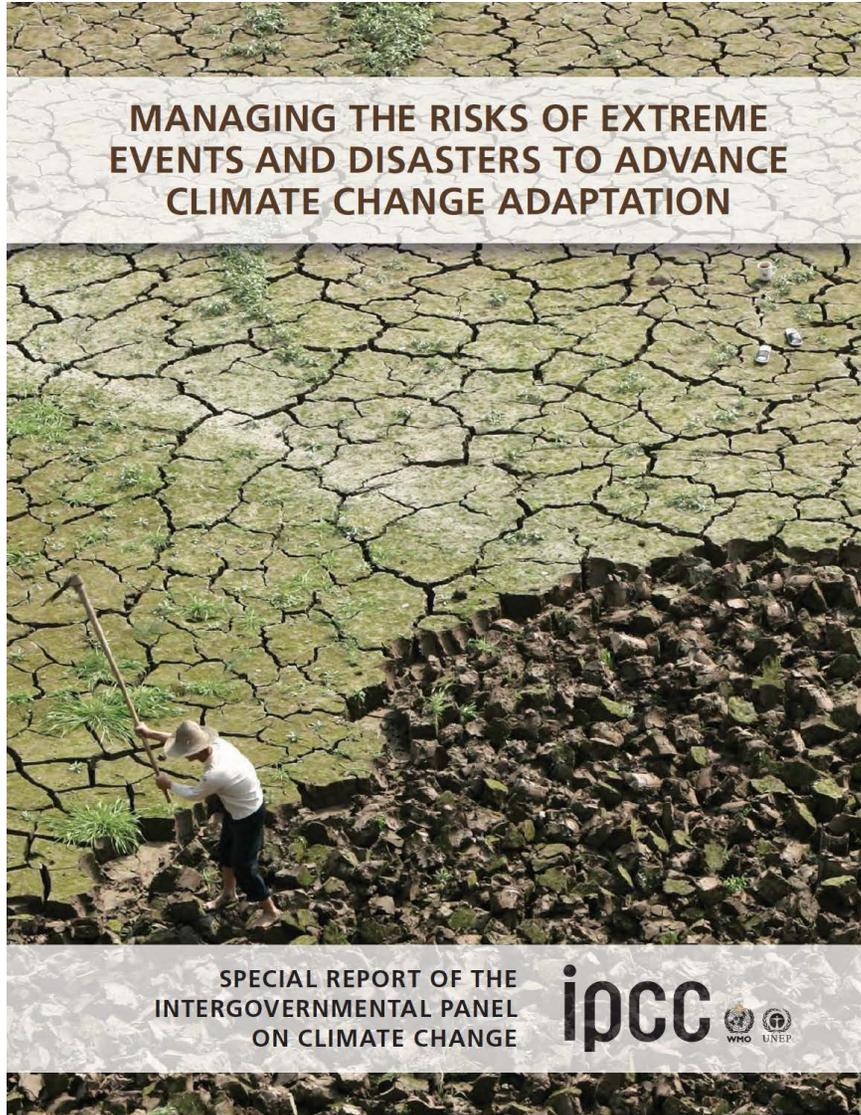




# Experience as a Coordinating Lead Author of an IPCC Report (IPCC Special Report on Extremes)

**Sonia I. Seneviratne, ETH Zurich**

# IPCC Special Report on “Managing the Risks of Extreme Events and Disasters to Advance Climate Change Adaptation” (SREX)



- Joint WG I and II report
- Release of full report: March 2012
- Preparation: 2009-2012
- 87 Coordinating Lead Authors (CLAs) and Lead Authors (LAs)
- 18'784 review comments
- 4 Lead Author writing team meetings
- Approval plenary: Kampala, Uganda, November 2011

- ❖ Norway: proposal at P29 (31 Aug – 4 Sept 2008)
  - in cooperation with ISDR (International Strategy for Disaster Reduction)
- ❖ Revised proposal at B38 (24-25 Nov 2008)
- ❖ Scoping meeting (23-26 Mar 2009)
- ❖ Panel decision at P30 (21-23 Apr 2009)
- ❖ Four Lead Author Meetings
  - LA1, Panama City, Panama (9-12 Nov 2009)
  - LA2, Hanoi, Vietnam (22-25 Mar 2010)
  - LA3, Geneva, Switzerland (25-28 Oct 2010)
  - LA4, Gold Coast, Australia (16-19 May 2011)
- ❖ **1<sup>st</sup> Joint Session of WGI/WGII: Kampala, Uganda (14-19 Nov 2011)**

2008

2009

2010

2011

# 3

## Changes in Climate Extremes and their Impacts on the Natural Physical Environment

### Coordinating Lead Authors:

Sonia I. Seneviratne (Switzerland), Neville Nicholls (Australia)

### Lead Authors:

David Easterling (USA), Clare M. Goodess (United Kingdom), Shinjiro Kanae (Japan), James Kossin (USA), Yali Luo (China), Jose Marengo (Brazil), Kathleen McInnes (Australia), Mohammad Rahimi (Iran), Markus Reichstein (Germany), Asgeir Sorteberg (Norway), Carolina Vera (Argentina), Xuebin Zhang (Canada)

### Review Editors:

Matilde Rusticucci (Argentina), Vladimir Semenov (Russia)

### Contributing Authors:

Lisa V. Alexander (Australia), Simon Allen (Switzerland), Gerardo Benito (Spain), Tereza Cavazos (Mexico), John Clague (Canada), Declan Conway (United Kingdom), Paul M. Della-Marta (Switzerland), Markus Gerber (Switzerland), Sunling Gong (Canada), B. N. Goswami (India), Mark Hemer (Australia), Christian Huggel (Switzerland), Bart van den Hurk (Netherlands), Viatcheslav V. Kharin (Canada), Akio Kitoh (Japan), Albert M.G. Klein Tank (Netherlands), Guilong Li (Canada), Simon Mason (USA), William McGuire (United Kingdom), Geert Jan van Oldenborgh (Netherlands), Boris Orłowsky (Switzerland), Sharon Smith (Canada), Wassila Thiaw (USA), Adonis Velegrakis (Greece), Pascal Yiou (France), Tingjun Zhang (USA), Tianjun Zhou (China), Francis W. Zwiers (Canada)

### This chapter should be cited as:

**Seneviratne, S.I., N. Nicholls, D. Easterling, C.M. Goodess, S. Kanae, J. Kossin, Y. Luo, J. Marengo, K. McInnes, M. Rahimi, M. Reichstein, A. Sorteberg, C. Vera, and X. Zhang, 2012:** Changes in climate extremes and their impacts on the natural physical environment. In: *Managing the Risks of Extreme Events and Disasters to Advance Climate Change Adaptation* [Field, C.B., V. Barros, T.F. Stocker, D. Qin, D.J. Dokken, K.L. Ebi, M.D. Mastrandrea, K.J. Mach, G.-K. Plattner, S.K. Allen, M. Tignor, and P.M. Midgley (eds.)]. A Special Report of Working Groups I and II of the Intergovernmental Panel on Climate Change (IPCC). Cambridge University Press, Cambridge, UK, and New York, NY, USA, pp. 109-230.

## Outline SREX

1. Climate Change: New Dimensions in Disaster Risk, Exposure, Vulnerability, & Resilience

**CONTEXT  
BACKGROUND**

2. Determinants of Risk: Exposure & Vulnerability

3. Changes in Climate Extremes and their Impacts on the Natural Physical Environment

**PHYSICAL BASIS**

4. Changes in Impacts of Climate Extremes: Human Systems and Ecosystems

**IMPACTS**

5. Managing the Risks from Climate Extremes at the Local Level

6. National Systems for Managing the Risks from Climate Extremes and Disasters

**FROM LOCAL  
TO INTERNATIONAL**

7. Managing the Risks: International Level & Integration Across Scales

8. Toward a Sustainable & Resilient Future

**OUTLOOK & EXAMPLES**

9. Case Studies

## Outline SREX

1. Climate Change: New Dimensions in Disaster Risk, Exposure, Vulnerability, & Resilience	<b>WG II</b>
2. Determinants of Risk: Exposure & Vulnerability	
3. Changes in Climate Extremes and their Impacts on the Natural Physical Environment	<b>WG I</b>
4. Changes in Impacts of Climate Extremes: Human Systems and Ecosystems	<b>WG II</b>
5. Managing the Risks from Climate Extremes at the Local Level	
6. National Systems for Managing the Risks from Climate Extremes and Disasters	<b>WG II</b>
7. Managing the Risks: International Level & Integration Across Scales	
8. Toward a Sustainable & Resilient Future	
9. Case Studies	<b>WG II</b>

**WG I: The Science of Climate Change**

**WG II: Impacts, Adaptation, and Vulnerability**

## Outline SREX

- |   |                                |
|---|--------------------------------|
| 1. Climate Change: New Dimensions in Disaster Risk, Exposure, Vulnerability, & Resilience | 2 CLAs, 6 LAs, 6 CAs, 40pp.    |
| 2. Determinants of Risk: Exposure & Vulnerability   | 2 CLAs, 7 LAs, 9 CAs, 44pp.    |
| 3. Changes in Climate Extremes and their Impacts on the Natural Physical Environment      | 2 CLAs, 12 LAs, 28 CAs, 122pp. |
| 4. Changes in Impacts of Climate Extremes: Human Systems and Ecosystems                   | 3 CLAs, 9 LAs, 22 CAs, 60pp.   |
| 5. Managing the Risks from Climate Extremes at the Local Level                            | 2 CLAs, 6 LAs, 13 CAs, 48pp.   |
| 6. National Systems for Managing the Risks from Climate Extremes and Disasters            | 2 CLAs, 6 LAs, 13 CAs, 54pp.   |
| 7. Managing the Risks: International Level & Integration Across Scales                    | 2 CLAs, 6 LAs, 5 CAs, 43pp.    |
| 8. Toward a Sustainable & Resilient Future  | 3 CLAs, 6 LAs, 19 CAs, 50pp.   |
| 9. Case Studies   | 3 CLAs, 8 LAs, 36 CAs, 56pp.   |

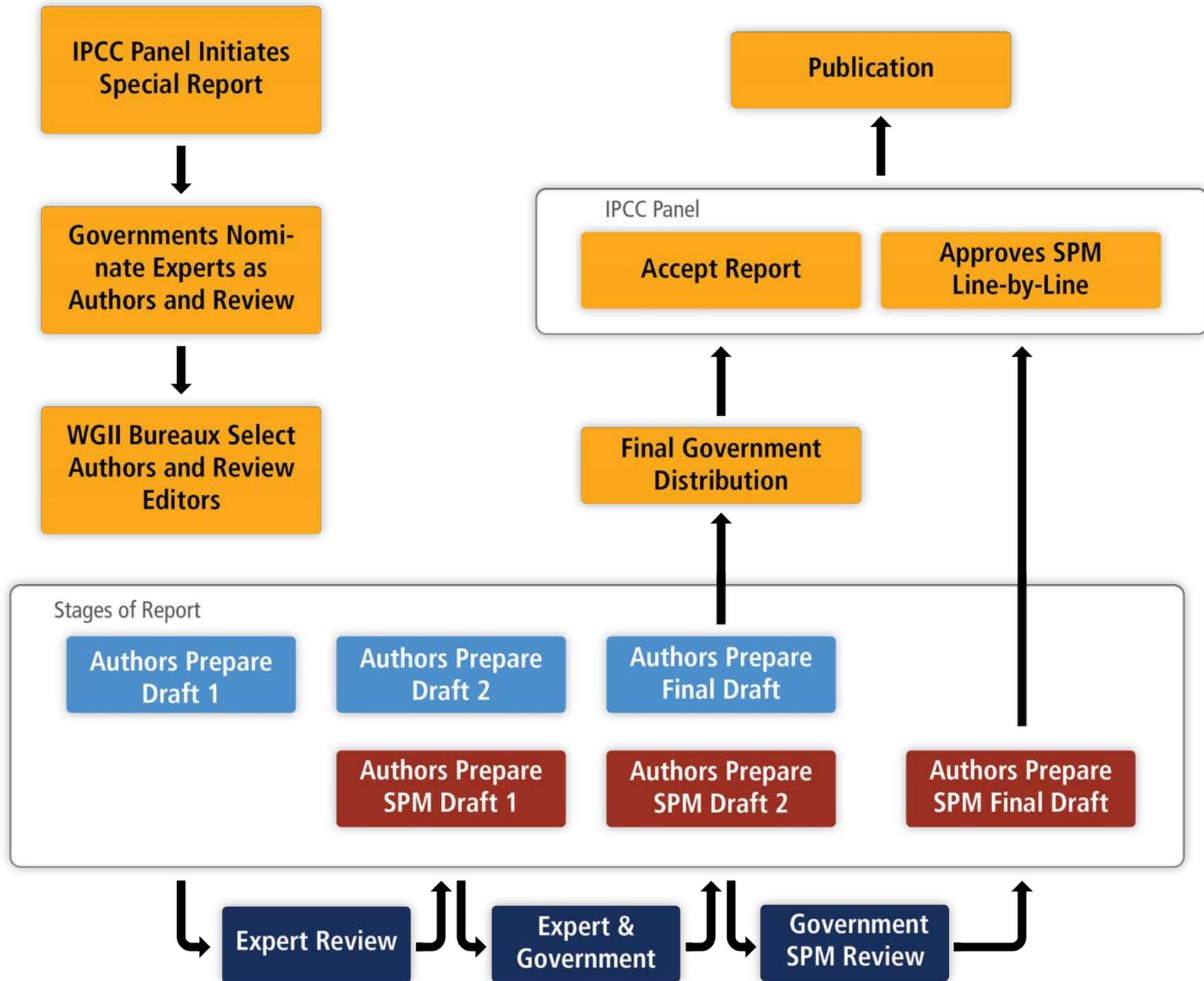
**CLA: Coordinating Lead Author, LA: Lead Author, CA: Contributing Author**

## Changes in climate extremes and their impacts on the natural physical environment

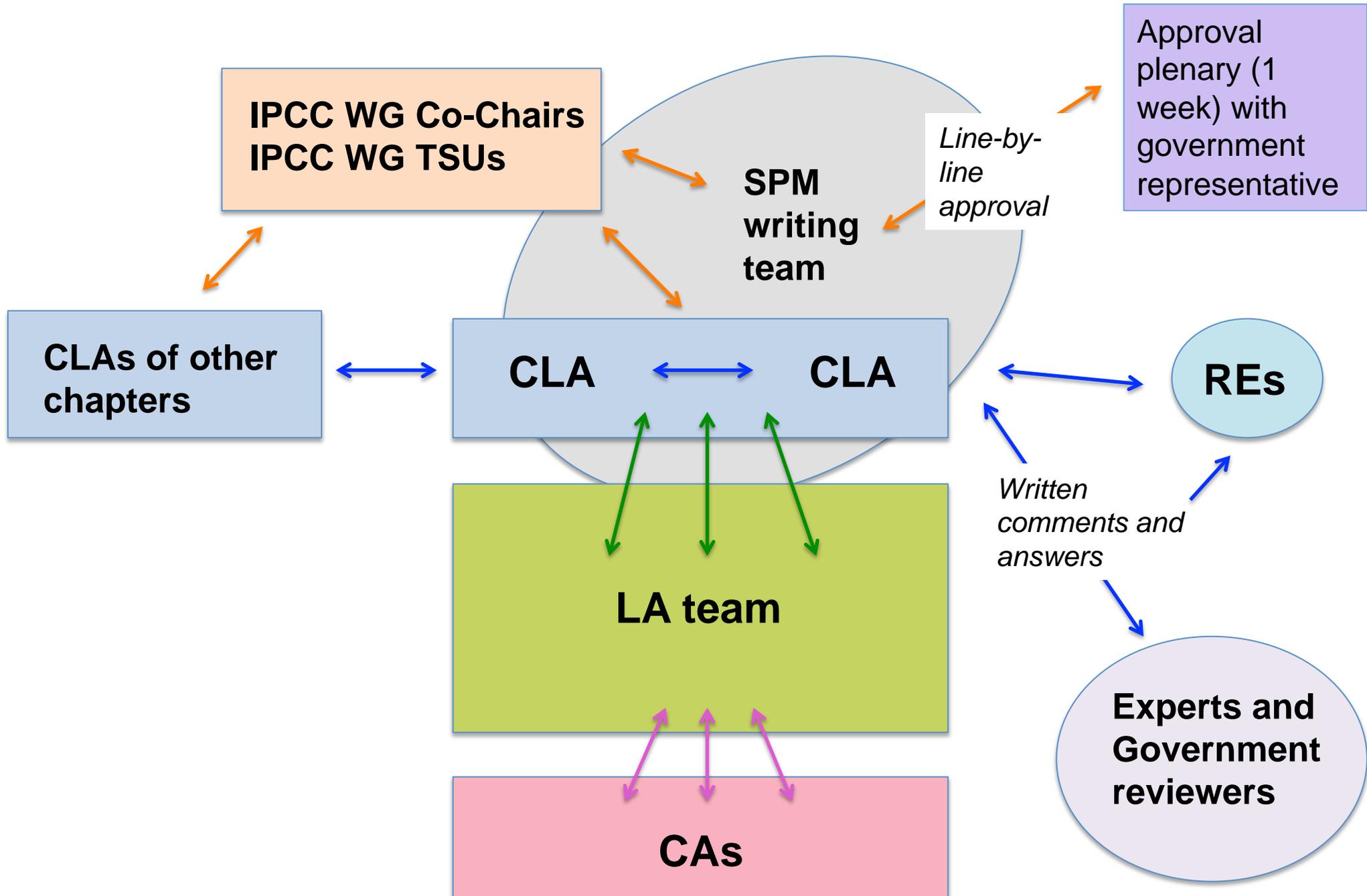
**Authors:** Sonia Seneviratne, Neville Nicholls, David Easterling, Clare Goodess, Shinjiro Kanae, James Kossin, Yali Luo, Jose Marengo, Kathleen McInnes, Mohammad Rahimi, Markus Reichstein, Asgeir Sorteberg, Carolina Vera, Xuebin Zhang, and 28 CAs

- **Complexities:** → *First time that literature on extremes was synthesized by a single team; new uncertainty guidance*
- Provided **regional assessments** of observed and projected changes in extremes for 26 regions
- **More literature (~ 1100 references in Chapter 3; >70% of these published since AR4)**
- **>5'000 comments** on chapter 3 material (out of ~18'000 total for SREX); **~4'600 CLA-CLA emails...**

# IPCC reports: Standard process



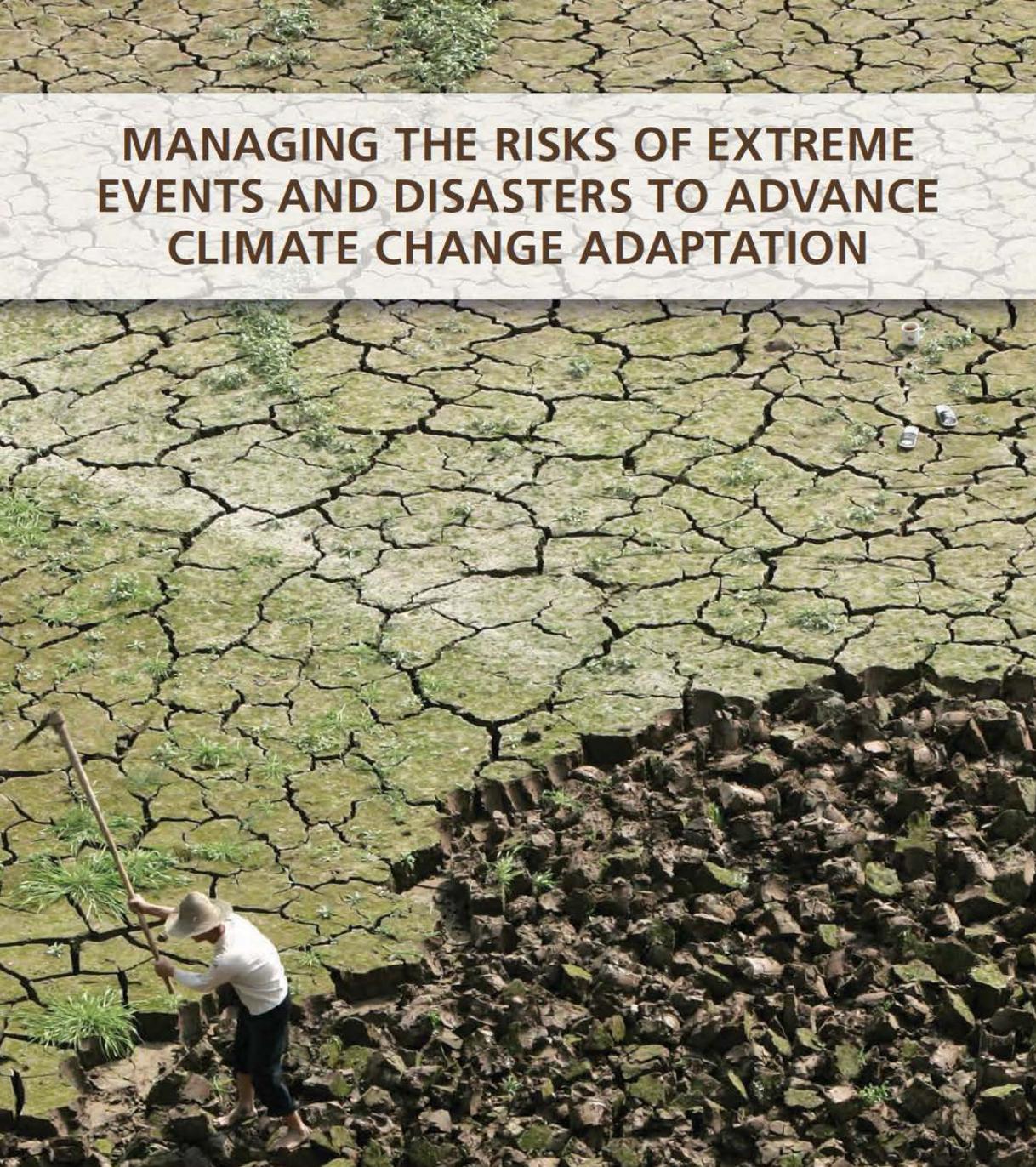
# Tasks of Coordinating Lead Authors



## The most challenging parts

- Keeping the schedule and aiming at being 100% accurate (new relevant literature, number of comments, interactions with other chapters, risky “nice-to-have” items)
- Organizing teleconferences across 8-9 time zones
- Managing the email flood (e.g. >90 SREX emails on August 5 2011...)
- Double-checking excel-tables with >2000 comments
- Lack of sleep at approval session... (e.g. taking decisions at 3 am on Friday)
- Media contacts while being in Uganda...





**MANAGING THE RISKS OF EXTREME  
EVENTS AND DISASTERS TO ADVANCE  
CLIMATE CHANGE ADAPTATION**

[www.ipcc.ch](http://www.ipcc.ch)

[www.ipcc-wg2.gov/SREX](http://www.ipcc-wg2.gov/SREX)

**SPECIAL REPORT OF THE  
INTERGOVERNMENTAL PANEL  
ON CLIMATE CHANGE**

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INTERGOVERNMENTAL PANEL ON climate change