



ar6

#### Working Group II Outline

1. Point of departure and key concepts

# Section 1: Risks, adaptation and sustainability for systems impacted by climate change (chapters 2-8)

- 2. Terrestrial and freshwater ecosystems and their services
- 3. Ocean and coastal ecosystems and their services
- 4. Water
- 5. Food, fibre and other ecosystem products
- 6. Cities, settlements and key infrastructure
- 7. Health, wellbeing and the changing structure of communities
- 8. Poverty, livelihoods and sustainable development







# SECTION 2: Regions (Chapters 9-15) each considering regional oceans

- 9. Africa [~50 pages]
- 10. Asia [~50 pages]
- 11. Australasia [~30 pages]
- 12. Central and South America [~50 pages]
- 13. Europe [~40 pages]
- 14. North America [~40 pages]
- 15. Small Islands [~30 pages]





#### Common elements across all *regional* chapters (guidance points not an outline)

- Information on selected regional and sub-regional climate characteristics and zones
- Summary Table and/or figures with WGI and WGII information, combined with risk assessment (e.g., SREX SPM.1)
- Detection and attribution of observed impacts and responses in natural and human systems on diverse time scales
- Region specific information on exposure and vulnerability
- Current sectoral climate risks, including specific regional and sub-regional considerations related to land, coasts and regional oceans
- Cultural and psychological dimensions (values, attitudes, ethical aspects, identity, behaviours, and different types of knowledge systems)
- Observed impacts and projected risks including identifying key risks and residual risks as well as
  development pathways depending on rate and level of climate change, including extremes and sea
  level rise
- Diverse adaptation options, including opportunities, enablers, limits, barriers, adaptive capacity, and finances
- Governance and economic aspects including legal, institutional, financing, price responses, and trade
- Cross sectoral, intra-regional, and inter-regional issues including consideration of temporal scale
- Interaction of risks and responses to climate change with sustainable development pathways
- Implications of availability and heterogeneity of data, including the use of 'grey literature'
- Lessons from case studies





## Authors in WGII report per Chapter

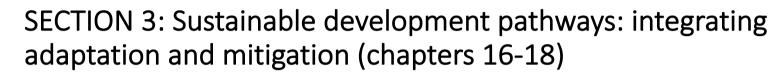
- 2 3 Coordinating Lead Authors
- 7– 10 Lead Authors
- 2 3 Review Editors
- WGI links regional chapters:
  - 1 lead author with regional climate expertise per regional chapter







## ar6



- 16. Key risks across sectors and regions
- 17. Decision-making options for managing risk
- 18. Climate resilient development pathways











# CROSS-CHAPTER PAPERS (built by chapter authors) (with material for TS/SPM as appropriate)

integrating sectors, regions and updating from special reports



**Biodiversity hotspots** (land, coasts and oceans) chs. 2,3,9-15, SROCC, SRCCL

Cities and settlements by the sea

chs. 3,6,9-15,16-18, SROCC

Deserts, semi-arid areas, and desertification

chs. 2,4,5,9-14, SRCCL

Mediterranean region, chs. 3,6,9-15,16-18, SROCC, SRCCI

Mountains, chs. 2,9-14, SROCC

Polar regions, chs. 2-8,10-15, SROCC, SRCCL

Tropical forests, chs. 2,9,11,12, SRCCL





# Regional Climate and Impacts: WGII requirements and wishful thinking

#### Goals:

 WGI: Producing regional climate information in the form of an atlas that is also useful for WGII in the context of attributing observed impacts and reducing uncertainty in impact projections and risk assessments.

#### Timeframe:

- WGII AR6 starts and ends ca. 6 months later than WGI (Table 1)
- A joint product is not feasible for Working Group Assessment Reports, therefore a step by step procedure would need to be designed, with a joint product conceivable for synthesis report.





	Year	WGI	WGII	SYR
Timelines for AR6 WGI, WGII, and SYR	2018	LAM1: Jun 25-29, China		
	2019	LAM2: Jan 7-11, Canada		
			LAM1: Jan 21-25, Durban	
				Scoping: Apr 8-14
				(Selection author team: envisioned Jun 17-21)
			LAM2: Jul 8-12, Nepal (TBC) + Regional Day	
		LAM3: Aug 28-1 Sept		
				Core Writing Team: Dec 2-8
	2020		LAM3: Jan 27-2 Feb, Portugal	
		LAM4: Jun 1-5		
				Core Writing Team: Aug 31-4 Sept
			LAM4: Nov 2-6, Cuba (TBC)	
	2021	Approval: Apr 12-16		
			Approval: Oct 4-10, Germany	
	2022			Approval: Apr 4-8

#### Vision:

- WGI: produces a map / compilation of maps with WGII relevant regional climate information (e.g. T and variability, precipitation, drought, sea level, storm trajectory, coastal ocean temperatures, acidification, hypoxia) for the present compared to pre-industrial and for different climate futures (scenarios) over time
- Maps provided match the regional chapters and can be used as a template to compile impact information (BOG 1.2, BOG 2.2, BOG 2.3)
- Alternative maps focus on climatic zones (Tropics, sub-tropics, Mediterranean climates etc.), or landscapes (mountain areas) (BOG 1.3)
- Relevant resolution of maps to be defined (scale, extent, time-periods)
  across different systems and different sectors (BOG 1.1, BOG 2.1, BOG 2.3)



#### Goal: Going beyond AR5 WGII Map of impacts, types, confidence







#### WGII AR6, building on AR5:

- Reports on observed climate impacts and those projected into the future, following scenarios, considering uncertainties in detection and attribution to (anthropogenic) climate and leading to an evaluation of risk.
- Compiles impacts and risk in tabular form
- Selects impacts to be depicted onto climate maps considering approaches for detection and attribution (?)
- Each regional chapter combines the respective WGI maps with regional impact information (how?), produces its own multidimensional atlas (to be designed?)
- Maps for climatic zones may be useful for cross-chapter papers



# A joint WGI and II atlas as an annex to the Synthesis Report would then appear possible.

### Meeting product (s):

- Guidelines (2 page bullet points) embedded in meeting report -
  - for producing those maps and for how to use them
  - how to map impacts and risks
  - Proposal for a joint product for the SYR report





### Next steps WGII:

- LAM1 WGII (Jan 2019)
  - Report back from this meeting; thoughts around joint Atlas product for SYR, options for Regional Chapter and Cross-Chapter paper maps
  - Reporting of plans at SYR Scoping (April 2019)
- LAM2 WGII (July 2019) Include "Regional day" ahead of LAM to:
  - Bring authors of regional chapters together (9-15) plus the key risks chapter (16), and invite the WGI authors of regional chapters to present and discuss the approach developed at this expert meeting and during WGIAR6. Plus the **2 CLAs of WGI atlas**.
  - Agree best and uniform practices across chapters (and papers) to map impacts onto spatial climate information



#### THANK YOU FOR YOUR ATTENTION!

#### For more information:

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