

#	Ch	From Page	From Line	To Page	To Line	Comment	Response
1	6	0	0	0	0	(Overall comment) The reviewed Chapter 6 provides generic comprehensive picture of the main development trends and key features of the national systems for managing the risks posed by climate extremes and disasters. The literature cited in the study and provided in the list of references covers almost all basic publications existing in the field. The minor corrections and amendments above could be easily inserted while editing if acceptable. As to the major shortcomings of the chapter, which needs serious consideration one should mention the lack of description of the existing (established and emerging) national disaster and/or emergency management systems (i.e. organizational systems). Such systems function in many countries including Canada, Germany, Russia (EMERCOM), USA (Intergrated Emergency Management System), etc. I believe that at least an overview with classification (typology) of such systems should be provided in Chapter 6. Meanwhile, short descriptions of one or two of these systems are worth consideration in Chapter 9 as case studies. (Porfiriev, Boris, Institute for Economic Forecasting, Russian Academy of Sciences)	While the primary focus of the chapter is on ex-ante measures and the systems required to support them, we recognise the importance of systems across all countries designed to manage residual risk. In this regard we have significantly strengthened section 6.3.3.4 on Managing the Impacts, including a classification of such systems. We have also include examples from China and Kenya.
2	6	0	0	0	0	Very good elaboration on the role of the "disaster risk management system", the key actors and their approaches. The link and analysis with other sectors i.e environment, and other sectors at risk i.e. agriculture, water, health, education etc is very weak. (Jegillos, Sanny, UNDP)	We have strengthen section the cross-sectoral linkages in 6.3.1 but do not have the space to develop a very detailed sectoral assessment. We hope the literature cited in the Table in 6.3.1 will deliver a significant amount of focus on key sectors
3	6	0	0	0	0	Paintfully I didn't have enough time to make comments about this chapter (Linayo, Alejandro, Research Center on Disaster Risk Reduction CIGIR)	N/A
4	6	0	0	0	0	Change of government can significantly 'open up' or 'close down' opportunities for advancing the DRR and CCA agendas as recent (and less recent) elections attest in countries ranging from the USA to Australia, New Zealand and South Africa. (Glavovic, Bruce, Massey University)	We have initiated a literature search on this dimension and hope to include a stronger section post-SOD.
5	6	0	0	0	0	This chapter would benefit from an assessment of the lessons learnt from national systems for managing risks from climate extremes and disasters to inform more strategic adaptation policy/planning decisions by governments. (Dumbrell, Amy, Australian Government Department of Climate Change and Energy Efficiency)	We hope that the second order draft sharpens out key messages in this regard and it has become a focus of our overall redrafting.
6	6	0	0	0	0	General impression: This chapter gives an impression of dealing with disasters and risks after they have happened instead of planning with climate change and extreme events in mind. (Asphjell, Torggrim, Climate and Pollution Agency (Norway))	We would disagree. The chapter has a strong ex-ante focus.
7	6	0	0	0	0	No particular observations except care in consistency across definitions along the chapters (Bosello, Francesco, Fondazione Eni Enrico Mattei, Milan University \)	Definition consistency has become a more significant feature of our redrafting across all chapters
8	6	0	0	0	0	CHAPTER OVERLAPS: This is a well-written Chapter that perhaps inevitably has some overlaps with Chapters 5 and 7. The issues of redundancy need to be discussed and solved in cross-chapter meetings. (Stocker, Thomas, IPCC WGI TSU)	Issues of redundancy discussed. Some overlap inevitable, but chapter teams want to provide a comprehensive assessment even if overlaps do exist to reflect the way the report might be read on a chapter-by-chapter basis depending on stakeholder interests.
9	6	0	0	0	0	SUPPORTING EVIDENCE: Strong and/or sweeping statements are often made based on zero or only one reference. Important information to convey, but you must provide evidence to support these statements. Providing more than one credible source strengthens your assessment. (Stocker, Thomas, IPCC WGI TSU)	Care has been taken to address this point and the chapter team has carefully discussed many of the more sweeping statements to consider the validity of their inclusion. More work will be done on this aspect as we move towards completion.
10	6	0	0	0	0	UNCERTAINTY: General comment on the treatment of the words "likely", "very likely", etc. throughout the chapter text. In IPCC, "Likely", "very likely" and all other expressions from the IPCC Uncertainty Guidance are part of calibrated IPCC language and therefore reserved. These words can only be used in relation to the formal treatment of uncertainty! They are formal terms used to quantify the likelihood of an outcome or result where a probabilistic basis can be established. For clarity and consistency, these words (e.g., "likely", etc.) can only be used when assigning a formal likelihood statement. In order to clearly visualize this in the text, they appear in italicized form as per the uncertainty guidance provided to all authors. (Stocker, Thomas, IPCC WGI TSU)	All uses of uncertainty language in terms of the IPCC usage has been sought, analysed and modified where appropriate. This issue will continue to be a focus of the assessment process for the chapter team as we move towards completion.
11	6	0	0	0	0	STRUCTURE: Chapter 1 (p.39, lines 25-32) describes a structure for Chapters 5, 6 & 7 with a common set of questions that are explored from 7 perspectives. The implementation of this structure is not clearly reflected in the Chapter structure. (Stocker, Thomas, IPCC WGI TSU)	Addressed in the Geneva LAM3.
12	6	0	0	0	0	POLICY PRESCRIPTIVE: An IPCC assessment provides policy relevant information in a neutral, objective and factual manner. Care must be taken to avoid straying into advocacy nor to become policy prescriptive. Caution against phrases that tell governments what their "role", "function", "duty", "obligation" or "responsibility" is or what they "need", "must" or "have to" do -- this will be interpreted as being policy prescriptive even when that is not the intent. (Stocker, Thomas, IPCC WGI TSU)	Uses of any policy prescriptive language have been highlighted and addressed where appropriate.
13	6	0	0	0	0	CROSS-CHAPTER FAQ: Consider a cross-chapter FAQ for Chapters 5, 6 and 7 on managing the risks of climate extremes at the local, national and international level? (Stocker, Thomas, IPCC WGI TSU)	CLA consult

#	Ch	From Page	From Line	To Page	To Line	Comment	Response
14	6	0	0	0	0	This chapter should be a prototype for chapter 5! (Bardt, Hubertus, Cologne Institute for Economic Research)	Thank you
15	6	0	0	0	0	In general this Chapter is providing good information. In my opinion a case study approach would be more interesting to point out the difference, advantages and disadvantages of different organizations of national systems. I do have discussion of Canadian organization in Chapter 2 of my textbook (Simonovic, S.P., Systems Approach to Management of Disasters: Methods and Applications, John Wiley & Sons Inc., New York, pp.348, ISBN: 978-0-470-52809-9, 2011 - in print, available Nov 1, 2010). I would like to see some expansion of discussion how different national systems respond to disaster dynamics (timeline of disaster) and scale. (Simonovic, Slabodan, University of Western Ontario)	This discussion has been taken up in much more detail than in the First Order Draft in section 6.3.3.4. Thank you for the reference.
16	6	0	0	0	0	no comment (Yasseen, Adel, Ain Shams University - Institute of Environmental Research and Studies)	N/A
17	6	0	0	0	0	Are five hierarchy levels in the chapter structure really needed? (Fuessel, Hans-Martin, European Environment Agency)	To further consider addressing post-SOD
18	6	0	0	0	0	I consider relevant to the scope of this chapter 6 to include a brief discussion on disaster risk and climate change adaptation associated with energy supply in countries which are heavily dependant on natural resources, as the case of Canada, Norway, Brazil, Peru, Venezuela, Uruguay and Costa Rica, among others, where the hydroelectric generation is predominant in the production of electric energy ( <a href="http://www.eia.doe.gov/emeu/international/electricitygeneration.html">http://www.eia.doe.gov/emeu/international/electricitygeneration.html</a> ). For these countries, a climate change that affects the supply of natural resources, such as a severe drought, could cause a shortfall in the supply of electricity, with strong social and economic impact. In Brazil, where hydropower accounts for about 90% of the country's energy, the production system was designed to withstand the worst drought on record in 80 years. In an environment of climate change, what risk would it represent? In the case of electric energy, an example of climate change adaptation may be the interconnection between countries of the same continent to exploit the hydrological complementarity or the exchange of different energy sources. While this type of solution is already a reality in the Nordic countries, in South America, although promising, the electrical interconnection is still very incipient (Batlle et al, 2010). BATLLE, C. ; BARROSO, L. A. ; PÉREZ-ARRIAGA, I. A. . The changing role of the State in the expansion of electricity supply in Latin America. IIT Working Paper IIT-08-061A, July 2010. Available at <a href="http://www.iit.upcomillas.es/batlle">www.iit.upcomillas.es/batlle</a> . (Rocha, Vinicius, Operador Nacional do Sistema Elétrico)	To further consider
19	6	0	0	0	0	The Chapter could indicate the HFA as the chapeau and show how stakeholders deviate from and can fulfil their HFA roles. (Vordzorgbe, Seth, UNDP)	Stronger references to HFA included in the introduction and stronger referral to detailed discussion of HFA in Chapter 7.
20	6	0	0	0	0	For a first draft, this chapter is thorough and well-written. I like the efforts to follow a logical structure and logical processes of argument. The chapter is centrally important to the primary audience of the SREX, namely governments, as it speaks mainly to the tools at governments' disposal. (Basher, Reid, Secretariat of the High-Level Taskforce on the Global Framework for Climate Services)	Thank you
21	6	0	0	0	0	There are number of instances of "see reference." This is an assessment for governments. Please provide relevant references. (IPCC WGII TSU)	Addressed in the SOD
22	6	0	0	0	0	This chapter comes across as an academic exercise rather than an assessment of practices to increase the ability of national systems to manage the risks of extreme events and disasters. There are a large number of "motherhood" statements that no one would disagree with (along the lines that national governments need to be better at managing risks) without evaluation of what has and has not worked, along with examples. For example, there needs to be a discussion of national committees on emergency response that emerged after the 2004 tsunami, including their effectiveness. There also needs to be evaluation of a number of tools, such as early warning systems. An glaring omission is a discussion of the importance of establishing and maintaining monitoring and evaluation, to ensure continued effectiveness in a changing climate. (IPCC WGII TSU)	Stronger emphasis on critical evaluation included in the SOD, including a focus on early warning systems and use of information in decision-making processes. Sharpening of key messages about learning from such systems. M&E systems still to be addressed.
23	6	0	0	0	0	It is quite helpful to have the links to Chapter 9, however these links need to be discussed in a way that does not require the reader to look up the material in Chapter 9 (i.e. a sentence summary is needed). There are large sections of the chapter without any examples; these need to be added. (IPCC WGII TSU)	Stronger integration of examples across the chapter though still requires further improvement - electronic linkages to chapter 9 to be explored along with better representation of chapter 9 case studies post-SOD.
24	6	0	0	0	0	The chapter is quite weak on references to the adaptation literature. The SREX is intended to integrate across the disaster risk and adaptation communities. Additional effort is needed to add the perspectives and experiences in adaptation. (IPCC WGII TSU)	Attempts made to strengthen inclusion of adaptation literature in SOD. Overall an additional 100 or so references added between FOD and SOD.
25	6	0	0	0	0	By focusing nearly exclusively on viewing risk management within a development perspective, the chapter misses the opportunity to discuss interlinkages across sectors that could improve current experience. (IPCC WGII TSU)	Development perspective is strong and the chapter team would like it to remain strong given the skewed impacts towards developing countries. However, section on cross-sectoral linkages strengthen considerably in SOD.

#	Ch	From Page	From Line	To Page	To Line	Comment	Response
26	6	0	0	0	0	There needs to be a serious assessment of early warning systems, not just generic text. Most of the text implies that the key component of early warning systems is getting the meteorological data. This is a narrow view of the required components of an early warning system. There are a wide range of early warning systems tied to extreme events and disasters; these need to be acknowledged and evaluated. Their strengths and failures need to be discussed (such as the year that FEWS had an incorrect forecast, resulting in food insecurity in parts of Africa. What needs to be done to make these systems more effective, and not just from the meteorological side? (IPCC WGII TSU)	Section of early warning strengthen considerably with more concrete examples and assessment in SOD.
27	6	0	0	0	0	There are several statements that one of the biggest constraints to effectively managing the risks of extreme events and disasters is not having access to downscaled climate projections. This is inconsistent with the experience in adaptation. Linda Mearns might be willing to be a contributing author, and to provide text on this topic. (IPCC WGII TSU)	The text highlights the importance of "top-down" approaches using downscaled climate projections but also acknowledges the realities and challenges in working with downscaled projections of climate extremes, particularly for developing countries where even climate data may be scarce. Text refers back to Chapter 3 methodologies and highlights other human resource reasons for challenges in accessing downscaled results for extremes - not the science capacity.
28	6	0	0	0	0	There is only a small acknowledgement of the importance of NGOs at the national level. The International Federation of Red Cross and Red Crescent Societies, Oxfam, etc. have large and very valuable programs at the national level. (IPCC WGII TSU)	Section on NGO strengthened to include references to more examples of NGO engagements in national co-ordinated action.
29	6	0	0	0	0	Parts of the chapter were written from the perspective of disaster risk reduction and part from the perspective of disaster risk management. These need to be harmonized. (IPCC WGII TSU)	This is correct. The approach is clear. Disaster risk reduction is one component of managing disaster risk and is placed in an appropriate context alongside other management options - e.g. Transferring risk, managing impacts of residual risk.
30	6	0	0	0	0	There is almost no mention of the importance of prevention. For example, all heat-related deaths are preventable and there are national programs that can reduce current health burdens. There are examples in other sectors as well. This is an example of using one paradigm for assessing the literature, and not taking a broader perspective. (IPCC WGII TSU)	The Chapter Team feels that the paradigm of 'prevention' inappropriate given the framing provided by Chapter 1 and Chapter 2, which tends to suggest that risk cannot be reduced to 0. This is due to the complex interaction between extremes in hazards, exposure and vulnerability and the fact that risk can be viewed from an individual or household perspective.
31	6	1	0	0	0	Table of Contents 6.2 is lacking the media as a main national actor yet media is a regular and important stake holder group and the original national platform design has media as one of the five main stakeholder groups. (Sanahuja , Haris Eduardo , Senior Consultant)	Attempts to recruit a contributing author have not been successful. Continued focus on addressing this area as we move forward beyond SOD.
32	6	1	0	0	0	Table of Contents 6.3 for 6.3.2. Strategies including Legislation, Institutions, and Finance....this is lacking three important points 1) demonstrating via a vi economic modeling how the costs of inaction or low action will be greatly surpassed by the need to invest in further addressing the worsened future impact. In other words, demonstrate through numbers how much more expensive it will be to do nothing or do little now compared to the future scenerios. People relate to hard dollar figures shown to them. 2) Instead of only looking at finance allocations, what needs to be addressed is the issue of HOW the national actors will pay for the increased needs both in terms of adaptation and addressing the impact of climate change generally. It will be increasingly more expensive and how is this going to be dealt with? 3) Communications Stratgy is needed to be included here. The current way this is structured is that the national actors will work amongst themselves to look after things. This model of operation, formerly satisfactory, is of course proving itself to be obsolete in terms of trying to deal with complex and wide ranging climate change - both in terms of trying to mitigate the worsening situation AND adapt... as well as respond to increasingly high impact events. Entire national communities, everyone... needs to be involved in some way and for this to happen there need to be an Outreach Communications Strategy also. The media involvement, as mentioned in the previous point, links well to this. (Sanahuja , Haris Eduardo , Senior Consultant)	On point 1: The section on costs in 6.4 has been strengthened in this regard, along with the appropriate section in Chapter 4. On point 2: a discussion of this is included in chapter 7 and the issue is touched on in 6.4. The literature on this matter is weak, but the chapter team will continue to search in order to address this issue. One point 3: the media dimension and communications strategy will be addressed more coherently once a suitable contributing author is identified. Some dimensions of communications are included in Chapter 5 and in the section 6.3.3 but we recognise that you are making different points here.
33	6	1	0	0	0	Table of Contents 6.3 for 6.3.3. Practices including Methods and Tools, Methods and Tools need corespond with the suggested changes to make them congruent. Also, methods and tools for integrative planning and policy and action generally need to be included as systems in place are based on Cartesian frameworks not conducive to integrative efforts. Also methods and tools from formal studies in management in turbulent environments would also be worthwhile considering for this section. (Sanahuja , Haris Eduardo , Senior Consultant)	Thank you for the comment. Taken into account when revising the chapter.

#	Ch	From Page	From Line	To Page	To Line	Comment	Response
34	6	1	1	30	64	Overall this chapter is a good FOD. It could be improved by strengthening the linkages with CCA. In particular it could highlight how lessons from DRM can inform CCA. The chapter touches on this point but does not elaborate. It talks a lot about risk but not opportunities and does not elaborate sufficiently on how to provide incentives to link the two issues. (Lim, Bo, United Nations Development Programme)	Strengthening of core messages aimed at CCA community and greater inclusion of the adaptation literature. Stronger focus on opportunities and incentives to be included as a feature of the process leading towards completion.
35	6	1	35	0	0	National strategies are strongly influenced by regional and international strategies, especially since governments are the architects of these strategies. For this reason there should be a subsub-sub section on the international and regional instruments, particularly the Hyogo Framework for Action, and the associated processes of national reporting on progress and Global Platform for Disaster Risk Reduction reviews and directions. (Basher, Reid, Secretariat of the High-Level Taskforce on the Global Framework for Climate Services)	Strengthened messages about linkages to the material in Chapter 7 and strengthened the discussion on the importance of the HFA in shaping national systems, including the executive summary.
36	6	2	0	3	0	Executive Summary This is more of a note on writing style but the numerical references to the sections of the chapter, I found disruptive to trying to read the summary, which was otherwise satisfactory. (Sanahuja, Haris Eduardo, Senior Consultant)	Checked with the TSU about the style and aligned to AR4 format
37	6	2	14	0	0	The Executive Summary is written very well because it provides guidance how to improve from the current status which usually can be characterized by an adaptation deficit. Such approach might be a very useful one also for other chapters addressing managing the risks of climate change. Furthermore this Executive Summary starts with a short description about the key topics addressed in the chapter. Again it is suggested to include such stopryline upfront of all executive summaries. (Radunsky, KLaus, Umweltbundesamt GmbH)	thank you, hope the revised version is also to your liking.
38	6	2	14	0	0	Executive Summary: Descriptive elements (e.g., reviewing evidence in support of particular strategies) and prescriptive elements (e.g., stating political goals) need to be separated more clearly. (Fuessel, Hans-Martin, European Environment Agency)	Effort made to remove prescriptive language in the Executive summary and elsewhere in the SOD
39	6	2	14	0	0	Consider restructuring your Executive Summary so that each paragraph presents a key summary statement, additional explanation, and reference to relevant chapter sections. This would provide a clearer presentation of the key points. To the extent possible, consider opportunities to present specific key findings, as well as the degree of certainty your author team has in those findings, per the new uncertainty guidance that will be available at LAM3. (IPCC WGII TSU)	Done. Executive summary redrafted
40	6	2	14	3	34	The Executive Summary is really an introduction to the chapter. Please see other chapters (e.g., 2 and 8) for examples of the style needed. (IPCC WGII TSU)	Done. Executive summary redrafted
41	6	2	16	2	29	There should be acknowledgement of the importance of national systems for prevention of exposure to hazards. (IPCC WGII TSU)	Done. Executive summary redrafted
42	6	2	17	2	17	Please define national systems here and in the main chapter. There are multiple and confusing references to the term which needs clarification. (Lim, Bo, United Nations Development Programme)	Done. Definition included
43	6	2	19	2	29	Language of the ES is tending to be policy-prescriptive; rephrase to be policy-neutral (Stocker, Thomas, IPCC WGI TSU)	Effort made to remove prescriptive language in the Executive summary and elsewhere in the SOD
44	6	2	21	2	23	Inadequate attention to private sector roles of businesses, industry and professions. (Wright, Richard, American Society of Civil Engineers)	Done. Executive summary redrafted recognising the role of the private sector
45	6	2	22	0	0	Delete 'cost' in the end of the line to keep the logic of the sentence" (Porfiriev, Boris, Institute for Economic Forecasting, Russian Academy of Sciences)	Done
46	6	2	25	0	0	Efforts "... to identify and assess the sources of risks, ..." (Basher, Reid, Secretariat of the High-Level Taskforce on the Global Framework for Climate Services)	Done
47	6	2	31	0	0	Surely this should "In virtually all countries, it is the government along with sub-national agencies that ...." (Basher, Reid, Secretariat of the High-Level Taskforce on the Global Framework for Climate Services)	Done. Executive summary redrafted in sections
48	6	2	31	2	42	Strange that the Hyogo Framework for Action (HFA) is not mentioned in the executive summary, particularly in terms of improving future national systems through both the current HFA mid-term review and the potential follow-up mechanism post-2015. (Kull, Daniel, International Federation of Red Cross and Red Crescent Societies (IFRC))	Done, reference now to the HFA
49	6	2	32	0	0	Insert 'of governance' after the words 'national system' to specify what kind of national system is implied (Porfiriev, Boris, Institute for Economic Forecasting, Russian Academy of Sciences)	Done
50	6	2	42	0	0	Somewhere in this summary, perhaps here, the Hyogo Framework and its associated processes, including the commitments made in resolutions by governments at the UN General Assembly, should be emphasised. These play a key role in stimulating awareness in policy ministries and providing guidance and international norms for disaster risk reduction and risk management. (Basher, Reid, Secretariat of the High-Level Taskforce on the Global Framework for Climate Services)	Yes we agree, properly covered in consultation with chapter 7. Strengthening of referal to the HFA throughout and cross-reference with chapter 7.

#	Ch	From Page	From Line	To Page	To Line	Comment	Response
51	6	2	44	2	46	Not only in countries, where governments are weak, other stakeholders undertake a greater proportion of risk management. Lots of LDC governments have no capacity because of other priorities to manage a reliable risk and disaster system. (Ammann, Walter J., Global Risk Forum GRF Davos)	This comment does seem to be relevant to the S 6.1 but in S 6.2.3 on CSOs and in managing the impacts. Yes have addressed this issue by noting that non-government stakeholders have an important role to play in DRM across a variety of different countries. The sections on 6.3.3.4 and 6.2.3 have particularly been strengthened in this regard.
52	6	2	45	2	45	CSOs need to be defined. (IPCC WGII TSU)	This comment does seem to be relevant to the S 6.1 but also in S 6.2.3 on CSOs. Yes have addressed this issue by noting that non-government stakeholders have an important role to play in national systems - strengthening 6.2 in this regard also. CSO definitions included in Chapter 5.
53	6	2	47	3	2	Too much focus is put on risk transfer (insurance) in the executive summary. It should be mentioned, but not in such detail (it only one of many approaches and should not be given pride of place). (Kull, Daniel, International Federation of Red Cross and Red Crescent Societies (IFRC))	Yes we agree. Risk transfer now harmonised across chapters and chapter team now feel it is dealt with appropriately, while recognising the importance of risk transfer to the <u>adaptation community</u> .
54	6	2	51	2	53	as per the comment above - this is not a question of will, but of fundamental factors driving the insurance industry (Surminski, Swenja, Association of British Insurers)	Yes we agree, issue of risk transfer now dealt with more <u>coherently across chapters</u> .
55	6	2	52	2	53	Needs better expression of this idea, since insurers always are dealing with risks due to "uncertainties and imperfect information." (Basher, Reid, Secretariat of the High-Level Taskforce on the Global Framework for Climate Services)	Recast in the rewrite of this section
56	6	3	14	3	14	Statements regarding changes in magnitude and/or frequency of extreme events must be consistent with Chapter 3; rephrase to include necessary specificity and qualifiers as provided in Chapter 3. (Stocker, Thomas, IPCC WGI TSU)	Now crosschecked with chapter 3
57	6	3	14	3	14	"...helping to create more extreme impacts..." -- what is meant by "helping to create"? Suggest rephrase to "resulting in". (Stocker, Thomas, IPCC WGI TSU)	ambiguity removed
58	6	3	19	3	20	This statement is tending to be policy-prescriptive; rephrase to be policy-neutral, eg by putting in order to (purpose) (Stocker, Thomas, IPCC WGI TSU)	Policy prescriptive sentence rewritten
59	6	3	19	3	20	This could be reframed as what the benefits would like to be if this was achieved. (IPCC WGII TSU)	Rewritten and reframed
60	6	3	19	3	34	Perhaps issues of responsibility/obligations should be mentioned here, particularly in terms of central government. Part of this would also be responsibility for coordination across all sectors and levels. In DRR this has been a real challenge (and we have not yet achieved a good level in most countries). (Kull, Daniel, International Federation of Red Cross and Red Crescent Societies (IFRC))	sentence removed alluding to this because of the subjectivity of the literature. Further consideration required in TOD
61	6	3	19	3	34	Incorporation of perspectives, priorities, capacities and needs of vulnerable communities in national-level dialogue and decision-making should be stressed. An enabling environment for community-driven approaches is needed. (Kull, Daniel, International Federation of Red Cross and Red Crescent Societies (IFRC))	Captured in the rewriting
62	6	3	20	0	0	It is worth adding security (safety)' dimension to recommendation of 'integrating development, environmental and humanitarian dimensions'. This would consider comprehensiveness and multifaceted nature of existing and future national security strategies (like 'total defense' and other) in USA, Europe, Japan, many emerging and developing economies. These strategies follow the broad concept of security, which implies its threats stemming from both military and non-military sources including natural hazards and their impact. In practice this involves ex-ante disaster preparedness and planning as an organic component of civil defense, and using military units as the basic emergency response arm (Japan, China, South East Asia, etc.) or enforcement in 'hard times' (most other nations). In the future the devastating capacity of natural disasters incurred by accelerating climate change and growing vulnerability of communities and economies to their impact may well increase. This would call for additional resources, equipment and skills provided by military while those in the civil protection component are in shortage. Given this one could think about the 'first-best' design of the integrated national security system with the civil (disaster management) and military (defense) components as its different but organic and interactive parts. (Porfiriev, Boris, Institute for Economic Forecasting, Russian Academy of Sciences)	Considered but no longer directly appropriate in the redrafted introduction.
63	6	3	36	3	36	I would suggest that you summarise the progress made to date on DRM and lessons for CCA. (Lim, Bo, United Nations Development Programme)	Messages sharpened in this regard throughout SOD
64	6	3	37	0	0	no comment (Yasseen, Adel, Ain Shams University - Institute of Environmental Research and Studies)	N/A
65	6	3	39	3	40	The sentence is incomplete. (Lavell, Allan, Programme for the Social Study of Risk and Disaster (FLACSO))	Addressed
66	6	3	39	3	40	Introduction 6.1 This sentence is awkward and could read The socioeconomic impacts of disasters can be significant in all countries, BUT IT IS WITHIN low and middle income countries, and especially the vulnerable within these countries, WHO often suffer the most..... (Sanahuja, Haris Eduardo, Senior Consultant)	Rewritten to better reflect the sense of intent of the sentence

#	Ch	From Page	From Line	To Page	To Line	Comment	Response
67	6	3	39	4	7	This type of information on disaster losses and impacts appears in all the chapters in one way or another. It would be best if there was a single statement placed at the beginning of the study thus avoiding duplication in each chapter--combine the info from all chapters in one statement at the beginning of chapter 1 for example, or prelude all with information on disaster losses and their behaviour over the last years as a background to all the chapters and themes dealt with in the study. (Lavell, Allan, Programme for the Social Study of Risk and Disaster (FLACSO))	Considered in discussion with chapter 1 and 4, now a more coherent set of messages in the SOD.
68	6	3	39	5	26	It should be more mentioned in the introduction and under-chapter dealing with developing issues, that the most important international institutions and global players in the field of developing processes and poverty reduction knows the mandatory connection between sustainable developing activities and risk and disaster management. Most developing processes (from NGOs, bi- or multi lateral, etc.) are aligned, assessed and evaluated on the MDGs. The importance of the integration of risk and disaster management in the MDC should be mentioned in this IPCC report. (Ammann, Walter J., Global Risk Forum GRF Davos)	Included a mention guiding role of of HFA
69	6	3	40	0	0	To illustrate in comparative and quatitative terms particular vulnerability of the low and middle-income countries I would propose to insert the table (table 21.1 on p. 370) from my chapter 'Disaster and Crisis Management in Transitional Societies: Commonalties and Peculiarities' in: Rodriguez, H., Quarantelli, E.L. and Dynes, R. (Eds) Handbook of Disaster Research. NY: Springer, 2006, pp. 368-387. The table is supplemented in a separate file enclosed. If acceptable this table may be applicable in the Special Report's chapter 3 considering vulnerability as a core. (Porfiriev, Boris, Institute for Economic Forecasting, Russian Academy of Sciencs)	To address with comments on the SOD
70	6	3	44	3	45	Specifics are needed; surely this is not for all disasters and for all years. (IPCC WGII TSU)	To clarify and address with comments on the SOD
71	6	3	51	3	52	Introduction 6.1 Suggest a change to .....Over the last SEVERAL years,growing literature has shown important adverse macroeconomic and developmental impacts of natural disasters ..... (Sanahuja , Haris Eduardo , Senior Consultant)	To further address with comments on the SOD
72	6	3	52	0	0	when have disasters been natural? Hazards may be but disasters are not – especially those driven by climate change and variability due to human interference with the climate system. (O'Brien, Geoff, Northumbria University)	Corrected
73	6	3	52	3	52	Please distinguish between climate related and other diasters here and elsewhere in the chapter. (Lim, Bo, United Nations Development Programme)	Made attempts to add clarification to many of the occassions where we use the term disasters. Will continue to a be a feature of our edits as we move to completion.
74	6	4	2	4	3	The argument as to whether disasters are a problem of, or problem for development is somewhat more sophisticated than this statement suggests--black or white. Some have argued that the tendency was or has been to argue unilaterally that disasters are a problem for development distracting from the basic concern that skewed development is the "cause" of disaster. Only by considering that side of the equation can arguments be constructed as to what to do to reduce disaster losses. So the ARGUMENT IS THAT WHILE DISASTERS ARE CLEARLY A PROBLEM FOR DEVELOPMENT IN MANY CIRCUMSTANCES, A MORE IMPORTANT AND PRIOR CONSIDERATION IS THAT THE DISASTERS THAT CAUSE PROBLEMS FOR DEVELOPMENT ARE MANY TIMES THE RESULT OF SKEWED DEVELOPMENT AND IT IS IN THAT FACT THAT AN OPPORTUNITY FOR DISASTER RISK REDUCTION EXISTS. (Lavell, Allan, Programme for the Social Study of Risk and Disaster (FLACSO))	We have provided a more balanced discussion and chapter 8 have addressed this issue more completely.
75	6	4	4	4	4	"...body of evidence proves..."-- evidence is information that helps form a conclusion; proof is factual information that verifies a conclusion. "body of evidence indicates" (or suggests; or concludes, etc.) (Stocker, Thomas, IPCC WGI TSU)	Addressed in rewrite.
76	6	4	9	4	17	This paragraph may be suited to some of the more developed countries, but the realities of this statement to be true as reflected in action and evidence on the ground has, most definately, not been my experience. Although ideally, what this paragraphs reflects is true, it does not often happen. Governments are not able to act as the last insurer, although it is indeed their moral authority to do so. One, of many examples comes to mind for example with the 2000 and 2001 Mozambique floods, where it has been widely reported that approximately 50% (or 200 million US dollars) of relief and redevelopment money went astray under Government control within about 24 months. The point here is that even if systems are structurally set up, they are not working. Moreover, not all countries have systems, and where they do exist, they can be very diverse in terms of structure and levels of integrations, as it can be seen (at least) in several Latin American countries. (Sanahuja , Haris Eduardo , Senior Consultant)	To address with SOD comments
77	6	4	9	4	26	An important caveat here is that not all countries have systems--in fact many still have a mono organizational structure. May be wise to outline at the beginning the different exceptions being used to talk of systems as these vary greatly--the systems in Colombia, Nicaragua or Bolivia in Latin America are vastly different to the "system" in Costa Rica, Honduras and Guatemala for example. There are many sui generis models for "systems". (Lavell, Allan, Programme for the Social Study of Risk and Disaster (FLACSO))	Changed the text to capture this issue

#	Ch	From Page	From Line	To Page	To Line	Comment	Response
78	6	4	10	4	10	Maybe this should read "to tackle disaster risks, including those associated with climate extremes and variability" If not it seems to suggest there are systems for both climate extremes on the one hand and disaster risks on the other and certainly I know of no systems for climate extremes as such and precisely one of the problems of the institutional setups to deal with the climate change and extreme event problem is that this is limited essentially to environmental ministries and weather organizations and divorced from development sectors and institutions. (Lavell, Allan, Programme for the Social Study of Risk and Disaster (FLACSO))	point noted, thanks
79	6	4	10	4	11	This statement "many national governments have developed national systems for tackling climate extremes and disaster risks"...could be misleading and could portray a false sense of security. While the neutral scientific evidence collectively mounting towards consistency regarding climate change has been accepted formally by many, if not most governments, we have seen very little action executed. The action that has been executed is mostly structurally in terms of improving governance and policy. The HFA is very young, and I would not say that many governments have sustainable and well FUNCTIONING systems and that is the goal. Also, I feel it is risky to use the phrase ...climate extremes ...because the reader could confuse this to mean the extreme events caused by climate change. And governments are not equipped for the extreme events resultant from climate change ... (Sanahuja , Haris Eduardo , Senior Consultant)	changed to refer to DRM
80	6	4	19	4	20	Beware of bald advice to governments to "redesign". Better to write "... would be designed to fully integrate ...." (Basher, Reid, Secretariat of the High-Level Taskforce on the Global Framework for Climate Services)	texts revised to reflect this issue
81	6	4	19	4	20	I would say here ...National level government has the POTENTIAL to mainstream, not has the ABILITY, as they are not practising things much, which would indicate they are "able". The rest of this paragraph is solid. (Sanahuja , Haris Eduardo , Senior Consultant)	Done
82	6	4	25	4	25	The statement about government decisions pertaining to longer time horizons needs to be either corrected or explained as it is <b>certainly not correct as a general statement.</b> (Lim, Bo, United Nations Development Programme)	sentence edited slightly to remove this confusion
83	6	4	30	4	44	This paragraph is repetitive with other information presented earlier. (IPCC WGII TSU)	Addressed in the rewrite.
84	6	4	39	4	40	Replace 'national risk management systems' by 'national disaster management systems'" (Porfiriev, Boris, Institute for Economic Forecasting, Russian Academy of Sciencs)	Move towards normalised use of the term, national disaster risk management systems, (to include the systems developed for managing the impacts of disasters (residual risk).
85	6	4	44	4	45	English - fix to refer to all such states, or to only the two example states. (Basher, Reid, Secretariat of the High-Level Taskforce on the Global Framework for Climate Services)	Addressed in re-write.
86	6	4	46	4	48	From the outset maybe it should be clarified that in many parts where systems or other similar institutional figures have been created the levels of success in implementation etc are not that good and in cases like Colombia have tended to go down over time. This would allow us to balance a statement that says "despite significant recent progress in developing national systems....measures to reduce the risks of disasters are still insufficiently taken..." What is the measure of the progress of a system--its formal structure and existence, its concept and level of inclusivity, or its level of success in achieving its objectives? I would suggest that progress is made according to the last criteria when used as a measuring tool. And given the relative failure of many systems, many now question the overall nature of systems now created and are flowing to the idea of two systems--one for response and one for reduction linked to development actors, with coordinating mechanisms to connect the two where relevant and needed. This is part of the ongoing debate today as to integral risk management systems in Latin America for example. (Lavell, Allan, Programme for the Social Study of Risk and Disaster (FLACSO))	We agree, highlight the need of coordination between DRR and DM. Reflected in subsectio 6.3.3.4 and in 6.3.3.2, which tend to separate the discussion of two different types of systems
87	6	4	49	0	0	While the numbers cited to prove that donors and financial institutions allocate about 90% of their disaster management 50 funds for relief and reconstruction and, only about 10% of the funds for disaster risk management look truthful these are perceived an exaggeration when applied to the countries. One could immediately recollect massive investments in structural measures of disaster mitigation like construction of dams and dikes, earthquake resistant buildings, soil anti-erosion measures, etc. This leaves alone expenses on spacecraft launches and exploitation to provide weather (and disasters) monitoring and forecasting. The list could be easily continued but the itmes mentioned above are sufficient proof for the more accurate way of accounting and calculating the costs of mitigation of, response to and recovery from disasters. My rough estimate for Russia is some 2/3 for disaster reponse and recovery (including relief and reconstruction) and 1/3 for disaster risk management (in broad terms). (Porfiriev, Boris, Institute for Economic Forecasting, Russian Academy of Sciencs)	The values cited are clearly ballpark estimates for donors, and based on the quantitative and qualitative Tearfund review. The recent WB/UN review "Natural Hazards, UnNatural Disasters" looks into country spending, and the range for four countries looked at (Colombia, Mexico, Nepla, Indonesia) seems between 10% to 30%, while for Colombia pre disaster spending actually topped post disaster spending. Yet, numbers have to used with caution. The basic point on post disaster spending exceeding ex ante spending and the underinvestment in prevention is however supported by many documents. We qualify this point "at times allocated " and cite the difficulties of accounting for theses items, so we would think we addressed this properly.

#	Ch	From Page	From Line	To Page	To Line	Comment	Response
88	6	4	49	0	0	Not just insurance but "risk financing tools". (Basher, Reid, Secretariat of the High-Level Taskforce on the Global Framework for Climate Services)	We agree, other tools now included throughout chapter
89	6	4	51	4	52	This is an hypothesis and one of the arguments that has been put forward. But there are others and certainly it is not proven this is the major reason for lack of advance. The reason is probably considerably more complex than the problem of cost benefit. Natural scientists argue it is lack of consideration of hard info on hazard incidence by decision makers, others argue that the problem is just not serious enough when compared to other ongoing social and economic problems that compete for attention and finance, and in fact when it comes to developed countries and many developing countries disasters are a business as opposed to a cost etc etc. (Lavell, Allan, Programme for the Social Study of Risk and Disaster (FLACSO))	We think the statement is comprehensive. We have complemented the idea by including opportunity cost dimension and competing interests and priorities
90	6	4	53	4	54	There is no widescale evidence this statement is true. A study we undertook on the decision to retrofit hospitals in Costa Rica during the 80s never revealed a single cost benefit study--the decision was taken on "blame reducing" principles, ethical considerations and cost aspects but not cost benefit considerations. I am sure this is the case in many places although I dont deny that many do do cost benefit analysis especially with new investments--but changing a community from one place to another is rarely accompanied by cost benefit considerations given help to the poor and destitute rarely shows a positive sign under such analysis. (Lavell, Allan, Programme for the Social Study of Risk and Disaster (FLACSO))	I think this is true, and there is good evidence for it, see Benson, C. and J. Twigg, 2004. The statement is not on cost-benefit analysis as an analytical tool, but is on governments being interested what the wider costs and benefits, pros and cons of implementing options are.
91	6	4	55	5	1	I believe too tough to estimate the number studies on economic effectiveness of disaster adaptation measures as 'very limited'. I would drop 'very' and recommend to add to the list of works mentioned in parenthesis some other publications. These include, f.i.: 1) The Economic Value of Current and Improved Weather Forecasts to US Households. Stratus Consulting Inc. for NOAA, Washington, DC, November 2003 at: <a href="http://www.magazine.noaa.gov/stories/mag99.htm">http://www.magazine.noaa.gov/stories/mag99.htm</a> ; 2) An Investigation of the Economic and Social Value of Selected NOAA Data and Products for Geostationary Operational Environmental Satellites (GOES). A Report to NOAA's National Climatic Data Center. and National Environmental Satellite, Data and Information Service (NESDIS). CENTREC Consulting Group, LLC. Savoy, IL, 28 February 2007; 3) Anderson, W. (Ed.) Disaster Risk Management in an Age of Climate Change: A Summary of the April 3, 2008 Workshop of the Disasters Roundtable. Washington DC: National Academy Press, 2008. By the way, the outcomes of these studies corroborate the estimate that 1\$ invested in disaster risk reduction saves some 4\$ in terms of expected but escaped losses and costs. (Porfiriev, Boris, Institute for Economic Forecasting, Russian Academy of Sciences)	Ok, accepted, and we have now replaced "very limited" by "some studies". I managed to find the first study, which is very relevant, and added it to the references.
92	6	5	1	0	7	this is a repetition of what was presented in line 46-55 on page 4 (Vordzorgbe, Seth, UNDP)	Now addressed
93	6	5	6	5	6	"...they are happy to..." -- information is better presented when provided in a neutral, objective tone without emotive statements. Suggest rephrasing sentence, deleting "they are happy to". (Stocker, Thomas, IPCC WGI TSU)	Modified
94	6	5	7	5	7	After line 7, which is the end of that paragraph, I would add something regarding how there is usually far less controls and checks and balances as to how governments spend relief funds as opposed to how they would spend DRR money, which would be controlled far more closely. (Sanahuja , Haris Eduardo , Senior Consultant)	This is a good comment, but now the text has been changed to relate to international agencies, for which this is less true, so we leave it out for now. "Many international agencies also continue to invest considerable funds into high profile, post-disaster response particularly when these are reported in media stories."
95	6	5	13	0	29	It discusses what government agencies are well-placed to do. It would help to also show what they are actually doing at national, sub-national and local levels, if such information exists. This would also be a good place to state that disaster reduction is ultimately a governance issue and to highlight some key governance issues relating the functions of government agencies. (Vordzorgbe, Seth, UNDP)	To clarify and address with comments on the SOD
96	6	5	29	0	0	no comment (Yasseen, Adel, Ain Shams University - Institute of Environmental Research and Studies)	N/A
97	6	5	29	6	29	This section should discuss national emergency response committees, along with evidence of their effectiveness and opportunities for improvement -- with examples. (IPCC WGII TSU)	National response committees now discussed explicitly in 6.3.3.4
98	6	5	31	5	37	The role of the media needs to be included here. (Sanahuja , Haris Eduardo , Senior Consultant)	Attempts to recruit a contributing author have not been successful. Continued focus on addressing this area as we move forward beyond SOD.
99	6	5	33	5	34	Here again one is implying there is a system specifically established today and tomorrow for climate related disaster risks as opposed to a system for all disaster risk related aspects. Clearly there is no system existing today specifically for climate related risks, so best change this way of expressing things. Maybe in the future it will be decided that climate and climate change risk is of such importance that it deserves a single integral climate change risk system to deal with it but that is not the case today, or if it is not widely held to as yet. (Lavell, Allan, Programme for the Social Study of Risk and Disaster (FLACSO))	We agree, we will illustrate the variations and is related to the next comment 100

#	Ch	From Page	From Line	To Page	To Line	Comment	Response
100	6	5	42	0	0	Section 6.2.1 discusses "National and Sub-national Government Agencies". However, it does not present as typology of government agencies engaged in disaster and climate risk management. Such a typology, linked to the categories of the level of human development and of national disaster management systems, would provide a guide to the evolution of national agencies. This topic is under-treated in the literature. (Vordzorgbe, Seth, UNDP)	To address with comments on the SOD
101	6	5	42	0	0	Line 42 onwards discusses welfare theory imperatives according to which the state should behave in a prescriptive manner. If the typology suggested in the comment above were presented, the next step would have been to show how these normative prescriptions shape the type of agency that eventuates (in the typology). It would help establish a link between the governance responsiveness of a state and the type of disaster management agency in place. (Vordzorgbe, Seth, UNDP)	To address with comments on the SOD
102	6	5	42	0	0	Section 6.2.1, line 42 onwards talks about responsibilities of the government in providing services for safety from disasters. Responsibilities under international law also need to be presented. Further, it is necessary to bring in the rights of the citizen within the context of a rights-based approach to disaster reduction. (Vordzorgbe, Seth, UNDP)	Has been included a reference to ISDR (1994) Yokohama Strategy and Plan of Action for a Safer World, Guidelines for Natural Disaster Prevention, Preparedness and Mitigation, World Conference on Natural Disaster Reduction Geneva. In that document the ISDR stated that every country has the primary responsibility to protect its people from natural disasters
103	6	5	42	5	43	Not every government might follow you on this, so: Where is this laid down? Is this part of the Declaration of Human Rights? Please cite the source and be careful not to mix wishful thinking and / or peoples' expectations with legal conditions. (Rock, Joachim, Johann Heinrich von Thuenen-Institute)	Has been included a reference to ISDR (1994) Yokohama Strategy and Plan of Action for a Safer World, Guidelines for Natural Disaster Prevention, Preparedness and Mitigation, World Conference on Natural Disaster Reduction Geneva. In that document the ISDR stated that every country has the primary responsibility to protect its people from natural disasters
104	6	5	43	5	43	"National" or natural? Why only national disasters and how is that defined? (Lavell, Allan, Programme for the Social Study of Risk and Disaster (FLACSO))	The word national has been removed.
105	6	5	45	5	45	CCCD: reference is missing in literature section. (Rock, Joachim, Johann Heinrich von Thuenen-Institute)	Included
106	6	5	49	5	51	I am assuming this is an error, the 1959 date of the reference.....As one example, 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 (see Muserave, 1959). (Sanahuja, Haris Eduardo, Senior Consultant)	Checked and confirmed
107	6	6	0	0	0	section 6.2.2 is muddled (O'Brien, Geoff, Northumbria University)	Rewritten this section to make it clearer
108	6	6	0	0	0	The section focussed inordinately on the risk transfer and risk financing roles of the private sector. What about other roles of the private sector in disaster risk reduction, e.g. information-communication technology, transportation services, knowledge services? It would also be useful to indicate which private sector activities are most beneficial and are needed to increase the impact of institutional services on building resilience and reducing disaster losses. Similarly, the constraints and challenges facing the private sector in enhancing its contributing to disaster reduction should be identified. (Vordzorgbe, Seth, UNDP)	Other roles adopted by the private sector now included but not space to be entirely comprehensive. Warrants further attention beyond SOD.
109	6	6	11	6	11	Chapter 3 should also be cited here. (Stocker, Thomas, IPCC WGI TSU)	To address with comments on the SOD
110	6	6	20	6	29	This information is repeated elsewhere in the chapter. (IPCC WGII TSU)	It is included here in more detail
111	6	6	29	6	29	After this line, I would also add something about an increasing role of the government will be to secure the necessary funding needed to increase their DRR and response and climate change adaptation and mitigation action. More and more money and people will be needed and this growing demand needs to be addressed and planned for accordingly. (Sanahuja, Haris Eduardo, Senior Consultant)	We have expanded the discussion of this issue. The funds could be used to address "adaptation deficit" and sustainable development and DRR
112	6	6	29	7	21	For this section I suggest reviewing the ECLAC/IDB report on Information on disaster risk management. Case studies of five countries. Summary Report, LC/MEX/L.806, December 2007 ( <a href="http://www.eclac.cl/cgi-bin/getProd.asp?xml=/publicaciones/xml/9/33649/P33649.xml&amp;xsl=/mexico/tpl-i/p9f.xsl&amp;base=/mexico/tpl/top-bottom.xslt">http://www.eclac.cl/cgi-bin/getProd.asp?xml=/publicaciones/xml/9/33649/P33649.xml&amp;xsl=/mexico/tpl-i/p9f.xsl&amp;base=/mexico/tpl/top-bottom.xslt</a> ) and the five national case studies conducted for Colombia, Mexico, Nicaragua, Jamaica and Chile. (Zapata-Marti, Ricardo, United Nations Economic Commission for Latin America and the Caribbean (ECLAC))	To address with comments on the SOD

#	Ch	From Page	From Line	To Page	To Line	Comment	Response
113	6	6	31	6	31	I would like to add: In the case of CCA, the institutional arrangements for climate are often separate from DRM. Based on a recent review of national institutional arrangements (UNDP, 2010), co-ordination mechanisms exist for both issues. However in the case of CCA, the lead ministry is typically environment with weak intersectoral co-ordination authority and with only 50% of the 3 countries reviewed having interministerial committees. Only 4 out of 32 out of countries had climate change placed outside environment, such as Philippines, Maldives, PNG, and Thailand. Linking DRM to CCA will require a revamp of existing institutional arrangements on both fronts. (Lim, Bo, United Nations Development Programme)	We agree, have pursued reference. It is not yet published and fully available. Attempts made to reflect this sense more clearly in the overall text. Also included clearly in sections elsewhere in the report and in the SPM.
114	6	6	32	6	46	Private sector roles in adaptation go far beyond those of the insurance industry. Acknowledge the abilities and needs for investments by industries and businesses and the skills of the professions (architects, engineers, planners, etc.). Trade associations have important roles, too, as sources of information for adaptation measures. (Wright, Richard, American Society of Civil Engineers)	Agree, section now expanded
115	6	6	32	6	46	This section needs a discussion of organizations other than insurance. There is the example of a private business in the US (I think it was Walmart, but am not sure) that was more effective than the government in providing drinking water following Katrina. (IPCC WGII TSU)	Agree, section now expanded
116	6	6	34	6	46	The private sector is MUCH larger than the insurance industry! You miss informal work by e. g. business associations completely. Their scope includes collecting and disseminating information, stakeholder representation in various ways etc. In addition, implementing protective or adaptive measures in enterprise organisation and internal management is part of this "private sector". Not to mention day-to-day behaviour of citizens ... (Rock, Joachim, Johann Heinrich von Thuenen-Institute)	Agree, section now expanded
117	6	6	34	6	46	This paragraph, although containing good information is somewhat dated. There should be additional text added surrounding the following points: a) addressing the increasing number of people affected by extreme events, b) building up the necessary DRR and c) implementing adaptation and mitigation measures for climate change, will take an all out effort from the nation as a whole, down to action at the level of each and every able individual. Private sector efforts need become the norm and follow the line of Corporate Social Responsibility as in building into their very DNA, the development of all forms of resilience within their entity and workers and within the community they operate in and serve. DRR and addressing climate change would be part of building that resilience within their corporation and within the community they serve. One example to note within the UN family could be the UN Global Compact Caring for Climate (Sanahuja, Haris Eduardo, Senior Consultant)	This is prescriptive language, and thus cannot be considered. There are many tradeoffs and constraints for private business to consider, and climate change may only be one. We have text on corporate social responsibility now. The UN Global Compact Caring for Climate is a voluntary mechanism for business to report emissions, and thus not as relevant here.
118	6	6	35	6	35	"ideally" is a rather general term; suggest using a clearer term, eg "most effectively" if that is what is meant (Stocker, Thomas, IPCC WGI TSU)	Accepted and done
119	6	6	36	6	40	This information is repeated elsewhere in the chapter. (IPCC WGII TSU)	We could not find the overlap
120	6	6	43	6	46	this statement needs further explanation - why are insurers not doing it? (Surminski, Swenja, Association of British Insurers)	Ambiguity aversion mentioned
121	6	6	49	7	21	Is this the place to mention the roles of the professions? (Wright, Richard, American Society of Civil Engineers)	Based on the limited literature we mentioned sectors rather than professions.
122	6	6	49	7	21	This section needs a discussion of the Red Cross, Oxfam, and other NGOs that work extensively with developing countries in managing disaster risks. For example, it could mention the extensive training the Red Cross is providing on vulnerability assessments, etc. (IPCC WGII TSU)	We agree. The roles of CSOs and CBOs added to and discussion extended to other roles.
123	6	6	51	0	0	CSOs and CBOs are not engaged in delivery of disaster management services only because they may be more cost-effective. There are other advantages of using CSOs and CBOs which need to be mentioned. (Vordzorgbe, Seth, UNDP)	We agree. The roles of CSOs and CBOs added to and discussion extended to other roles.
124	6	6	51	7	21	There are analysis and considerations here that do not appear in chapter 5 on local efforts. The question is whether what is here should be transferred to chapter 5 or left here or some combination of the two "solutions" used. (Lavell, Allan, Programme for the Social Study of Risk and Disaster (FLACSO))	We are comfortable with a degree of overlap and coverage of the topic from different chapter perspectives.
125	6	6	51	7	21	Please give a clear differentiator between CSOs and the private sector. Why did you omit the CBOs from the text? They are mentioned in the header but no reference is made to them in the text. (Rock, Joachim, Johann Heinrich von Thuenen-Institute)	We agree. The roles of CSOs and CBOs added to and discussion extended to other roles.
126	6	7	13	7	15	If you read this lines, you get the impression that Oxfam, Care et al know exactly what to do in order to adapt on a local level, they only need to raise money. This seems to be very optimistic. (Bardt, Hubertus, Cologne Institute for Economic Research)	We agree. The roles of CSOs and CBOs added to and discussion extended to other roles. Stronger critical evaluation element considered.
127	6	7	13	7	21	There needs to be information on these examples, not just say that they exist. Are they effective? Why? What are the lessons that national systems can take and replicate? (IPCC WGII TSU)	Could not find adequate robust evaluations of the literature in this area after checking with a number of specialists. NGO evaluations tend not to be public documents.
128	6	7	20	0	0	After parenthesis and fullstop insert: "In addition, in some countries civil society as a key social actor is in its early stage of development providing for the weakness and sparsity of CSOs". (Porfiriev, Boris, Institute for Economic Forecasting, Russian Academy of Sciences)	Could not locate the relevant literature to support this point.

#	Ch	From Page	From Line	To Page	To Line	Comment	Response
129	6	7	26	0	53	Line 26 states that bilateral and multi-lateral agencies assume significant roles in disaster risk management (DRM) when governments are weak and have limited resources, but these agencies have roles to play in both developed and developing countries. The subsection could show examples of how these agencies have supported DRM and the types of coordination mechanisms used by donors to support DRM. (Vordzorebe, Seth, UNDP)	To be further addressed when addressing SOD comments
130	6	7	35	7	35	I would like to add: In the case of UNDP, efforts have been made since 2007 with a joint framework to link DRM and CCA, but progress has been hindered by lack of incentives and separate management structures. Within the UN system there are separate UNDG guidelines for incorporating DRM and CCA into UN programmes. Clearly these separate approaches create on-going fragmentation. (Lim, Bo, United Nations Development Programme)	To be further addressed when addressing SOD comments
131	6	7	35	7	40	The concept of the donors separating adaptation from DRR and both from mitigation is very important and should be discussed in more detail here with some ideas as to what to do about this issue as the money shapes the action. (Sanahuja, Haris Eduardo, Senior Consultant)	To be further addressed when addressing SOD comments
132	6	8	2	8	2	I would like to add: It has been argued that changes in budget allocation can be facilitated by direct budget support more effectively than CCA or DRM projects. (Lim, Bo, United Nations Development Programme)	To be further addressed when addressing SOD comments
133	6	8	5	8	26	Engineering and environmental design professional societies and many technical associations (such as the American Concrete Institute) merit mention as scientific and research organizations. (Wright, Richard, American Society of Civil Engineers)	Because space limitation we are not considering the inclusion of a list of research associations or organizations. Also if we include engineering research organization, we will have to include all kind of research organizations, so the list could be quite extensive
134	6	8	7	8	10	This statement may be true in an ideal world but actually the effectiveness of governmental action depends on so far much more than having the solid scientific data on which to make decisions. Sound data and quantitative and qualitative rigorous information is however a first critical step. (Sanahuja, Haris Eduardo, Senior Consultant)	Discussion of this comment has been included
135	6	8	7	8	26	Maybe mention of the recent ICSU-ISSC-ISDR promoted Integrated Research programme is warranted here. (Lavell, Allan, Programme for the Social Study of Risk and Disaster (FLACSO))	Because space limitation we are not considering the inclusion of a list of research institutions.
136	6	8	18	8	20	The discussion on early warning systems needs to be unpacked. What works? Under what conditions? Why? Etc. In addition, the critical role of effective response strategies needs to be discussed. (IPCC WGII TSU)	We agree in this comment, though now considered under 6.3.1.2 and included in further elaboration in 6.3.3
137	6	8	26	8	26	A statement could be added to this paragraph indicating the important role of the scientific and research communities working closely with DRR and climate leadership nationally as they will be needed increasingly to shore up human resource and expertise needed, especially in new subject areas where information and knowledge still rests most comprehensively within the research community at this time. (Sanahuja, Haris Eduardo, Senior Consultant)	Emphasis expanded - role of scientists and research in improved DRM & working with communities, see and check with 6.3.3.1.1
138	6	8	27	8	27	In different ways some components of the integrative Risk Reduction and Disaster Management approach are mentioned. An explicit definition and explanation of such an approach involving all stakeholders and reaching the most vulnerable people to strengthen their resilience is missing. 6.3.1 notes very briefly the integrated Risk Management. Before the chapter 6.3 starts would be an adequate space to describe such an approach. (Ammann, Walter J., Global Risk Forum GRF Davos)	Now considered more explicitly in 6.3.3.4.
139	6	8	27	8	27	This is an important statement. However I think it must be mentioned here that an important challenge and limitation of sciences is to build a meaningful interface with society. This can best be achieved by extending multi- and interdisciplinary research towards transdisciplinary knowledge co-production. I suggest to add in line 27 the following sentence: "In order to overcome the limitations related to the difficult transfer of scientific knowledge about climate change to the wider society it is important that sciences learn how to co-produce knowledge together with policy makers and other non-academic stakeholders (Cash et al. 2006, Lemos & Morehouse 2005). The current state of art suggests that the best option of practically and productively deal with the interfaces of knowledge of the scientific and non-scientific (stakeholders) communities sustainability science has made considerable progress in understanding and acting upon these interfaces by promoting interactive co-production of knowledge between scientific and other actors, based on transdisciplinarity (Jasanov 2004, Pohl et al. 2010) and social learning (Pelling et al. 2008, Pahl-Wostl, 2009). Pohl C, Rist S, Zimmermann A, Fry P, Gurung GS, Schneider F, Ifejika Speranza C, Kiteme B, Boillat S, Serrano E, Hirsch Hadorn G, Wiesmann U. 2010. Researchers' roles in knowledge co-production: experience from sustainability research in Kenya, Switzerland, Bolivia and Nepal. Science and Public Policy 37 (4) 267-281. Jasanoff S. 2004. States of knowledge the co-production of science and social order. London, Routledge. Pelling M, High C, Dearing J, Smith D. 2008. Shadow spaces for social learning: A relational understanding of adaptive capacity to climate change within organisations. Environment and Planning A 40 (4) 867-884. Cash DW, Borck JC, Patt AG. 2006. Countering the Loading-Dock Approach to Linking Science and Decision Making: Comparative Analysis of El Niño/Southern Oscillation (ENSO) Forecasting Systems. Science Technology Human Values 31 (4) 465-495. Lemos MC, Morehouse BJ. 2005. The co-production of science and policy in integrated climate assessments. Global Environmental Change-Human And Policy Dimensions 15 (1) 57-68. (Rist, Stephan, Centre for Development and Environment (CDE))	This idea was expanded - gap between science and society - chapter checking with ch. 1- to be addressed with SOD comments

#	Ch	From Page	From Line	To Page	To Line	Comment	Response
140	6	8	29	0	0	for this part , I suggest that "innovative" or/and futuristic studies that could be undertaken by any institution in the region might be considered here. (Yasseen, Adel, Ain Shams University - Institute of Environmental Research and Studies)	Thank you for the comment. We have conducted a reasonably intensive review of literature in this area but it is impossible to cover all literature. Any additions we can identify will be incorporated where appropriate.
141	6	8	31	0	42	this is a summary that is not needed. (Vordzorgbe, Seth, UNDP)	Yes, but we feel it is important to re-emphasise the approach to help the reader understand the structure.
142	6	8	31	8	42	Examples are needed of the different contexts described and bibliographic back up as well (Lavell, Allan, Programme for the Social Study of Risk and Disaster (FLACSO))	Attempts will be made to further elaborate the systems perspective as new sources are identified as we move toward completion.
143	6	8	31	8	51	This information is repeated elsewhere in the chapter. (IPCC WGII TSU)	Yes, but we feel it is important to re-emphasise the approach to help the reader understand the structure.
144	6	8	44	0	51	this sub-section repeats what is in Section 6.3.1, line 3-13, page 9. Both can be merged. (Vordzorgbe, Seth, UNDP)	6.3.1 now modified slightly to create stronger separation.
145	6	8	50	8	51	..three main categories : here strategies come first, then planning, and at last come practices. So, the three categories need to be rearranged. (Yasseen, Adel, Ain Shams University - Institute of Environmental Research and Studies)	Definitions of scope of plans, policies and strategies are variable, and use of term "strategy" seems to refer to broad and specific actions. We are happy to maintain the structure here.
146	6	9	0	0	0	while discussing the range of options (no-regret, etc), it would be instructive to also present the causes, status, limits and effects of mal-adjustment to climate change. States/conditions of mal-adjustment represent the scope of the task at hand in inducing adaptation to future effects of climate change (Vordzorgbe, Seth, UNDP)	Agree. Included in the reformatting of this section. Made reference to Section 1.4.3, which has an excellent discussion on mal-adjustment or maladaptation.
147	6	9	1	9	1	Why the use of "integrated" as opposed to "integral"? There is a big debate on this distinction and they are clearly not the same. In fact in Central America governments refused to allow the use of the Integrated Risk Management terminology during the formulation and approval in June 2010 of the Central American Integral Disaster Risk Management Policy. They were willing to be integral but not integrated!! This is highly significant when it comes to cross border river basin planning for example, where integration is necessary but national ideologies and concerns impede integration of efforts for diverse political or ideological reasons. (Lavell, Allan, Programme for the Social Study of Risk and Disaster (FLACSO))	Agree. At this stage however, we are left with the accepted sub-section headings., but the text reflects the issues raised
148	6	9	1	9	1	This subtitle I would confine it to: "Policies & Strategies", leaving planning for the next section. (Yasseen, Adel, Ain Shams University - Institute of Environmental Research and Studies)	At this stage, it would be difficult to change sub-section titles. (For consideration by Secretariat?)
149	6	9	1	9	1	Why are policies discussed before strategies? Given that strategies determine policies, it would make sense to have these sections reversed. (IPCC WGII TSU)	See response to Comment 145. Definitions of plans, policies and strategies seem to be variable, with some sources defining a plan and policy as a high level option for action while a strategy can refer to both high level and specific detailed implementation actions. It also may be too late to revisit the Table of Contents.
150	6	9	3	9	13	This paragraph could include addressing the function of securing the additional financial and human resources needed for increasing demands. (Sanahuja , Haris Eduardo , Senior Consultant)	Agree - added function of securing financial and human resources.
151	6	9	6	9	13	This information is repeated elsewhere in the chapter. (IPCC WGII TSU)	Deleted some text to reduce repeats.
152	6	9	20	0	0	These concepts of no-regret, high-regret, etc are good but cannot serve as the organizing principle for action by agencies. It is necessary to indicate the typology of national and sector level policy processes and their determinants and describe processes for setting and sustaining DRM policy (Vordzorgbe, Seth, UNDP)	Section has been re-organized and re-formatted to outline a more consistent typology. Additional references provided to back this somewhat revised typology and structure. Alternates to no-regret and high-regret terminology also added.
153	6	9	20	0	23	applies to all options, not just the 'no-regrets' (Vordzorgbe, Seth, UNDP)	Agree - reorganized discussion and use of "regrets" terminology and typology.
154	6	9	38	9	39	Why has a "triple-win" action FOUR benefiting topics? (Rock, Joachim, Johann Heinrich von Thuenen-Institute)	Agree- simply used term "win-win" instead, regardless of multiple synergies.
155	6	9	40	0	0	no-regret is also a win-win option (Vordzorgbe, Seth, UNDP)	Agree - reorganized typology and discussion reflects this comment.
156	6	9	41	9	42	Examples are needed. (IPCC WGII TSU)	Added some brief examples, within word limitations.
157	6	9	42	0	45	these also exist in no-regret options (Vordzorgbe, Seth, UNDP)	Agree. Reflected in new reorganized text.
158	6	9	49	9	50	What about the consequences of high impact events? (IPCC WGII TSU)	Agree. Reflected in revised text.

#	Ch	From Page	From Line	To Page	To Line	Comment	Response
159	6	10	0	0	0	lots of problem description but little analysis of what to do – mainstreaming is a huge issue and the main problem lies often in the disconnect between functions – more analysis here could be useful (O'Brien, Geoff, Northumbria University)	Literature is sparse on implementation and national success stories. Nonetheless, rewrote the discussion on "mainstreaming". Since "mainstreaming" is often mentioned as the DDR and CCA solution in other REX Chapters, added new materials and references but needed to respect text length constraints. Hopefully, the added content is sufficient.
160	6	10	0	0	0	Several issues relating to mainstreaming need to be covered, including: policy and operational differences between mainstreaming in sectors versus in organizations and in themes, the entry points for mainstreaming DRM and CRM in development processes, and, indicators for effective mainstreaming. (Vordzorgbe, Seth, UNDP)	Added new materials respecting length limitations for text as well as a new diagram and new references to support "mainstreaming" discussion. SREX report overall may need greater discussion and coordination on "mainstreaming" since all chapters refer to this "solution" for DDR and CCA and development synergies. First discussion on "mainstreaming" in SREX report takes place in this sub-section.
161	6	10	1	10	49	It may be good in this section to prelude the discussion of mainstreaming with a comment and documentation of the fact that a growing number of specialists are not overly enamoured with the notion of mainstreaming DRM into development. This is so because there is preference for seeing the problem more in terms of DRM and DRR helping define development using, amongst other things, risk reduction and control as a criteria. Thus the difference is between introducing something-DRM - into development thus "improving" it or, rather, redefining development such that DRM is an integral part of it and its definition. The problem with mainstreaming as an idea is that, amongst other things, it has led to sectorialisation of DRM whereby special offices and units are set up to mainstream it in sectors and territories and in the end they land up separating it off from other integral aspects--see forthcoming Wisner, Gaillard, Kelman edited tome for a consideration of this. (Lavell, Allan, Programme for the Social Study of Risk and Disaster (FLACSO))	Restructured and increased length of "mainstreaming" section, given length constraints. Have discussed the challenges and realities of "mainstreaming" in revised text and particularly, the important of cross-sectoral and cross-scale linkages to avoid "stove pipes". Hopefully, this will capture some of the difficult realities of mainstreaming.
162	6	10	3	0	12	The presentation needs to show examples of how DRM mainstreaming has been done (Vordzorgbe, Seth, UNDP)	Added brief examples (although good national examples from the published literature are limited - mostly project based).
163	6	10	3	10	12	This paragraph hits on a number of very key points. It is indeed effective to join development planning efforts and fiscal action, around various organizing principles of DRR and adaptation, such as impact, and thus address issues more holistically. At the same time, it may well be worthwhile to consider further broadening this paradigm, to also include joining these efforts with mitigation efforts and other efforts in sustainability generally. Sustainability would be the universal goal and therefore the main organizing principle for development, for DRR, and for addressing climate change vis a vi adaptation and mitigation. In a real life situation, in a typical development planning department of a national planning agency or equivalent, programmes, projects and other interventions are planned around a board room table. If during these discussions and planning sessions, DRR efforts can also address mitigation efforts at the same time, then that option should be considered a more efficient way to address both DRR, and climate change and its impacts, in their entirety. For example, encouraging mangroves and coral and reef health and prosperity, also helps with climate change mitigation in terms carbon sequestration, offsetting ocean acidification, general biotic diversity and resilience, as well as providing a barrier and cushioning effect for the coastal areas during windstorms. Livelihoods too are assisted with these efforts of coastal feature restoration. The main point here is that while efforts are ongoing to broaden the reach and interaction between DRR and adaptation communities, any models or methods for this bridging can be used to further broaden and deepen the networking and interaction towards truly holistic and integral planning, which will be demanded by future scenerios. (Sanahuja , Haris Eduardo , Senior Consultant)	Briefly incorporated GHG mitigation into discussions on CCA, DRR and development. Sectoral discussion. diagram and table 6.3.1 includes a column for win-win solutions that include GHG mitigation synergies with CCA, DRR and development goals.
164	6	10	3	10	5	You have not made the case of why this is important. (IPCC WGII TSU)	Added text.
165	6	10	8	10	12	Unvoluntary irony. I would say that the conclusion of the paragraph do not need many studies to be drawn. I would rephrase: " the steps to mainsteam climate change into ... (Bosello, Francesco, Fondazione Eni Enrico Mattei, Milan University \)	Rewrote specific text. Thanks.
166	6	10	14	0	0	the barriers need to be mentioned (Vordzorgbe, Seth, UNDP)	Added some text on barriers to mainstreaming.
167	6	10	21	0	23	it is not apparent how this line is related to line16-21 (Vordzorgbe, Seth, UNDP)	Reduced text and rephrased remaining.
168	6	10	23	10	23	Why with "disaster management"? There is a greater and growing diversity in this allocation. In El Salvador Natural Resources and Environment have the risk management unit and in Belize it is the Ministry of Tourism. In Cost Rica it is the Presidency as it is in various Carbbean islands. Some recognition of this growing diversity should be made as the very fact there is growing diversity means the problem is being looked at from many different angles nationwide (Lavell, Allan, Programme for the Social Study of Risk and Disaster (FLACSO))	Adjusted text.

#	Ch	From Page	From Line	To Page	To Line	Comment	Response
169	6	10	29	10	29	I would like to add: In addition to the institutional changes that are needed (see above), there is currently a large capacity deficit in how to incorporate CC information into DRM in the field. (Lim, Bo, United Nations Development Programme)	Expanded emphasis and added text on role of scientists and research in improved DRM & working with decision-makers and communities
170	6	10	29	10	29	How could it be otherwise that there will be uncertainties with projecting the future? The real question is the systems to manage the uncertainty. (IPCC WGII TSU)	Expanded text to reflect this point.
171	6	10	31	10	49	Many detailed and solid points were made about issues surrounding the availability of quality data. At the same time, it could be also noted that there are many other factors surrounding whether data is accepted or not that are controlled by political and economic influences, and have nothing at all to do with scientific rigor. (Sanahuja , Haris Eduardo , Senior Consultant)	Incorporated these other realities into revised text, including considerations for capacity, uncertainties, other priorities. Even when data is available, it may not be used if not relevant for decision-making
172	6	10	38	10	39	Models may not help; see suggestion of getting a contributing author to provide a more balanced and nuanced perspective. (IPCC WGII TSU)	Add as CAs: Rob Wilby, UK, bottom up vs. top down, more pragmatic, knowledge-based. Have incorporated materials from other authors, including Wilby et al to expand discussions beyond models.
173	6	10	47	10	49	Examples are needed. (IPCC WGII TSU)	Brief examples now included.
174	6	10	49	10	49	I would like to add: The Climate Investment Funds of the Pilot Programme for Climate Resilience has made progress on mainstreaming CCA into DRM in a few country proposals such as Tajkistan and Zambia. (Lim, Bo, United Nations Development Programme)	Added brief text and reference to Pilot Programme for Climate Resilience.
175	6	11	0	0	0	agree the continuum approach but needs more robust discussion – DM is event focused whereas CCA is process (O'Brien, Geoff, Northumbria University)	Expanded text to briefly include these points in section 6.3, respecting length limits.
176	6	11	3	0	14	this is repeating things covered elsewhere in the chapter and can be deleted. Similarly, line 16-20 is not saying anything relevant and can be deleted. (Vordzorgbe, Seth, UNDP)	Deleted text as much as possible without losing flow.
177	6	11	5	11	14	Most of this information is repeated elsewhere in the chapter; combine. (IPCC WGII TSU)	Deleted text as much as possible without losing context
178	6	11	14	11	14	I would like to add: One of the fundamental challenges to linking short term gains with long term development goals is that policy options are not obvious. The idea of no-regrets options often become synonymous with business as usual. (Lim, Bo, United Nations Development Programme)	Have reorganized continuum discussion in 6.3.1.1-6.3.1.3, added text up front on mainstreaming challenge being that of bridging "no regrets" with longer term and added more references.
179	6	11	16	11	20	Links need to be broadened beyond DRR and adaptation communities only. (Sanahuja , Haris Eduardo , Senior Consultant)	Reflected briefly in additional text on cross-sectoral, cross-scale and cross-governance linkages, considering word length limitations.
180	6	11	31	11	33	Examples are needed. (IPCC WGII TSU)	Brief examples included along with references to sector table 6.3.1, respecting word and length limitations.
181	6	11	35	0	0	It seems to me that the report recommends no regrets plan. If so you may emphasis it even in the summary of chap. 6 as well as chap.1 taking a very good example of case study 9.18 (morisugi, Hisayoshi, Nihon University)	In many circumstances, this is true. Inserted a diagram and additional text to describe vulnerability and no regrets approaches, etc as well as longer term impacts approaches. Practical literature backs importance of vulnerability approaches or "no regrets" actions as a starting point while investments are made in longer term impacts approaches.
182	6	11	35	11	35	Are climate proofing and no regrets synonyms? (IPCC WGII TSU)	Agree, in reality. Reorganized this section and added other terminology for clarity. Chapter 1 (section 1.4) has an excellent discussion on the unresolved debate on coping vs adaptation.
183	6	11	35	11	41	There should be an acknowledgement of prevention. (IPCC WGII TSU)	Sub-sections and new examples in 6.3.1.1 now emphasize importance of prevention while 6.3.1.2 adds additional text on practical and tiered options for prevention, based on national capacity. The importance of prevention is further emphasize in the cross-sectoral examples in 6.3.1.3.

#	Ch	From Page	From Line	To Page	To Line	Comment	Response
184	6	11	40	11	40	This idea of "triple win" is extremely important and it could be highlighted with some real life examples in a special text box as this is really one of the keys towards best practices. (Sanahuja , Haris Eduardo , Senior Consultant)	Added more text on importance of win-win solutions in 6.3.1.1 and 6.3.1.3 and through special "win-win" column in Table 6.3.1.3. Have not added a special text box beyond brief mention of examples and Table 6.3.1.3. Could also refer to other text boxes for illustrative purposes.
185	6	11	46	0	0	46 onwards: talking about Section 9 in Section 6 is incongruous. The presentation can instead be linked to examples from Table 6.1 to make it relevant. (Vordzorgbe, Seth, UNDP)	Reduced references to Chapter 9 case studies and focussed instead on selected references to Table 6.3.1.3.
186	6	11	46	11	38	This cross referencing to the chapter 9 case studies does not happen in chapter 4 or 5 for example, or chapter 2 . A decision should be made on this as clearly doing it offers great advantages but at the same time if only one chapter does it it seems to be an anomaly. The other option is of course that chapter 9 case studies refer back to chapter 1 to 8 contents as they should given they supposedly illustrate with case studies aspects dealt with in the thematic chapters. One way or another some decision should be taken on this (Lavell, Allan, Programme for the Social Study of Risk and Disaster (FLACSO))	See response above. Reduced references to Chapter 9 case studies and focussed on examples from Table 6.3.1.3. Where opportunities allowed, made references to other Chapters as well.
187	6	11	54	12	1	"...case study...proves conclusively..." -- evidence is information that helps form a conclusion; proof is factual information that verifies a conclusion. Rephrase needed. Consider "...case study...demonstrates..." . (Stocker, Thomas, IPCC WGI TSU)	Done - text revised as per suggestion.
188	6	12	27	12	27	I would like to add: A few countries have capitalised these missed opportunities such as Bhutan which has successfully linked CCA to DRM in realtion to glacial outbursts. (Lim, Bo, United Nations Development Programme)	Chapter 9 case study should illustrate this point. To address previous comments on use of Chapter 9 case studies (in Chapter 6), have reduced the references to the Chapter 9 case studies and instead, focussed on examples from Table 6.3.1.3
189	6	12	41	12	41	Maybe wise to qualify what type of use of the word strategy is implied as strategy can and does mean many things--operational strategy, implementation strategy, institutional strategy, etc (Lavell, Allan, Programme for the Social Study of Risk and Disaster (FLACSO))	Agreed to keep this broad as the sub-headings of the title refer to what sort of strategies discussed
190	6	12	41	12	41	This subtitle would take the part of "Planning" as the second part of "management". (Yasseen, Adel, Ain Shams University - Institute of Environmental Research and Studies)	Chapter team carefully discussed ordering of the chapters, recognising that legislative structures and co-ordination structures tend to emerge after initial engagement with response and policy options.
191	6	12	43	13	2	This sub section 6.3.2 touches very briefly and only vaguely on issues of influence which are beyond the scope of the government itself, such as ties with industry and the private sector, who fund the government leaders election campaigns and support their terms in office in most countries. This is an extremely real and powerful issue, as is witnessed today with , for example, the immense power of the petroleum sector and its current influence in shaping a global response to climate change. This is why a true multi-stakeholder approach includes representatives from all sectors and stakeholder groups, and includes the media, to help avoid situations of industry groups having power over government. With various stakeholders, and media there are many eyes and voices around the table, providing more transparency. (Sanahuja , Haris Eduardo , Senior Consultant)	Chapter team agree with this assessment and have been trying to assemble relevant literature on this topic to be included in TOD. Some text modified to better address power in decision-making.
192	6	12	49	12	53	Don't need to include detailed description of what is coming. (IPCC WGII TSU)	Removed in response to comment
193	6	13	0	0	0	onwards:- Agreed that DM platforms are beginning to emerge but issues not addressed here are:- Risk management needs to have all of the actors in the risk chain close together but there is considerable evidence of distrust by the public of government – how should this be addressed? DM platforms are often narrowly focused and often and almost always not linked to climate change – they often sit in different parts of government – how should this be addressed? See table below Source: 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 Current DM is characterised by the left hand column whereas a new approach in thinking about CCA is needed as shown by column headed New Characteristic. Traditional DM is quite an insular function whereas CCA needs to be opened out – lots to learn from DRR – Fussell also comments on the difference in approach between DRR and CCA – however what is clear is that there is a need for institutional learning – that is not how do we do things better (single loop) but how do we do things differently (double loop). Risk management for DM often will not have the skills or tools for assessing climate risk – see UK Community Risk Registers in UK. Where expert information is provided to the planning function eg UK EA on floods and likely inundation, the planning function is often driven by economic pressure eg housing development in the Thames estuary – granted some measures have been introduced but it is clear that economic concerns are the priority. How are the DM and CC communities going to address such structural and political problems? (O'Brien, Geoff, Northumbria University)	Excellent points here. The section focuses on the DRR dimensions of DRM, leaving the focus of 6.3.3.4 on managing the impacts to pick up specific relating to emergency management systems. The deicated approach to institutional learning and the intersection of DRR and adaptation in this regard is picked up in much more detail at the end of chapter 8 which tends to focus on casting our eyes forward to look at bringing such communities and organisational measures closer together.

#	Ch	From Page	From Line	To Page	To Line	Comment	Response
194	6	13	5	14	37	When discussing legislation some mention should be made of recent attempts to transcend government policy and simple legal dictates and transfer DRM to constitutional status such as in Ecuador where a chapter of the new national constitution is dedicated to DRM--this is not common but a necessary development in the future--laws are one thing, Constitutions are another and far more powerful because they are backed by Constitutional Courts AND FUNDAMENTAL HUMAN RIGHTS NOTIONS. (Lavell, Allan, Programme for the Social Study of Risk and Disaster (FLACSO))	This is a good point. Have tried to identify literature on this case and will continue to do so for inclusion in the TOD.
195	6	13	9	0	0	This is much too late to start mentioning the Hyogo Framework for Action (HFA), and even here there is no sense of how national strategies and policies are guided by and supported by the web of interactions with international and regional intergovernmental processes, including UN General Assembly resolutions, regional interministerial agreements. In some countries the national strategy is largely based on the Hyogo Framework, and has been developed in close consultation with the UNISDR and other UN entities such as UNDP. The UN development assistance framework process now includes specific guidance of disaster risk reduction. Other supporting documents include the UNISDR publication "Words into Action" which sets out structured guidance for first steps on implementing the Hyogo Framework for Action. These are documented tools that must be referred to. Please note that their importance lies in how they bolster and guide national action, not that they are of international origin, so they have to be dealt with in this chapter irrespective of where else in the report they may be discussed. UNISDR needs to be consulted on the types of documents that are available and suitable for the IPCC review. (Basher, Reid, Secretariat of the High-Level Taskforce on the Global Framework for Climate Services)	Strong appreciation is given to the role of the HFA in shaping national processes is given in 6.3.2.2.
196	6	13	21	0	38	could benefit from some enrichment from UNISDR and World Bank 2008 Status of DRR in Sub-Saharan Africa. (Vordzorgbe, Seth, UNDP)	Thank you, reference now included
197	6	13	34	13	36	What about the importance of monitoring and evaluation? (IPCC WGII TSU)	M&E now picked up in later section.
198	6	13	42	13	42	Maybe interesting to caveat this case with the 1989 creation of the Colombian system--the first in the world, where the factors mentioned here were also present--political will, circumstances of Nevado de Ruiz, support from various levels etc etc. And today the system is a shadow of what it was then according to many. Political vulnerability? New development goals and processes that work against systems and their objectives. The triumphalism of good examples must be weighed by the stark realities of political and economic convenience in not supporting DRM. (Lavell, Allan, Programme for the Social Study of Risk and Disaster (FLACSO))	To be further addressed when addressing SOD comments
199	6	13	47	13	47	Please present evidence and references to support this general statement that the process was successful. (Stocker, Thomas, IPCC WGI TSU)	To be further addressed when addressing SOD comments
200	6	14	15	14	27	Here is one place there could be discussion of national emergency response committees. (IPCC WGII TSU)	Now discussed in 6.3.3.4
201	6	14	15	14	37	Issues surrounding the implementation of legislation, policies and plans is of such critical importance to overall DRR success and sustainability that this topic would merit a more comprehensive discussion and analysis. (Sanahuja , Haris Eduardo , Senior Consultant)	To be further addressed when addressing SOD comments
202	6	14	31	14	33	The notion of the weak political power of "risk management actors" needs to be caveated. What is a risk management actor? The problem is that they have been seen to be supporters and actors of response. But in a better scheme they would be the heads of development sectoral agencies and territorial development agencies. Maybe wise to make this caveat--that the current actors are not the actors we need in good part and progress will depend on more influential actors taking up the theme in development agencies and institutions. (Lavell, Allan, Programme for the Social Study of Risk and Disaster (FLACSO))	To be further addressed when addressing SOD comments
203	6	14	48	14	53	This information is detailed in Chapter 1; please refer to that text and delete. (IPCC WGII TSU)	To be further addressed when addressing SOD comments
204	6	14	53	15	2	Despite this fact there is a great deal of disillusionment with the platforms expressed by many sectors. (Lavell, Allan, Programme for the Social Study of Risk and Disaster (FLACSO))	To be further addressed when addressing SOD comments

#	Ch	From Page	From Line	To Page	To Line	Comment	Response
205	6	14	53	15	2	This next statement is not accurate "...With no formal evaluation of National Platform, there is little evidence to suggest whether or not such multi-sectoral co-ordination mechanisms lead to more effective disaster risk management..." From the outset of the design and implementation of the National Platform concept within the UNISDR system and partners, there has been ongoing internal and external evaluations of the National Platforms mechanisms, with varying degrees of formality. It need also be reiterated and noted with significance, that the team who designed the National Platform Guidelines, based the model from the National Conservation Strategy (NCS) model, developed by IUCN over a forty year period with many national partners, and gaining headway for interdisciplinary, and multi-stakeholder sustainable development action worldwide for the last three decades, all of which is well documented. The first session of the Global Platform for DRR convened in June 2007 in Geneva, had as one of its main aims, to review efforts of national platforms and make adjustments. Please see "Acting with Common Purpose, UN/ISDR, June 2007." Since then, there have been numerous events in all regions that have set the Regional Platforms, and numerous national level events also, which have had the ongoing evaluation of the national platforms as a main agenda item. In 2008 the UNISDR published "Towards National Resilience: Good Practices of National Platforms for DRR." More recently, I personally conducted a formal and indepth evaluation of National Platforms processes in the LAC region commissioned by IFRC and UNISDR Americas ("National Platforms for Disaster Risk Reduction in the Americas: a Critical Analysis five years from the adoption of the HFA"). The study provides a reality check of the national platforms process in LAC region, including a section profiling four cases (Colombia; Costa Rica; Guatemala; Peru and Dominican Republic). You may wish to connect with the secretariat of UNISDR to set this information straight. (Sanahuja , Haris Eduardo , Senior Consultant)	text rewritten
206	6	15	0	0	0	what about poor local government or local government that is not given sufficient resources – there is often tension between local and central government in unitary states (O'Brien, Geoff, Northumbria University)	expand on devolution of power and finances; to be addressed with SOD comments
207	6	15	1	15	2	It is hard to imagine that coordination would leave to worse outcomes than present. (IPCC WGII TSU)	point noted, thanks
208	6	15	20	16	41	This section needs to be reorganized, pulling together relevant discussions. The paragraphs are now an uncomfortable mix of top-down vs bottom-up. This could be made more coherent, better outlining that both are needed. Examples are critically needed of where the linkages across scales have been effective, and of the difficulties and barriers encountered. (IPCC WGII TSU)	expand ; to be addressed with SOD comments
209	6	15	32	15	32	This statement needs to be more consistent. In parts of the text, you advocate for national decision making and then say that sub national/local actions are not scaleable. This contradiction has to be clarified. (Lim, Bo, United Nations Development Programme)	expand ; to be addressed with SOD comments
210	6	15	40	15	40	This sentence is repeated several times in this section. Once is enough. (IPCC WGII TSU)	expand ; to be addressed with SOD comments
211	6	16	1	16	15	The two references to the involvement of the private sector need to go beyond solely the provision of resource and tools to encompass the idea of the private sector as much greater including the idea of Corporate Social Responsibility. (Sanahuja , Haris Eduardo , Senior Consultant)	expand ; to be addressed with SOD comments
212	6	16	27	16	27	Scaling up is a critical issue and should be explored, not just mentioned in one sentence. (IPCC WGII TSU)	expand ; to be addressed with SOD comments
213	6	16	27	16	41	You might consider having this text as part of a separate section exploring linkages across scales and across responsibilities (i.e. water, agriculture, health). (IPCC WGII TSU)	agree, to covered in the crosssectoral section, check 6.3.1.3
214	6	16	31	16	31	Please add the year for all of these Hurricanes. (Stocker, Thomas, IPCC WGI TSU)	yes, agree
215	6	16	41	16	41	There could be one more paragraph added to this sub section and that could focus on the emerging recognition of the importance of cities as the key level of governance for changes regarding sustainability and climate change. (Sanahuja , Haris Eduardo , Senior Consultant)	yes, agree, local issue, link national-city to be discussed, but then to be transferred to chapter 5?
216	6	18	1	18	26	This is an excellent example, showing process and outcome issues. The chapter would benefit from more of these. (IPCC WGII TSU)	thank you
217	6	18	33	18	33	The subtitle stays as it is the third party in the management process. (Yasseen, Adel, Ain Shams University - Institute of Environmental Research and Studies)	N/A
218	6	18	35	0	0	plse, delete "a set of good, and not so good". Who decides what is good and what is not so good? (Koppe, Christina, Deutscher Wetterdienst)	Done
219	6	18	35	18	35	Please present an evaluation of which practices are good and not so good or delete these qualifiers. (Stocker, Thomas, IPCC WGI TSU)	Done
220	6	18	44	18	45	Regarding Building a culture of safety. This sub section is only one sentence and could be expanded. (Sanahuja , Haris Eduardo , Senior Consultant)	It could be expanded but provides a chapeau to the sub-sections below.
221	6	18	50	18	50	Given the ISDR in GAR 2009 refers to drivers in another sense, may it not be better to just refer to risk factors or components here and not to risk drivers? (Lavell, Allan, Programme for the Social Study of Risk and Disaster (FLACSO))	To clarify, and address when considering SOD comments

#	Ch	From Page	From Line	To Page	To Line	Comment	Response
222	6	18	50	20	39	The issue of information and risk analysis is a critical starting point for all options of intervention and has been dealt with at different levels in chapters 1, 2, 4, 5 and now 6. Maybe best to come to some agreement that there is one overall dealing with of this topic and that each chapter then only goes into detail as to the particular aspects that are relevant at the national, local, subnational levels etc. At present it seems there is a good deal of repetition and not enough specificity as to the spatial scales being dealt with. As all risk info has finally to be down scaled to the local level there is a problem in determining what is local and national level information. While considering the excellent info put out in this section we must also recognise that it is far from comprehensive on attempts to dimension risk nationally. The early OAS work in Latin America and now the recent World Bank financed CAPRA work can not be passed over without comment and synthesis. (Lavell, Allan, Programme for the Social Study of Risk and Disaster (FLACSO))	This has been a feature of the redrafting and cross-chapter discussions. Hopefully improved, but will continue to be a feature of the discussions, refinement and SPM process.
223	6	18	53	19	1	An "is" is lacking in the sentence (Lavell, Allan, Programme for the Social Study of Risk and Disaster (FLACSO))	deleted in the process of streamlining this section
224	6	19	0	20	0	yes EWS can be very good but maintaining public preparedness is a real challenge (O'Brien, Geoff, Northumbria University)	ok
225	6	19	12	19	19	This would benefit from a discussion of how to incorporate adaptation into probabilistic projections. (IPCC WGII TSU)	Agree, have expand on EWS and harmonised with 6.3.3.1.2
226	6	19	30	19	30	How is progress defined? What has been learned from the progress made? (IPCC WGII TSU)	The focus was more on risk management and climate variability, and this has been deleted as bit redundant given ch.1 discussions
227	6	20	5	20	17	This information is detailed in Chps 3 and 4. Refer readers to those chapters and delete. (IPCC WGII TSU)	Now stronger focus on added value from Chapter 6
228	6	20	7	20	10	Statements regarding climate change and changes in magnitude and/or frequency of extreme events need to include the necessary specificity and qualifiers as provided in Chapter 3. Chapter 3 of SREX should also be cited here. Also please note: individual chapters of IPCC reports should be cited, rather than the whole report. (Stocker, Thomas, IPCC WGI TSU)	To clarify with Chapter 3 output; and address when considering SOD commetns
229	6	20	8	20	10	Some rewording should be used here and the reader should be directed to the most up to date assessment of projection uncertainty, ie, chap 3. Suggest something like: "Uncertainty in modelling climate extremes has been assessed, and models face challenges when reproducing spatially explicit climate extremes due to limited data and low (coarse) spatial resolution (Goodness 2003, see also Chanter 3 SREX)." (Stocker, Thomas, IPCC WGI TSU)	deleted in the process of streamlining this section
230	6	20	11	20	11	Please change "are highly uncertain" to "are associated with variable levels of uncertainty" - this rewording better reflects the key message from chapter 3 that uncertainty is very different for different climate extremes, seasons, and regions. (Stocker, Thomas, IPCC WGI TSU)	deleted in the process of streamlining this section
231	6	20	13	20	14	This sentence concerning the understanding of drought is much too general, and doesn't at all reflect the assessment given by chapter 3 in relation to drought. You must support this statement with some cited references if this sentence is to remain. You also need to add "in some regions" to this sentence, because understanding of drought, and confidence in future projections of drought is very region-specific. In some regions, severity and duration of drought are very well understood and projected. (Stocker, Thomas, IPCC WGI TSU)	deleted in the process of streamlining this section
232	6	20	18	20	24	I would think a significant failure would be loss of life and property, not just loss of trust. (IPCC WGII TSU)	deleted in the process of streamlining this section
233	6	20	36	20	36	The problem is more lack of standardized indicators than standard definitions. (IPCC WGII TSU)	deleted in the process of streamlining this section
234	6	20	42	21	52	As warning systems are dealt with in chapter 5 on local level things the question always comes up as to whether such systems should be dealt with as local or national DRM. This then leads to the question as to what really is specifically national about early warning systems as opposed to local--this also includes monitoring aspects. Given that various chapters deal with early warning it seems necessary to delimit what each should cover and what is a common analysis relevant to all. (Lavell, Allan, Programme for the Social Study of Risk and Disaster (FLACSO))	ok, discussed now
235	6	20	48	20	48	You should also refer to chapter 9, section 9.19 here - EWS case study. (Stocker, Thomas, IPCC WGI TSU)	To clarify
236	6	20	48	20	50	Response strategies also should be highlighted. There have been a number of serious failures of early warning systems, such as of the FEWS. These need to be discussed, with lessons learned drawn from the experiences. (IPCC WGII TSU)	Failures of EWS, reasons and lessons learned briefly discussed in text, respecting length limitations for section. Added new paragraph on importance of communications.
237	6	21	4	21	5	An effective early warning system needs more than timely delivery of accurate information. Please provide a more comprehensive assessment. (IPCC WGII TSU)	Good point. Added a new paragraph on importance of interaction between scientists and information developers and users and decision-makers.
238	6	21	16	21	17	Add media to emergency responders and public as recipients of scientific information (Porfiriev, Boris, Institute for Economic Forecasting, Russian Academy of Sciences)	Added reference to media.
239	6	21	18	0	0	Insert 'and interpret in plain (colloquial) terms' after 'identify' (Porfiriev, Boris, Institute for Economic Forecasting, Russian Academy of Sciences)	Text revised

#	Ch	From Page	From Line	To Page	To Line	Comment	Response
240	6	21	24	21	28	There needs to be references to more than WMO and ISDR. For example, WHO has been very actively involved in developing health protection systems. As noted several times, there needs to be an assessment of the effectiveness of these systems, not just a list. (IPCC WGII TSU)	Text revised.
241	6	21	26	21	26	Delete "deadly" -- fatality qualifier not needed for heat waves to be considered in this context (Stocker, Thomas, IPCC WGI TSU)	Text revised.
242	6	21	45	0	0	Delete the excessive 'o' in 'coordination' (Porfiriev, Boris, Institute for Economic Forecasting, Russian Academy of Sciences)	Revision made.
243	6	21	48	21	48	Telling governments what they need to do is policy-prescriptive; rephrase to be policy-neutral (Stocker, Thomas, IPCC WGI TSU)	Rephrased.
244	6	21	48	21	50	How can these interactions occur in an efficient and productive manner? (IPCC WGII TSU)	Added brief text on supporting roles of national governments coordination, policies and supporting frameworks, multi-hazards and multi-stakeholder approaches, community EWS, interactions with other levels of government, responses for most vulnerable populations, etc. Other text in sub-section on monitoring, hydrometeorological prediction and warning services, finance, etc.
245	6	21	52	21	52	Added to this subsection regarding public education, could be added communications strategies as to how to make the public aware of the upcoming impacts of climate change in a way they can relate to. (Sanahuja , Haris Eduardo , Senior Consultant)	Added a paragraph on climate change communications approaches, importance of interactions between information developers and decision-makers.
246	6	22	1	22	7	There is a lot of confusion and overlapping DRM and CCA actions. It is useful to think about the continuum and timescales of these complementary actions. Figure provided separately. (Lim, Bo, United Nations Development Programme)	Agree. This is important, discussed in sections 6.3.1.1-6.3.1.3 and a new diagram added to illustrate this point.
247	6	22	1	22	7	Here it should be noted that EbA and hard strategies are ineffective in isolation - they must be integrated. This point was made earlier in 5.12.41-45. (Wright, Richard, American Society of Civil Engineers)	Strengthened this messaging somewhat in the text and repeated messaging in section 6.3.3.2.3. Focus here was on technological and infrastructure-based approaches. Perhaps more needs to be added to emphasize this point?
248	6	22	12	23	45	Again with this section, what is really national and what is subnational or local? These topics are dealt with as well in other chapters. Thus when chapter 5 defines local as including all sub provincial or departmental aspects, including cities and river basins, communities and economic regions and when we realise that these levels also promote dykes and land use planning, terracing and environmental management etc it becomes very difficult to say what is national and what is subnational or local. But if we are to avoid duplication and be precise we really do have to define the limits of national and subnational and local. Thus, for instance, national building code regulations are clearly national as are national legislation and national disaster risk systems. But constructing dykes and terraces, reforestation and using land use planning at city level are not national although they may be promoted with finance and administration from the national level. This problem of what begins where and what ends where is present throughout this SREX-FOD and has to be dealt with as soon as possible to avoid repetition and confusion for external readers. National must refer to things collectively promoted and relevant to the whole national territory, where administration and finance are national even if operations and work are sub national or local. Or is there another way of defining what is national? (Lavell, Allan, Programme for the Social Study of Risk and Disaster (FLACSO))	expand on national systems approach, functions, lessons learned, emphasizing importance of national level for local level decisions, diversity
249	6	22	20	22	18	There should be some reference to informal settlements and the challenges associated with them. (IPCC WGII TSU)	Added brief text within context of national level. More an issue for local govs and ch. 5
250	6	23	45	23	45	The issue of geo-engineering needs to be addressed at some point in this report, I would imagine, and perhaps this section on technological approaches could provide a good entry point. (Sanahuja , Haris Eduardo , Senior Consultant)	For consideration - IPCC special meeting on this topic in 2011. Considered a marginal point by chapter team.
251	6	24	6	24	9	Delete "or", write "(LULUCF)" and "(REDD)". (Rock, Joachim, Johann Heinrich von Thuenen-Institute)	Text rewritten
252	6	24	15	24	15	Maldives, not Maldives? (Rock, Joachim, Johann Heinrich von Thuenen-Institute)	Text rewritten
253	6	24	23	24	25	One "Si Lanka" is enough in this sentence. (Rock, Joachim, Johann Heinrich von Thuenen-Institute)	Text rewritten
254	6	24	28	24	42	Should this be here or in the section on information? (Lavell, Allan, Programme for the Social Study of Risk and Disaster (FLACSO))	Text now makes reference to section 3.2.3 on modelling, to section 6.3.3.1.1 on general information needs and in reference to data needs in sections 6.3.1.1-6.3.1.3. Some discussion remains on "tailored" Information needs in light of another review comment (# 257).

#	Ch	From Page	From Line	To Page	To Line	Comment	Response
255	6	24	31	24	31	Did you define REDD+ somewhere? (Rock, Joachim, Johann Heinrich von Thuenen-Institute)	Yes
256	6	24	31	24	36	Issues missing include (1) limited access by farmers and others to forecasts in a timely manner; and (2) the degree to which <b>downscaled projections can tell decision makers about vulnerability.</b> (IPCC WGII TSU)	Text revised as per suggestion.
257	6	24	32	24	32	Gap analysis on use of climate information in Africa- not sure reference is correct- another example which took a comprehensive look at the gaps in integrating climate information into development is: Hansen, J.W., Hellmuth, M., Thomson, M., Williams, J. (Editors), 2006. A Gap Analysis for the Implementation of the Global Climate Observing System Programme in Africa. IRI Technical Report No. 06 01. International Research Institute for Climate and Society, Palisades, New York. 49 pp. (Hellmuth, Molly, International Research Institute for Climate and Society)	Added paragraph mainly making reference to African examples. Also made good use of your reference - thanks.
258	6	24	34	24	34	Check for consistency with what Chapter 3 of SREX has to say about downscaling (Stocker, Thomas, IPCC WGI TSU)	Clarified statement on "limited capacity" i.e. refers to the limited skillsets or human resources rather than the broader <b>scientific capability, as per Chapter 3.</b>
259	6	24	35	24	35	You should also cite Chapter 3, section 3.2.3 - where downscaling is discussed. (Stocker, Thomas, IPCC WGI TSU)	Cited Ch 3 sections.
260	6	24	38	24	42	What have been the strengths and weaknesses of NAPAs? See publications by Huq and others. (IPCC WGII TSU)	Added paragraph and checked Huq and other references. <b>Text also makes reference to Chapter 7.</b>
261	6	24	42	24	42	It may be very worthwhile to include in this subsection, a paragraph on the Sustainable Livelihoods Framework and its holistic pentagon of assets. This would also tie in well with the subsequent sub section. (Sanahuja , Haris Eduardo , Senior Consultant)	Incorporated Sustainable Livelihoods Framework - tricky to find good references. Also included cross-chapter references to sustainable livelihoods, as mentioned in chapters 2, 5 and 8.
262	6	25	31	25	31	Please define REDD+; I assume sources should be resources (IPCC WGII TSU)	Spelled out
263	6	25	50	25	51	This is a very limited reflection of the literature base. (IPCC WGII TSU)	Expanded
264	6	26	4	26	17	This section doesn't have the discussion of successes advertised in the heading. The list of examples needs to be expanded to give an indication of why they were considered successes (I assume that is why they were chosen), the metrics to measure success, how they <b>may fare in a changed climate. etc..</b> (IPCC WGII TSU)	Expanded
265	6	26	21	0	0	The term "EbA" is defined 14 pages earlier. Better to spell it out. (Basher, Reid, Secretariat of the High-Level Taskforce on the Global Framework for Climate Services)	Addressed.
266	6	26	27	26	27	One other point which could be added here would be ...Lack of recognition of the socio-economic and ecological consequences of maintaining a business as usual path and not taking action.... (Sanahuja , Haris Eduardo , Senior Consultant)	Expanded
267	6	26	31	26	37	Are there any success stories? (IPCC WGII TSU)	New add success stories of EbA
268	6	26	43	26	43	You might consider adding a bullet on linking scales. (IPCC WGII TSU)	Expanded
269	6	26	45	28	15	This section should undoubtedly be considered in this chapter. But similar topics are also dealt with in other chapters with considerable overlap or complementarity. This would seem to be another case where a decision is required as to where the risk transfer and sharing thing should go once and for all, without duplication. This is even more important because there is also a case study realting to these topics that also repeats things in the different chapters. (Lavell, Allan, Programme for the Social Study of Risk and Disaster (FIACSO))	Now addressed in a more coherent way across chapters.
270	6	26	45	28	15	This section is informative however slanted somewhat for developed countries. More information about what poor countries ie Pakistan, are able to do re transference and sharing of residual risk, in extreme cases could be noted, with real life examples <b>reflecting the main points.</b> (Sanahuja , Haris Eduardo , Senior Consultant)	Will consider addressing depending on available literature as we move towards completion.
271	6	27	6	27	7	The paragraph should be extended to assess the conclusions of more recent reports that focus more actively on the risk transfer / risk reduction / climate change interface, in particular the MCII report published by UNISDR (Adaptation to Climate Change: Linking Disaster Risk Reduction and Insurance), and the report released by the International Fund for Agricultural Development (IFAD) and the World Food Programme (WFP) in May 2010 on "The potential for scale and sustainability in weather index insurance for agriculture and rural livelihoods." (Basher, Reid, Secretariat of the High-Level Taskforce on the Global Framework for Climate Services)	references added here and in other passages
272	6	27	11	27	11	Telling governments what they need to do is policy-prescriptive; rephrase to be policy-neutral (Stocker, Thomas, IPCC WGI TSU)	rephrased: "from governments may need" to "may want to consider creating enabling environments for the private sector to become more engaged or offer insurance themselves".
273	6	27	30	0	0	this sentence is unclear (Surminski, Swenja , Association of British Insurers)	rephrased: Even where insurance markets do exist, <b>penetration is often much less than 100%</b>
274	6	27	31	27	31	If the Netherlands does not have insurance, then what happens during a flood? (IPCC WGII TSU)	government relief is provided and mentioned now
275	6	27	43	27	48	This information is repeated elsewhere in the chapter. (IPCC WGII TSU)	Deleted most of this and referred to section 6.3.2.3
276	6	28	2	28	5	This information is repeated elsewhere in the chapter. (IPCC WGII TSU)	Deleted most of this and referred to section 6.3.2.3

#	Ch	From Page	From Line	To Page	To Line	Comment	Response
277	6	28	18	0	0	There is no discussion of recovery as an entry point to DRM in post-disaster risk reduction. The discussion needs to show what is needed to manage the impacts (as in Priority 5 of the Hyogo Framework for Action) in a risk-responsive manner to reduce prospective risks. (Vordzorgbe, Seth, UNDP)	6.3.3.4 has been re-written while taking reference to this comment
278	6	28	18	29	16	It seems odd to only highlight IFRC alone in this sub section. No other entities outside the UN are mentioned in this subsection. This may not be politically astute. (Sanahuja, Haris Eduardo, Senior Consultant)	6.3.3.4 has been re-written while taking reference to this comment
279	6	28	18	29	16	This section doesn't really cover managing impacts (IPCC WGII TSU)	6.3.3.4 has been re-written while taking reference to this comment
280	6	28	26	28	40	This information is detailed in Chp 4. Please refer to that chapter and delete text and table. (IPCC WGII TSU)	6.3.3.4 has been re-written while taking reference to this comment
281	6	28	32	28	35	This is a very sweeping statement to base on one non-journal source. Provide more evidence and references to support this. If you can only cite one article here, and these figures are likely to be debated, you should at least reword "some estimations" to "one study has estimated....". (Stocker, Thomas, IPCC WGI TSU)	6.3.3.4 has been re-written while taking reference to this comment
282	6	28	45	28	50	Examples of each of these would be most helpful. (IPCC WGII TSU)	6.3.3.4 has been re-written while taking reference to this comment
283	6	29	1	29	4	This information is repeated elsewhere in the chapter. (IPCC WGII TSU)	6.3.3.4 has been re-written while taking reference to this comment
284	6	29	6	29	9	Examples of each of these would be most helpful. (IPCC WGII TSU)	6.3.3.4 has been re-written while taking reference to this comment
285	6	29	12	29	16	This information is repeated elsewhere in the chapter. (IPCC WGII TSU)	6.3.3.4 has been re-written while taking reference to this comment
286	6	29	24	29	26	Statements regarding climate change and any potential change in magnitude and/or frequency of extreme events must be consistent with Chapter 3; rephrase to include necessary specificity and qualifiers as provided in Chapter 3. (Stocker, Thomas, IPCC WGI TSU)	Now aligned with chapter 3
287	6	29	25	29	25	"...helping to create more extreme impacts..." -- what is meant by "helping to create"? Suggest rephrase to "resulting in". (Stocker, Thomas, IPCC WGI TSU)	Removed reference
288	6	29	27	29	27	"national systems must" is tending to be policy-prescriptive; rephrase to be policy-neutral (Stocker, Thomas, IPCC WGI TSU)	Rephrased to increase policy-neutrality.
289	6	29	32	29	32	I would add: e.g., hybrid organisations, multisectoral task teams (Lim, Bo, United Nations Development Programme)	Added
290	6	29	47	0	0	"damage costs" is preferably rephrased by "economic loss from disasters", since the concept of opportunity cost has been emphasized in the rest of this chapter. (Kondo, Masahide, University of Tsukuba)	done
291	6	29	53	30	1	See comment above to the p. 4, line 55 - p. 5, line 1 (Porfiriev, Boris, Institute for Economic Forecasting, Russian Academy of Sciences)	could not find this comment, I think the suggestion is to delete risk in disaster risk management to make it broader, which is done and makes sense.
292	6	30	4	30	9	What are some of the results? (IPCC WGII TSU)	Statement added: "net benefits over a number of key options are generally reported", but I think we need more detail here.
293	6	30	11	30	25	I would add: and better estimates on return on investments are crucial as incentives and drivers for behavioural change. (Lim, Bo, United Nations Development Programme)	ok, added now: "given that better estimates of returns on investments can be crucial drivers for behavioral change on several governance levels including national levels."
294	6	30	12	30	13	There needs to be mention of the challenges of estimating non-market impacts, and that these can be larger than market impacts. Also, what are the positive and less-than-positive aspects of using CBA? (IPCC WGII TSU)	Intangibles are mentioned now, but discussing the pros and cons of cost benefit analysis seems beyond the scope of this report. I put a reference to Gowdy, 2007.
295	6	30	26	30	45	This chapter needs a comprehensive assessment of early warning systems (see earlier comment for whole chapter). (IPCC WGII TSU)	Early warning system is included in section 6.3.3.1.2
296	6	30	28	31	35	This information is extremely important and new type may of the readers. I think it should be highlighted and examples could make it come more alive. More attention need to be given to this topic of Managing Uncertainties and Adaptive Management in National Systems, as it is important now and going to get more important in future years. (Sanahuja, Haris Eduardo, Senior Consultant)	Example of the Cayman Island has been included
297	6	30	33	30	35	Rephrase and cross-reference with Chapter 3 to maintain consistency (Stocker, Thomas, IPCC WGI TSU)	CLA consult
298	6	30	47	0	0	Reference work of Holling re adaptive mgt e.g., Holling (1978). Adaptive environmental assessment and management. (Glavovic, Bruce, Massey University)	Reference has been included
299	6	31	8	31	10	Examples are needed. (IPCC WGII TSU)	Example has been included

#	Ch	From Page	From Line	To Page	To Line	Comment	Response
300	6	31	19	31	20	"...systems to address surprises." -- unclear what is meant by the use of "surprises". Do you mean uncertainties/limitations associated with predictability? Or the sudden onset of certain extreme events? Please clarify. (Stocker, Thomas, IPCC WGI TSU)	Surprise refers to external shocks as a hazard
301	6	31	19	31	23	Examples are needed. (IPCC WGII TSU)	Example has been included
302	6	31	20	31	23	Constrain examples to those extreme events that have a potential climate change signal. Earthquakes do not. (Stocker, Thomas, IPCC WGI TSU)	Example has been included
303	6	31	29	21	35	Lack of clarity re the meaning of resilience needs to be addressed - as is constructively done elsewhere in the work, incl chs 1 and 2. (Glavovic, Bruce, Massey University)	Now reference given to the SREX glossary
304	6	31	29	31	35	Please bear in mind that management is local, policy is region- or nationwide. Adaptive management of one resource in Area X may be completely different from what needs to be done in Area Y. Therefore, resilience and indicators need to be viewed in context to the local conditions. Implementing a "one size fits everybody"-policy solution can easily worsen the situation. (Rock, Joachim, Johann Heinrich von Thuenen-Institute)	Now clarified
305	6	31	45	31	52	This information is detailed in Chp 2. Please refer to that chapter and delete. (IPCC WGII TSU)	This information is important to highlight to those policy makers likely to read chapter 6. The section has been reduced with stronger linkages made to other chapters to reduce duplication.
306	6	31	47	31	49	The statement that the two things share the goal of vulnerability reduction is not really provable as things go today given that there are so few examples to choose from and many don't even touch the vulnerability goal. Maybe if one said that they should take this as a major goal that would be more accurate. Vulnerability reduction anyway can not be a goal of adaptation given it is adaptation that will take place once vulnerability is reduced-that is to say, vulnerability reduction through development instruments is a means to achieve adaptation not a goal as such. Vulnerability reduction is a development goal and a goal of development planning and poverty reduction. So really we should be saying that vulnerability reduction as with reduction of environmental degradation, improved livelihoods, better land use planning etc. will help promote risk reduction and adaptation. This is not the same thing as saying adaptation and DRR reduce vulnerability themselves. (Lavell, Allan, Programme for the Social Study of Risk and Disaster (FLACSO))	Language modified to fit this comment. Broadly agree
307	6	32	10	32	10	The Sustainable Livelihoods Framework with the capital assets pentagon is a widely accepted model that could be featured in a box here. (I also recommended it be added to page 24 line 42) (Sanahuja, Haris Eduardo, Senior Consultant)	Reference is given to chapter 5 where this approach is discussed in detail. Chapter team consider it less relevant as an organising principle at national scale.
308	6	32	35	32	37	Chapter 5 also covers this material. Please discuss with them where best to include this. (IPCC WGII TSU)	Reference now given to chapter 5 and shortened in this section.
309	6	32	36	32	37	Table 6.5 is identical to Table 5.4. Could one of these be removed? (Stocker, Thomas, IPCC WGI TSU)	Table deleted from chapter 6 and reference given to material in chapter 5.
310	6	32	42	33	16	Low carbon scale is important one. The question is "How much low?". I hope it will be referenced by a datum line which could be variable according to the prevailing environmental conditions. (Yasseen, Adel, Ain Shams University - Institute of Environmental Research and Studies)	Section is removed now, subject to reworking to create greater alignment with question of national disaster risk management systems and to fully appreciate the emerging literature in this area.
311	6	32	42	33	16	This needs to be carefully tied to managing the risks of extreme events and disasters. This material is unlikely to make it through the government review unless it is relevant and is policy neutral. (IPCC WGII TSU)	Section is removed now, subject to reworking to create greater alignment with question of national disaster risk management systems and to fully appreciate the emerging literature in this area.
312	6	33	13	33	16	There was a chapter on linking adaptation and mitigation in the AR4, and a significant number of publications since. The discussion, if included, should reflect current thinking in this area. (IPCC WGII TSU)	Section is removed now, subject to reworking to create greater alignment with question of national disaster risk management systems and to fully appreciate the emerging literature in this area.
313	6	33	19	33	19	Approaching DRR and climate change holistically demands models which are new. One such area of research and practice is integral theory (Wilber Beck et al). Integral theory should be featured in this report and this sub section would provide a good entry point. (Karen O'Brien can advise on this) (Sanahuja, Haris Eduardo, Senior Consultant)	Section is removed now, subject to reworking to create greater alignment with question of national disaster risk management systems and to fully appreciate the emerging literature in this area.
314	6	33	25	33	25	I would add: However, climate finance provides an opportunity to catalyze good DRM practices which should be done regardless of climate change. (Lim, Bo, United Nations Development Programme)	Section is removed now, subject to reworking to create greater alignment with question of national disaster risk management systems and to fully appreciate the emerging literature in this area.

#	Ch	From Page	From Line	To Page	To Line	Comment	Response
315	6	33	26	33	28	I don't agree with this general inference that extreme events are becoming more uncertain - Suggest rewording to something like: "....risk management systems to the possibility of more frequent and/or more intense extreme events, as well as by addressing ....." (Stocker, Thomas, IPCC WGI TSU)	Section is removed now, subject to reworking to create greater alignment with question of national disaster risk management systems and to fully appreciate the emerging literature in this area.
316	6	33	38	33	39	Why bring up risk perception in the conclusions, when they are not discussed in the chapter -- and they are a topic included in other chapters? (IPCC WGII TSU)	Section is removed now, subject to reworking to create greater alignment with question of national disaster risk management systems and to fully appreciate the emerging literature in this area.
317	6	33	43	33	43	I would add: There is a risk that low carbon climate resilient becomes another jargon that replaces the term sustainable development. This would serve only as a distraction to the real task of changing consumption patterns and the underlying economic paradigm on which they are based. (Lim, Bo, United Nations Development Programme)	Section is removed now, subject to reworking to create greater alignment with question of national disaster risk management systems and to fully appreciate the emerging literature in this area.
318	6	33	51	0	0	no comment (Yasseen, Adel, Ain Shams University - Institute of Environmental Research and Studies)	N/A
319	6	33	51	34	38	The report should make research a priority to relate hazards and environmental extremes to climate change. Adaptations will be costly; sound, rational bases are needed for design conditions. Consider the weaknesses of the relations of design conditions to climate expressed earlier in the report: 1.16.20-23, the relation between greenhouse gas emissions and the probabilities over space and time of particular types of events remains uncertain; 3.2.32-36, virtually certain that high temperature extremes have increased since the 1960-90 base; 3.2.42-46, very likely that the frequency of heavy precipitation will increase; 3.2.48-55, no assessment can be made of changes in strong winds; 3.3.48-50, likely that the frequency and areas of droughts has increased since 1970s; 3.5.40-47 says we need prediction tools for early warning and forecasting of extremes; 3.5.38-39, there is no conclusive evidence that any observed changes in tropical cyclone genesis, tracks, duration, or surge flooding exceed the variability expected 3.5.38-40, an increase in mean tropical cyclone maximum wind speed is likely. RESEASRCH RESEARCH IS NEEDED CRITICALLY to give public authorities, owners, and design professions rational bases for adaptation measures. (Wright, Richard, American Society of Civil Engineers)	These specific research issues are dealt with in other chapters
320	6	34	6	34	6	This chapter needs more details on experiences. (IPCC WGII TSU)	We have made efforts to integrate more case studies and refer regularly to experiences shared in chapter 9.
321	6	34	19	34	19	Setting research priorities is not the role of IPCC. Rephrase as research gaps that have been identified. (Stocker, Thomas, IPCC WGI TSU)	Language rephrased
322	6	34	20	34	38	It might be helpful to frame these as knowledge gaps, explaining the gap and why filling it would make a difference. This is an opportunity to address donors and funding organizations on exactly what research is needed. (IPCC WGII TSU)	These have been recast slightly as knowledge gaps.
323	6	34	41	0	0	FAQs should be incorporated into the text as stand alone text boxes - see AR4 for examples. Suggest developing one of the current listings into a fully developed FAQ. The developed FAQ will need to maintain the IPCC standard of not being policy prescriptive. (Stocker, Thomas, IPCC WGI TSU)	Referral to FAQ guidance
324	6	34	41	35	17	FAQs should have answers. (IPCC WGII TSU)	Done.
325	6	34	49	34	51	risk sharing alone does not lead to adaptation - it has to be linked to loss reduction (Surminski, Swenja , Association of British Insurers)	Thank you. Point now clarified.
326	6	38	33	38	34	Check spelling (Rock, Joachim, Johann Heinrich von Thuenen-Institute)	References edited
327	6	38	48	38	49	"Change, UNFCCC ... " citation is incorrect. (Rock, Joachim, Johann Heinrich von Thuenen-Institute)	References edited
328	6	41	14	41	14	Check spelling (Rock, Joachim, Johann Heinrich von Thuenen-Institute)	References edited
329	6	44	41	45	12	Use UNISDR rather than ISDR. (Basher, Reid, Secretariat of the High-Level Taskforce on the Global Framework for Climate Services)	Still to check throughout
330	6	49	50	49	53	citations are identical, delete one (Rock, Joachim, Johann Heinrich von Thuenen-Institute)	References edited
331	6	58	0	0	0	Table 6.1 is a good idea, but needs more specifics to be helpful. For example, under health, what specifically needs to be done to improve surveillance programs? What is better land management and how will it reduce risks? Etc. (IPCC WGII TSU)	Unfortunately, this Table and its sub-section is already considerably longer than originally allocated. Cell entries are accordingly limited. Revisit?
332	6	58	0	0	0	This table is useful, but to reduce repetition, it might be desirable to have a generic cross-sector row to cover actions common to all or many sectors (Basher, Reid, Secretariat of the High-Level Taskforce on the Global Framework for Climate Services)	New text to 6.3.1.3 on cross-sectoral linkages with examples provided. Length limitations are a main constraint, given that this sub-section and Table are already long.

#	Ch	From Page	From Line	To Page	To Line	Comment	Response
333	6	58	1	62	33	Table 6 - 1, note 2: include Bolte, A., C. Ammer, M. Löf, P. Madsen, G. J. Nabuurs, P. Schall, P. Spathelf and J. Rock (2009): Adaptive forest management in central Europe: Climate change impacts, strategies and integrative concept. Scandinavian Journal Of Forest Research 24(6): 473-482. in your assessment. (Rock, Joachim, Johann Heinrich von Thuenen-Institute)	Revisit - need guidance on how to include references in Table.
334	6	58	1	62	33	Table 6 - 1, note 4: no literature on forests and forestry included! (Rock, Joachim, Johann Heinrich von Thuenen-Institute)	Revisit - need guidance on how to include references in Table.
335	6	58	2	58	2	Table 6 - 1, "Natural Ecosystems and Forestry / Managing residual risks": The reduction of forest harvesting is only beneficial if current levels of harvest are non-sustainable. If you mean "reduce deforestation and degradation" that would be o.k., but praising harvest reduction without regard to the current level of net annual increment etc. is wrong. Please see: Rock, J. (2008): Klimaschutz und Kohlenstoff in Holz - Vergleich verschiedener Strategien. Institute of Geo-Ecology. Potsdam, University of Potsdam. Ph. D. thesis, 162 p. ( <a href="http://opus.kobv.de/ubp/volltexte/2008/1753/pdf/rock_diss.pdf">http://opus.kobv.de/ubp/volltexte/2008/1753/pdf/rock_diss.pdf</a> ) for a detailed explanation (mostly in German, sorry). (Rock, Joachim, Johann Heinrich von Thuenen-Institute)	Revisit - need guidance on how to include references in Table.
336	6	64	0	0	0	Table 6 - 4: For better legibility, I suggest to change numbers to "million" and give but one decimal place. (Rock, Joachim, Johann Heinrich von Thuenen-Institute)	Removed
337	6	64	0	0	0	Table 6 - 5: Is "promotion of minority rights" not essentially one part of "anti-discrimination" work? (Rock, Joachim, Johann Heinrich von Thuenen-Institute)	Table 6.5 removed here and referred to in chapter 5
338	6	64	0	0	0	Table 6 - 5: I have a strong feeling here that means and methods are mixed up with aims and scopes, but that may be due to me not being used to "social sciences speak". For example, social transfers may lead to better protection of people, but they may also be what allows them to afford living in harm's way, e. g. by moving out of town into fire-prone hillsides. (Rock, Joachim, Johann Heinrich von Thuenen-Institute)	Table 6.5 removed here and referred to in chapter 5
339	6	64	0	0	0	Table 6-4. If available, it would be interesting to have the table split for developing and developed countries (just 2 aggregates). This to grasp the difference in vulnerability that should be higher for poorer regions. (Bosello, Francesco, Fondazione Eni Enrico Mattei, Milan University \)	Removed
340	6	64	0	0	0	Table 6.4 data comes from CRED and should be referenced to them. IFRC is not a primary source. (Basher, Reid, Secretariat of the High-Level Taskforce on the Global Framework for Climate Services)	Removed
341	6	527	33	527	35	It is also important that a legislation that supports disaster risk management in the context of changing climate foresee compliance rules and mechanisms with respect to its own measures and management of activities aiming at risk reduction and mitigation of its impacts. (Ben Mohamed, Abdelkrim, University of Niamey)	Not sure what this refers to as no indicators.