in the citation has been fixed

#	Chapter	From Page	From Line	To Page	To Line	Comment	Response
565	6	37	53	0	0	Insert the word "not" before "carefully." (CANADA)	The proposed change has been included
566	6	37	53	37	53	Seems a "not" is missing here, i.e., "if not carefully managed" (Stocker, Thomas, IPCC WGI TSU)	The proposed change has been included
567	6	37	53	37	53	Presumably the author team here means "if *not* carefully managed"? (IPCC WGII TSU)	The proposed change has been included
568	6	38	2	38	10	The author team should consider using summary terms for evidence and agreement to characterize the information described here, per the AR5 Guidance Note on Treatment of Uncertainties. (IPCC WGII TSU)	Reference to chapter 3 has been included
569	6	38	5	38	10	It would be preferable if the author team situated this mention of the need for a clear definition of resilience more directly in the context of the discussion of resilience in chapters 1 and 8 and of the glossary entry for resilience. Relevant sections of chapters 1 and 8 should be cited here. (IPCC WGII TSU)	Reference to chapter 8 and glossary have been included
570	6	38	13	0	0	Section 6.4.3. The citations in this section require substantial revision and attention. Many citations are not provided in the chapter's reference list, or it is unclear what source a citation corresponds to in the reference list. The missing citations must be added to the reference list. Then, all citations must be checked to ensure that they can be unambiguously linked to a reference in the reference list. (IPCC WGII TSU)	Now revised and included in full
571	6	38	15	38	16	It might be preferable to cite specific relevant sections and assessment findings in chapters 2 and 4. Also, it should be carefully ensured that any citations to chapters 2 and 4 directly support the statement here. (IPCC WGII TSU)	Now cited
572	6	38	18	38	19	Caution against speaking of carbon emission reductions in the context of this report. Important to remember the natural variability component in climate change and extreme events, and the inability to directly attribute anthropogenic GHG emissions to extreme events. (Stocker, Thomas, IPCC WGI TSU)	Now removed
573	6	38	19	38	19	It would be preferable to cite specific relevant sections in chapter 2. (IPCC WGII TSU)	Now included.
574	6	38	28	38	28	The citation for UNISDR (2010) does not appear in the chapter's reference list. (IPCC WGII TSU)	Now revised
575	6	38	37	38	37	The author team might consider citing specific relevant sections in chapter 8. (IPCC WGII TSU)	Now included.
576	6	38	43	0	0	Section 6.4.4. This section presents conclusions of the author team's assessment. It would be helpful to characterize the author team's degree of certainty in the section's statements using summary terms for evidence and agreement or levels of confidence, per the AR5 Guidance Note on Treatment of Uncertainties. (IPCC WGII TSU)	Confidence levels now added where appropriate
577	6	38	45	39	19	Section 6.4.4 needs to be supported by references. This starts with the first sentence. "Fundamental shifts" are difficult to achieve and makes the processes of DRR and CCA sound very complex. It would be more constructive to focus on practical, implementable steps that will draw us towards making major shifts. (CANADA)	text changed considerably to provide a set of concluding points with reference to earlier text- also suggest change in the title for the S 6.4.4
578	6	38	46	38	50	Referring to "Ideally" and "second-best options" is tending to be policy prescriptive. Please provide citations as to who says this, or rephrase. (Stocker, Thomas, IPCC WGI TSU)	Done
579	6	38	51	38	51	Replace 'trends' with "...to the observed and projected changes in extreme events....." (Stocker, Thomas, IPCC WGI TSU)	thank you for the suggestion. Done
580	6	39	1	39	14	References are needed. (IPCC WGII TSU)	text changed considerably to provide a set of concluding points with reference to earlier text- also suggest change in the title for the S 6.4.4
581	6	39	6	39	6	The use of "likely" here appears to be casual, not tied to the AR5 Guidance Note on Treatment of Uncertainties, and therefore its use should be avoided. (IPCC WGII TSU)	text changed considerably to provide a set of concluding points with reference to earlier text- also suggest change in the title for the S 6.4.4
582	6	39	22	0	0	Knowledge gaps: Strange section not found in any other chapters. This is not needed within an IPCC assessment. (Stocker, Thomas, IPCC WGI TSU)	Many other reviewers have found the knowledge gaps section very useful. These are found in other IPCC chapters.
583	6	39	22	0	0	Idem (BOURRELIER, PAUL-HENRI, AFPCN)	???
584	6	39	24	39	43	This paragraph presents conclusions of the author team's assessment. It would be helpful to characterize the author team's degree of certainty in the section's statements using summary terms for evidence and agreement or levels of confidence, per the AR5 Guidance Note on Treatment of Uncertainties. (IPCC WGII TSU)	Confidence levels now added where appropriate
585	6	39	28	39	28	It would be preferable to cite specific relevant sections in chapters 3 and 4, as appropriate. (IPCC WGII TSU)	We refer now to 3.3, 3.4, 3.5, 4.3
586	6	39	35	39	35	Compulsion? (IPCC WGII TSU)	This has been replaced by need
587	6	40	7	40	7	Typo in citation: For Swart and Rees (2007), the second author's name is spelled differently in the chapter text, as compared to the chapter reference list. Please ensure correct spelling of the author's name in both the text and the reference list (IPCC WGII TSU)	Yes, this is Raes.

#	Chapter	From Page	From Line	To Page	To Line	Comment	Response
588	6	40	13	0	0	FAQs: There is little sense in having FAQs positioned at the end of the chapter. The first 2 questions here are very reasonable questions to ask, BUT the reader would ask these questions very near the beginning of the Chapter and they are pointless coming at the end! We suggest questions 1 and 2 are combined and positioned near the beginning of the Chapter. Something like 'FAQ 6.1 - What constitutes national systems and how what role do they play in managing the risks of climate related extreme events and disasters?. Remember - These are meant to be FAQs that the informed public and policy-makers would ask, not academically frequently asked questions. Consider whether or not the remaining FAQs are suitable or not, if they can be combined, and where they can most appropriately be positioned in the chapter. (Stocker, Thomas, IPCC WGI TSU)	The team considered this and other related questions and decided to reduce the number of FAQ considerably, deleting several FAQ which were considered not to be of high priority for policy makers
589	6	40	13	0	0	FAQs. The author team needs to revise these FAQs. First, the author team should carefully consider what questions decision makers would be most likely to have after having considered the chapter's assessment. Second, the content of the FAQ answers should not merely repeat, in a condensed and uncited format, the content of the chapter. Rather, the FAQ answers should provide insight that complements the content of the chapter. For example, FAQ2 is currently highly redundant with 6.2, without providing insight beyond the material in 6.2. (IPCC WGII TSU)	The team considered this and other related questions and decided to reduce the number of FAQ to 3, deleting several FAQ which were considered not to be of high priority for policy makers
590	6	40	13	45	19	FAQs are a useful part of any chapter. However to be effective the questions need to be clear and simple (the type of question a non-scientist is likely to ask) and the answers have to be concise. Much of the text in the present examples is simply copied from the main body of the report with references removed. The Qs and As presented in Chapter 7 are more effective and could be a model for this chapter. (CANADA)	The team considered this and other related questions and decided to reduce the number of FAQ considerably, deleting several FAQ which were considered not to be of high priority for policy makers
591	6	40	30	41	31	The question of what actors impact national systems of adaptation may also include multi-level impacts e.g. from other levels and actors than those listed here. For instance, in some states may strong local actors act to lobby the national level (or even the EU, in the case of Europe) and by that constitute a strong impact on the development of adaptation policy. The possibility that national systems or national adaptation strategies, for instance, have actually been developed through processes on other levels that impact the national level could be stated in a short paragraph or a few sentences in the end of this section. (Potential reference: Keskitalo, E.C. H. 2010, ed. Developing Adaptation Policy and Practice in Europe: Multi-level Governance of Climate Change. Springer, Dordrecht). (SWEDEN)	Reference to local level influencing national government level policy included in the FAQ as well as in the text S 2.3
592	6	40	31	0	0	P40, L 31, constellation of actors within the country is also important (NETHERLANDS)	Consternation of actors mentioned in line 18 are national and subnational ones.
593	6	41	23	41	23	for example, cyclones, droughts' (Stocker, Thomas, IPCC WGI TSU)	unclear what this comment is referring to - seems incomplete statement
594	6	41	25	41	25	Please change 'long-term prediction' to 'long-term projection'. (Stocker, Thomas, IPCC WGI TSU)	Done
595	6	41	49	41	49	Delete - 'including no climate change'. Natural variability ensures that climate is always changing. Note that SREX is using a definition of climate change that includes both natural and anthropogenically forced change. (Stocker, Thomas, IPCC WGI TSU)	corrected
596	6	41	49	41	52	Could include ecosystem-based adaptation measures here in the list of no-regrets options. (UNITED STATES OF AMERICA)	included specific reference to EBA
597	6	42	4	42	5	This is yet another vague statement relating to the uncertainty of climate science. What is this additional information, and how would it 'treat' uncertainties? Please delete. (Stocker, Thomas, IPCC WGI TSU)	in the revisions this issue of information was not covered.
598	6	42	4	42	5	The author team should consider more clearly explaining what is meant by "more climate information may be needed." (IPCC WGII TSU)	clarified by further elaborating on the issue
599	6	42	7	42	9	The parenthetical example should be more fully explained. How would strengthening resilience today increase vulnerability to flooding? (IPCC WGII TSU)	revised to better explain the concept.
600	6	42	12	42	15	Size is not the only reason countries can't have insurance schemes and need disaster reserve funds. Reserve funds are also needed in cases of the most extreme events where insurance coverage would be prohibitively expensive (for any country, not just small ones). (UNITED STATES OF AMERICA)	revised to better explain the concept.
601	6	42	17	42	19	This sentence is unclear. (IPCC WGII TSU)	clarified
602	6	42	25	42	28	Policies should all be no regrets. (IPCC WGII TSU)	changed
603	6	42	37	42	37	Because the term "mitigating" is being used here in relation to disasters (instead of directly in relation to climate change), it would be preferable to avoid use of the term. (IPCC WGII TSU)	no longer relevant
604	6	42	44	42	46	This is an example of streamlining and coordination, but not necessarily of EbA. Caution should be exercised as the present draft makes ecosystem-based adaptation sound like a silver bullet, when it is only one of many approaches to adaptation, all of which have different strengths and applicabilities. (CANADA)	EBA reference toned down to provide a more balanced picture
605	6	42	49	0	0	FAQ 4: Is this really an FAQ asked by the informed public? Do the public speak of transferring and managing residual risk? (Stocker, Thomas, IPCC WGI TSU)	text modified to make it more relevant to the target audience

#	Chapter	From Page	From Line	To Page	To Line	Comment	Response
606	6	42	49	42	49	The phrase "increasing risks of climate change related extremes" is not ideal. It would be preferable to use "increasing risks associated with extreme events influenced by climate change." (IPCC WGII TSU)	done
607	6	42	52	42	52	The phrase "increasing risks of climate change related extremes" is not ideal. It would be preferable to use "increasing risks associated with extreme events influenced by climate change." (IPCC WGII TSU)	ok
608	6	43	34	43	34	Not sure "inappropriate education" is the problem so much as lack of information/education. "Inappropriate education" sounds like they are being educated with misinformation. (UNITED STATES OF AMERICA)	no longer relevant as the focus of hte FAQ is npow different.
609	6	43	47	0	0	FAQ 5: Is this really an FAQ asked by the informed public? Very had to imagine the public would ask about 'hard' and 'soft' options, and the concept of residual risk. There is word-for-word repetition in this FAQ from the main text. (Stocker, Thomas, IPCC WGI TSU)	text amened to make it more relevant to teh target audience
610	6	44	1	44	1	Prevailing patterns in income distribution (CARLINO, HERNAN, UNIVERSIDAD TORCUATO DI TELLA)	Unclear what this comment is refering to
611	6	44	5	0	0	P44, L 5, spell check (NETHERLANDS)	FAQ 5 deleted
612	6	44	14	44	21	While the issue of vulnerability and poverty in the context of climate change has been adequately considered, this means on how to address it are not being considered even in general. The section creates the impression that the issue is a key one and that there are no clear views on how to address it. (CARLINO, HERNAN, UNIVERSIDAD TORCUATO DI TELLA)	FAQ 5 deleted
613	6	44	29	44	30	This statement regarding permafrost standards for Arctic Canada needs to be checked. If this is referring to the Canadian Standards Association (2010) document mentioned earlier in this chapter (page 26), then these are not standards but rather guidelines (standards have an entirely different meaning and their development is quite different than guidelines) (CANADA)	FAQ 5 deleted
614	6	45	1	0	0	FAQ 6: This is a reasonable FAQ, but consider rewording the question in the way that the informed public might ask the question. (Stocker, Thomas, IPCC WGI TSU)	FAQ 6 deleted
615	6	45	22	71	32	This reference list requires substantial revision and attention. The following issues need to be carefully addressed: 1) Entries are not always in the right alphabetic order. Please rearrange the list to make sure all entries are in the right alphabetic order. 2) Several times there are multiple references for a certain author and year in the list. Publications by the same author from the same year should be distinguished by adding 'a', 'b', 'c' etc. to the publication year. Please add those letters in the reference list and everywhere you are citing these sources in the text. 3) Several times, a reference does not list all author names but makes use of "et al." All author names should always be listed here, without use of "et al." Please add the other author names to the reference list where necessary. 4) Multiple references in the list miss important information, e.g. on the publication where an article was published or the publisher of a document. Please ensure that all references contain complete bibliographical information. (IPCC WGII TSU)	The reference list has received considerable attention and we are happy that all the points raised here have been addressed. Thank you for making it clear.
616	6	53	12	53	12	For Floodsite (2006): The link provided for this reference does not link directly to the document cited. Please revise or delete the provided URL. (IPCC WGII TSU)	Amended
617	6	53	38	53	40	For Ghesquiere et al. (2006): The link provided for this reference does not link directly to the document cited. Please revise or delete the provided URL. (IPCC WGII TSU)	Amended
618	6	56	6	56	7	For IFRC (2009): The link provided for this reference does not link directly to the document cited. Please revise or delete the provided URL. (IPCC WGII TSU)	Amended
619	6	57	25	57	28	For Interworks (1998): This listed source is not available at the link provided. Please revise or delete the provided URL. (IPCC WGII TSU)	Amended
620	6	66	1	66	3	For Slim, H (2006): This listed source is not available at the link provided. Please revise or delete the provided URL. (IPCC WGII TSU)	Amended
621	6	68	21	0	0	Edit the text of the cited reference. (CHILE)	Amended
622	6	72	0	0	0	Bullet 1 of column 4 -- "avoid perverse incentives in conventions" -- what does this mean? This phrase is seemingly a specific recommendation but appears nowhere in the chapter except for this and provides neither a definition nor an example of what is meant. (Stocker, Thomas, IPCC WGI TSU)	Reworded.
623	6	72	0	0	0	Put "residual risks" column farther over to the right, to demonstrate that residual risks are what are left after reducing and transferring risks as much as possible. (UNITED STATES OF AMERICA)	Done
624	6	72	0	0	0	The types of measures in the residual risks column are not all appropriate for that category - some are risk reduction measures. For example, "Reduce forest harvesting and provide incentives for alternate livelihoods" and "Better land and water use management to reduce health risks" should be categorized as "risk reduction" or "no regrets". Lastly, what is micro-funding?...assume they mean micro-finance or micro-credit. (UNITED STATES OF AMERICA)	Thanks. Changed some items and reworded many items in residual risks column to indicate that new and enhanced levels of actions would be needed beyond "low regrets".

#	Chapter	From Page	From Line	To Page	To Line	Comment	Response
625	6	72	0	0	0	Table 6-1. In the table legend, it would be helpful to provide a brief description of the columns of the table, to facilitate ready understanding for the reader. In particular, the placement of the first column, "Manage residual risks," should be explained more fully--the actions described in this column would be recourse to deal with the impacts that cannot be avoided through the actions described in the other columns. Because this column comes first in the table, the column's examples could be interpreted as the first actions that can be taken, and the logic of how the column should be interpreted needs to be clarified. Then, the column on "Preparing for climate change by reducing uncertainties" also needs to be carefully considered. It seems that "reducing uncertainties" is broadly conceived in this column; reducing uncertainties associated with management and with information about climate conditions and natural systems is considered, but examples are also given for actions that help prepare for such uncertainties, rather than directly reducing them. The author team should clarify the scope of this column because it is not conveyed precisely enough to enable clear understanding by the reader. Additionally for this column, the textual introduction of it refers to "prepar[ing] for the uncertainties associated with the future climate" whereas the column itself refers to "[p]reparing for climate change by reducing uncertainties"; these descriptors are similar but nonetheless fundamentally different, and the differences should be reconciled. Finally, the distinction between this column and the subsequent column on reducing "future climate change risks" should be considered, ensuring a clear rationale for examples placed in one column as opposed to the other. (IPCC WGII TSU)	Column headers altered somewhat for more clarity. Enhanced text description in 6.3.1.1 (although some reviewers suggested less text describing column headers). Column on "Preparing..." reworded as suggested and description of building capacity added.
626	6	72	0	76	0	The big table at the end is not very easy to read. Maybe the column headings can at least be repeated every page. (Warner, Jeroen, Wageningen University)	Will have table re-formatted in the final copy editing process.
627	6	72	1	72	1	Table 6.1: Forestry: I repeat: reducing harvest is only useful in situations where the current level of harvest is not sustainable. Please check Jandl et al. (Carbon sequestration and forest management; doi: 10.1079/PAVSNNR20072017). If you refer to poorly managed forests please use "degradation" instead of "harvest" as the latter also applies to well-managed ecosystems. (Rock, Joachim, Johann Heinrich von Thuenen-Institute)	Thanks. Done. Added afforestation (for robust forests). Reference added.
628	6	72	1	72	1	Table 6.1: "win-Win": increasing biomass in existing forests is not always a good idea - this increases the risk of windthrow and other disturbances. Please see Schelhaas et al. (2003) (Chapter 4). (Rock, Joachim, Johann Heinrich von Thuenen-Institute)	added word "sustainable". Added reference. Thanks.
629	6	73	0	0	0	Table 6-1: last column says "Promote" several times - this is policy-prescriptive. Suggest "Use of" (Stocker, Thomas, IPCC WGI TSU)	Done.
630	6	78	0	0	0	Table 6-3: Strange to list "dense network of rain gauges" as the info need for relief payments. Rain gauges may be needed for weather index micro-insurance, but not for all kinds of relief payments. (UNITED STATES OF AMERICA)	This has now been modified
631	6	78	0	0	0	Table 6-3: For water demand management, also need to measure demand itself (current and anticipated, based on population, prevalent economic activities, etc) (UNITED STATES OF AMERICA)	This has been added
632	6	79	0	0	0	Table 6-4: Care with asserting that certain named states, incl. members of IPCC, "lack the will .." to protect their citizens - suggest rephrasing (Stocker, Thomas, IPCC WGI TSU)	Table now removed
633	6	79	0	0	0	Table 6-5: In the pre-disaster column, include risk reduction measures and public education and awareness-raising (UNITED STATES OF AMERICA)	Now added
634	6	79	0	0	0	Table 6-4. This table presents a useful typology but requires several clarifications. First, the title of the table should be more specific. These responses seem to reflect the ways in which the international community engages in disaster responses, following from national structure and capabilities, and the title should more explicitly reflect this scope of the table's content. Second, the columns of the table must be labeled so that presented information can be clearly understood by the reader. Third, relevant citations for information in the table must be provided. Finally, should a specific episode be provided for Zimbabwe? (IPCC WGII TSU)	Table now removed
635	6	79	0	0	0	Table 6-5. The term "disaster management," as used here, excludes reduction of disaster risk, and it would be preferable to use a more distinct term than "disaster management" or to explicitly specify the scope of the term, which is different from "disaster risk management." Additionally, as a minor point, because the term "mitigation" is being used in the second column in relation to disasters (instead of directly in relation to climate change), use of the term should be avoided. (IPCC WGII TSU)	Done
636	6	80	0	0	0	Table 6-6. It seems that it would be more appropriate to place this table within the chapter text as opposed to in an FAQ. (IPCC WGII TSU)	Table 6.6 has now been removed and replaced with a new table
637	6	80	0	80	0	Table 6-6 Example under Building Codes that refers to permafrost standards for Arctic Canada needs to be checked. If this is based on Canadian Standards Association (2010) document referred to on pg 26, these are guidelines rather than standards. (see comments on page 44, line 29-30) (CANADA)	Table 6.6 has now been removed and replaced with a new table