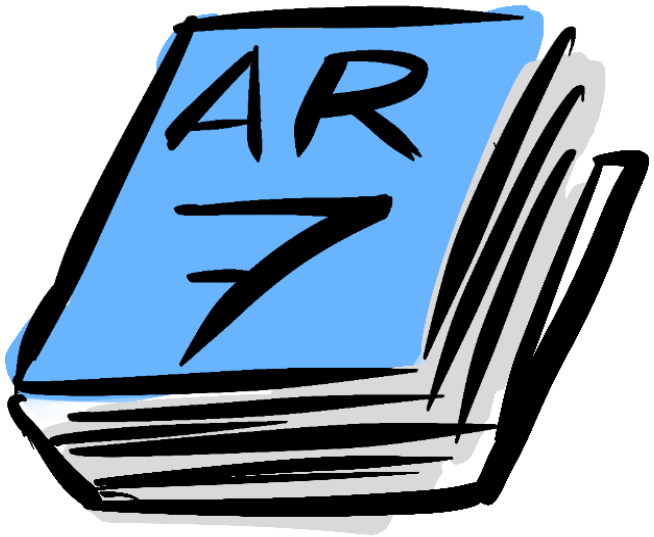
IPCC Working Group II, 7th Assessment Cycle

SBSTA Meeting: IPCC Update
The Chamber | 20 June | 10.00 AM

Update on the ongoing work of Working Group II of the Intergovernmental Panel on Climate Change

Bart van den Hurk and Winston Chow
Working Group II Co-Chairs, IPCC AR7



Introducing the 7th Assessment Cycle

Timeline of the 7th Assessment Cycle (AR7)

Scoped Authors working

★ **Special Report** on Climate Change and Cities (March 2027)

★ **Methodology Report** on Short-lived Climate Forcers (second half of 2027)

★ **Methodology Report** on Carbon Dioxide Removal Technologies, Carbon Capture Utilization and Storage (by end of 2027)

Scoped Authors being selected

★ **Seventh Assessment Report** Working Group I, II, & III contributions

★ **IPCC Technical Guidelines** for Assessing Climate Change Impacts and Adaptation Including Indicators, Metrics and Methodologies

★ **Synthesis Report** (by late 2029, after completion of the Working Group contributions)

IPCC elected new Chair and Bureau (July 2023)

IPCC decided on products and workplan for the seventh cycle (January 2024)

2023 — 2024 — 2027 — (tbc) — 2029

★ *AR7 products*

Report Timelines

SR Cities

- Apr 2024 — Scoping Meeting
- Jul 2024 — Outline Agreement
- Aug– Sep 2024 — Author Nomination
- Sep – Dec 2024 — Author Selection
- Mar 2025 — First Lead Author Meeting (LAM1)
- JULY 2025 — **LAM2**
- Sep 2025 — Expert Review of First Order Draft
- Jan 2026 — LAM3
- May - Jul 2026 — Expert and Government Review of Second Order Draft (SOD)
- Aug 2026 — LAM4
- Oct 2026 — Final Draft, Summary for Policy Makers (SPM)
- Dec 2026 – Feb 2027 — Government Review of SPM
- Mar 2027 — Approval of SPM and acceptance of Report
- Mid 2027 — Publication of Report

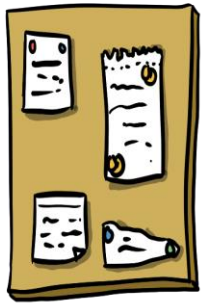
AR7

- Dec 2024 — Scoping Meeting
- Mar 2025 — Outline Agreement
- Mar - Apr 2025 — Author Nomination
- ONGOING — **Author Selection**
- Dec 2025 — **First Lead Author Meating (LAM1)**
- To be decided — LAM2
- Expert Review First Order Draft
- LAM3
- Expert and Government Review of Second Order Draft (SOD)
- LAM4
- Final Draft, Summary for Policy Makers (SPM)
- Government Review of SPM
- Approval of SPM and acceptance of Report
- Publication of Report

Our AR7 outline scoping process

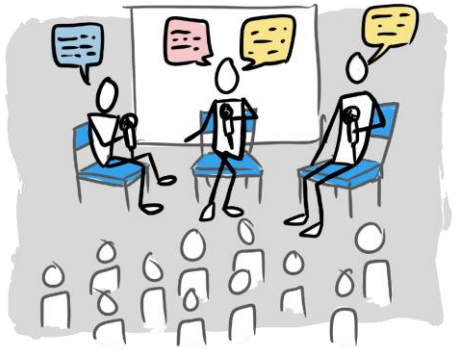
Setting up expertise list for scoping meeting

- Topics of interest retrieved from analysis of AR6, IPCC panel discussions, (Co-)Chairs vision, Bureau consultations and engagements with stakeholder organizations



Selection of experts

- 1,340 nominations received, 65 invited.
- Selection criteria included regional diversity, gender balance, solicited domain expertise (including adaptation, scenarios, finance and Guidelines)



Conducted further engagement sessions (over 1,000 people engaged)

- Cross WG pre-scoping webinars with non-selected nominees and pre-scoping survey with previous IPCC experts, Focal Points, Observer organizations
- Engagement call with ~50 former (C)LAs, REs, Bureau members
- Pre-recorded videos on selected topics and post-scoping meeting survey with ~60% participants returned generally positive

AR7 Pre-scoping WGII Survey – some highlights on emerging topics

Climate change impacts

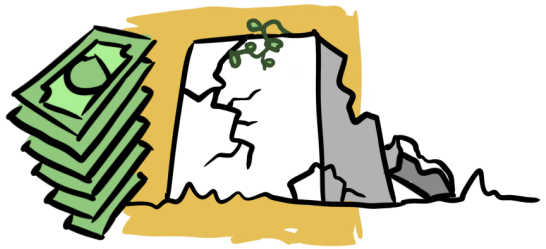
1

Climate Justice & Equity:
Vulnerable Communities & Global Representation

- **Adaptation & resilience**
- **Loss & damage**
- **Climate & health nexus**
- **Biodiversity & ecosystem services**
- **Regional climate impacts**

Risks, vulnerability and exposure

2



&
security risks

- **Localized climate data**
- **Risk quantification & cost analysis**
- **Financial mechanisms & funding for adaptation and loss and damage**

How to support different levels of adaptation planning from national to local levels

Climate change adaptation

3

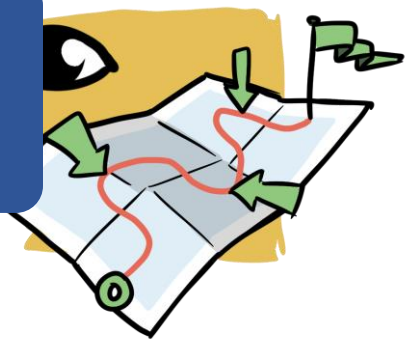
Adaptation strategies & effectiveness:
Metrics, indicators, adaptation progress

- **Climate justice & equity**
- **Loss & damage**
- **Trans**
  adapt
- **Indige**
  know
- **Urban**
- **Climate-security nexus**

Standardization and improvement of methods, models of assessment

Technical guidelines

4



Assessment methods & metrics:
Planning, local actions, clear indicators

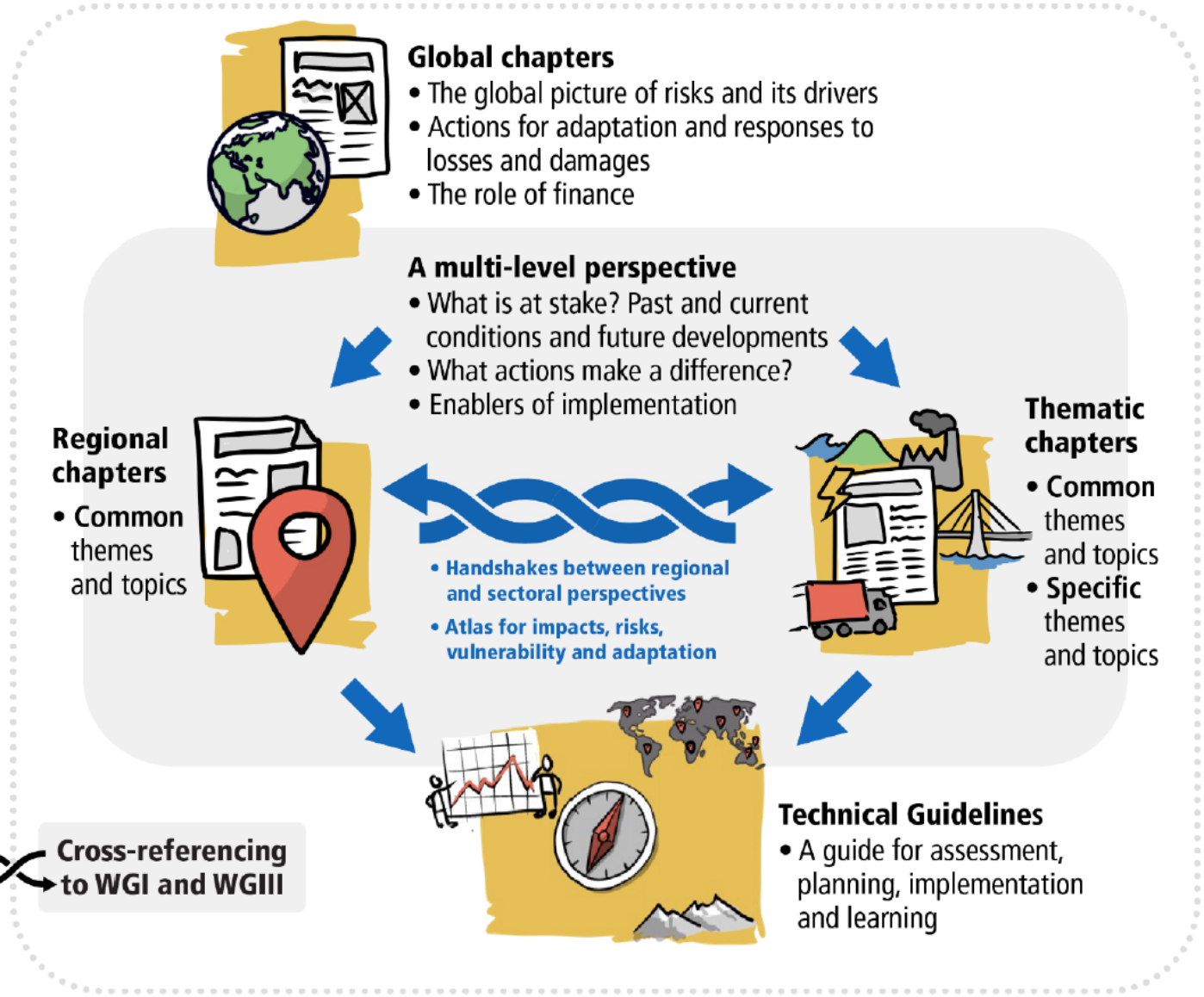
- **Standardization**
- **Best practices in adaptation**
- **Filling gaps of, adaptation planning**

Highlight adaptation best practices

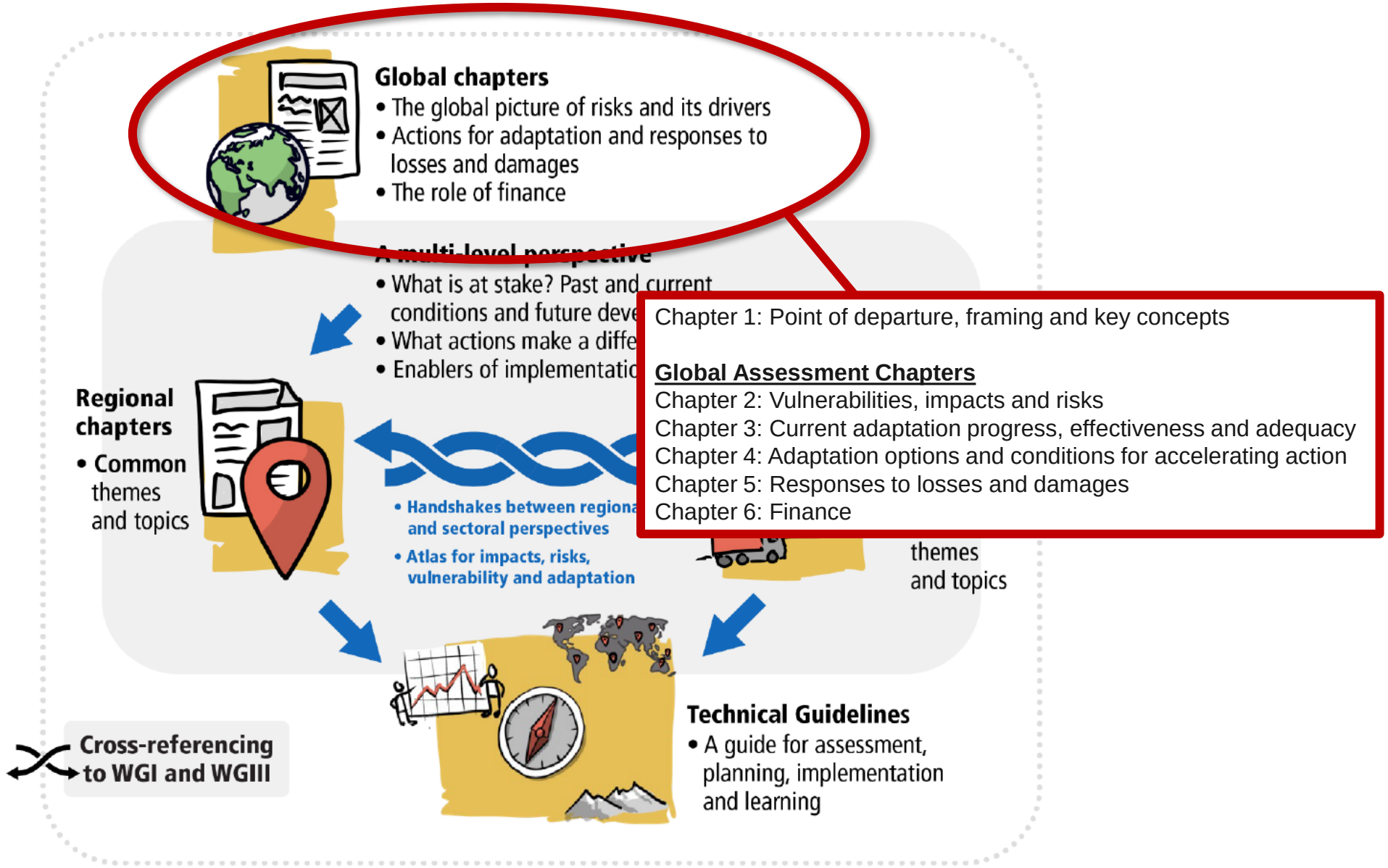
The outline of the Working Group II contribution to the 7th Assessment Report

https://tinyurl.com/ar7outline

Outline of WG II AR7



Starting with global chapters

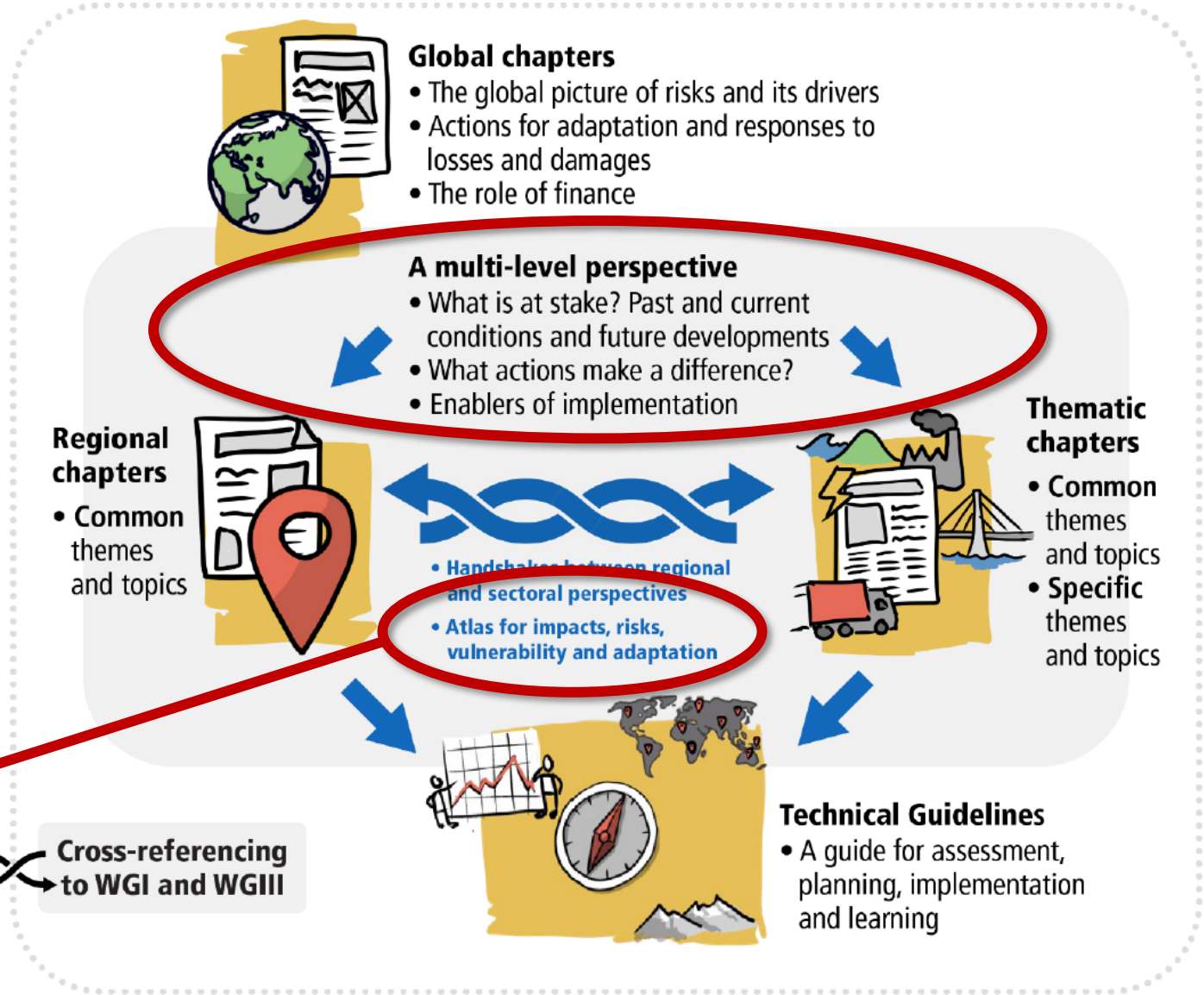


Chapter 1: Point of departure, framing and key concepts

Global Assessment Chapters

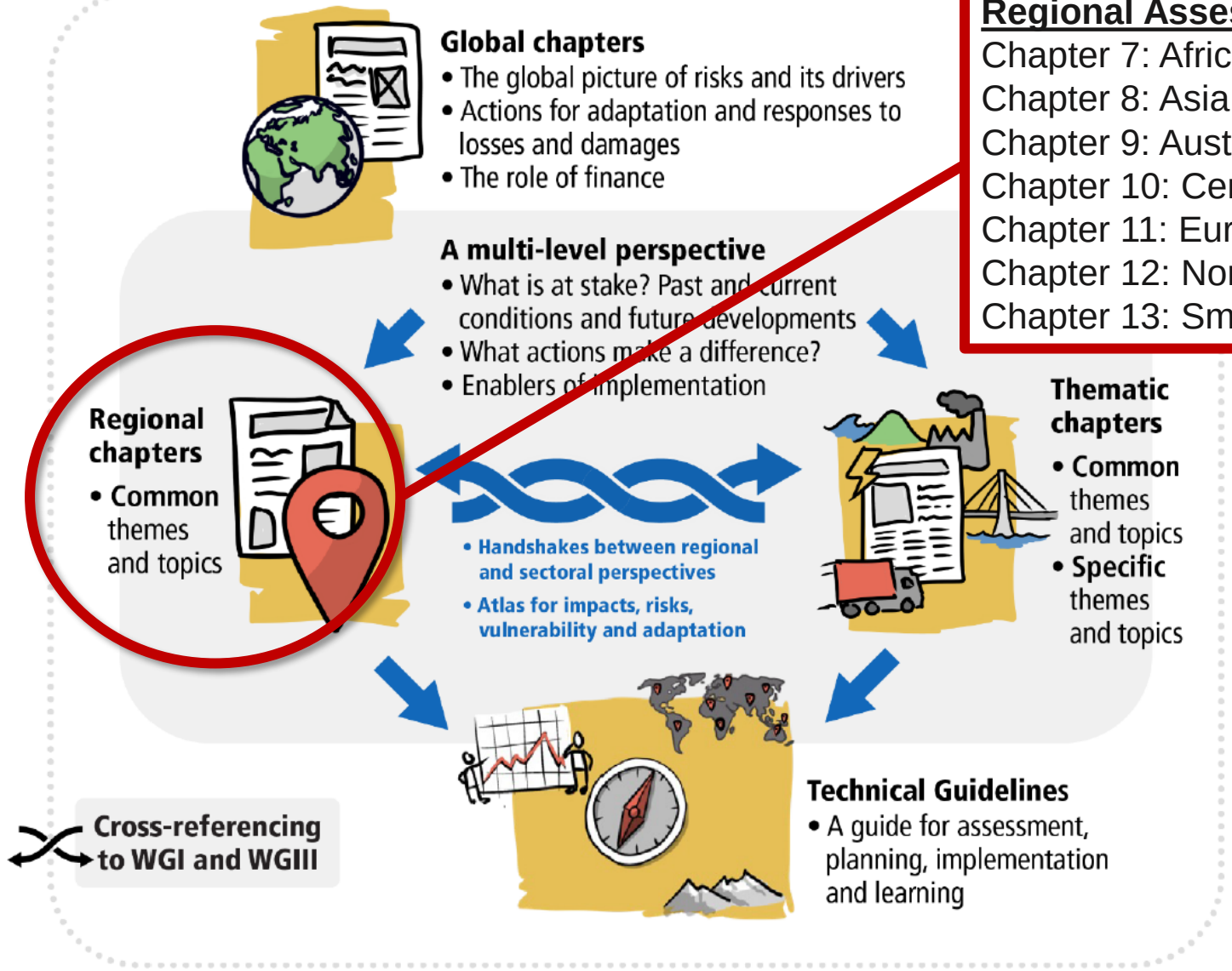
Chapter 2: Vulnerabilities, impacts and risks
Chapter 3: Current adaptation progress, effectiveness and adequacy
Chapter 4: Adaptation options and conditions for accelerating action
Chapter 5: Responses to losses and damages
Chapter 6: Finance

Segments to note



Digital Atlas
Impacts, risks, vulnerability and adaptation

Progressing to regional chapters



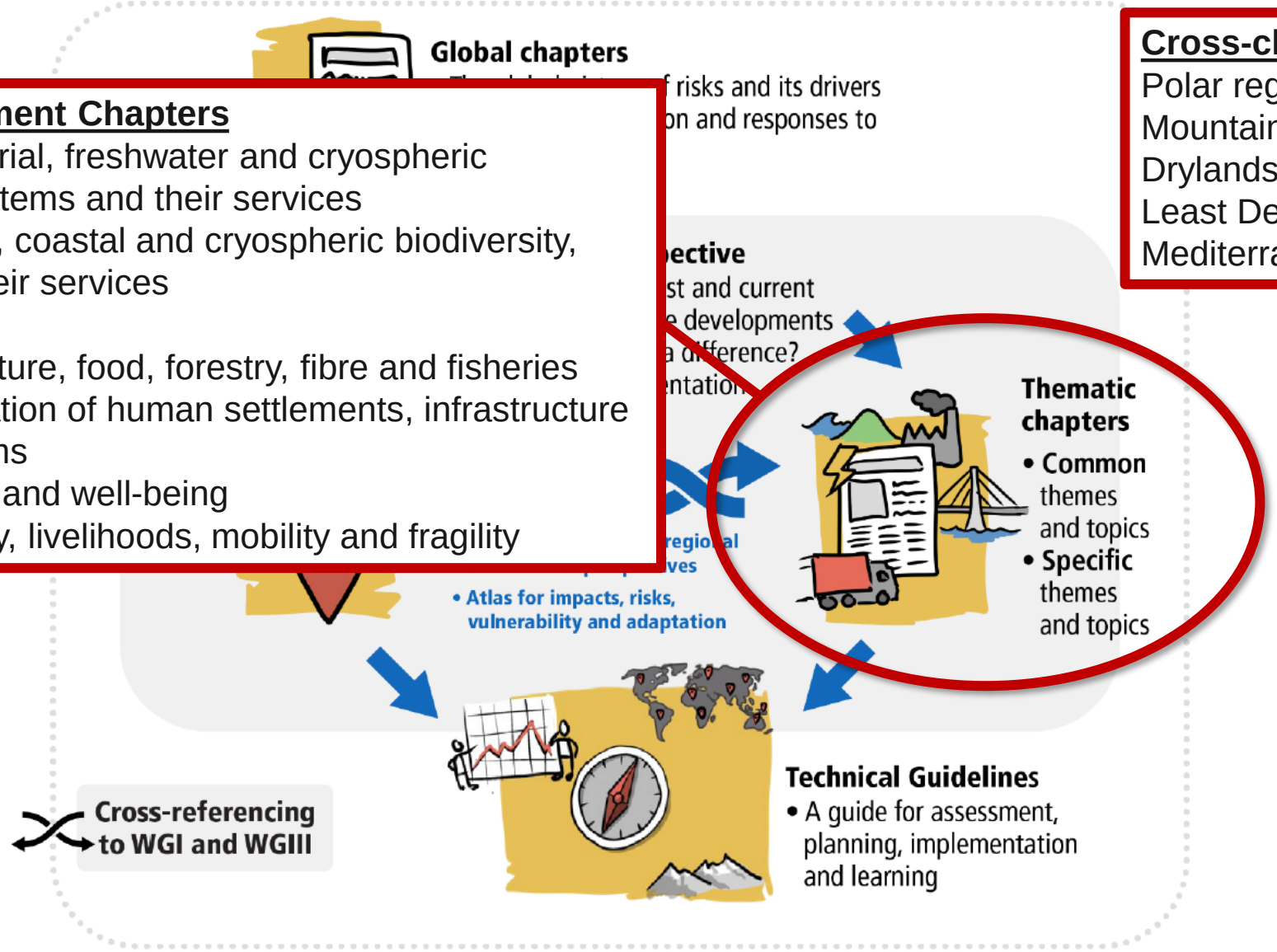
Regional Assessment Chapters

Chapter 7: Africa
Chapter 8: Asia
Chapter 9: Australasia
Chapter 10: Central and South America
Chapter 11: Europe
Chapter 12: North America
Chapter 13: Small Islands

Moving to thematic chapters

Thematic Assessment Chapters
Chapter 14: Terrestrial, freshwater and cryospheric biodiversity, ecosystems and their services
Chapter 15: Ocean, coastal and cryospheric biodiversity, ecosystems and their services
Chapter 16: Water
Chapter 17: Agriculture, food, forestry, fibre and fisheries
Chapter 18: Adaptation of human settlements, infrastructure and industry systems
Chapter 19: Health and well-being
Chapter 20: Poverty, livelihoods, mobility and fragility

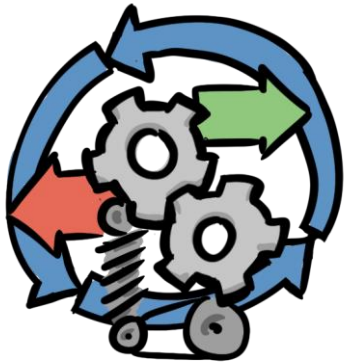
Cross-chapter Papers
Polar regions
Mountain regions
Drylands and Deserts
Least Developed Countries
Mediterranean climates



IPCC Technical Guidelines for Assessing Climate Change Impacts and Adaptation including Indicators, Metrics and Methodologies

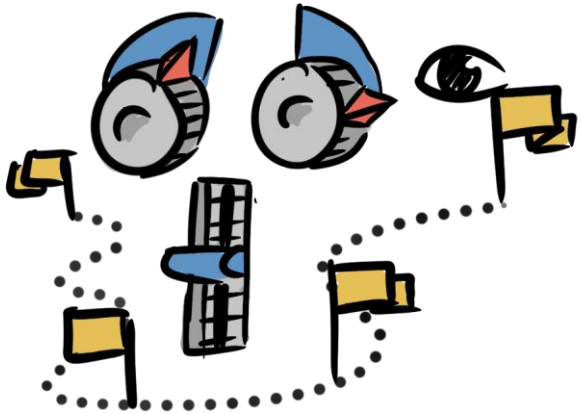
Section 1
Introduction

- Rationale, Framing and Purpose



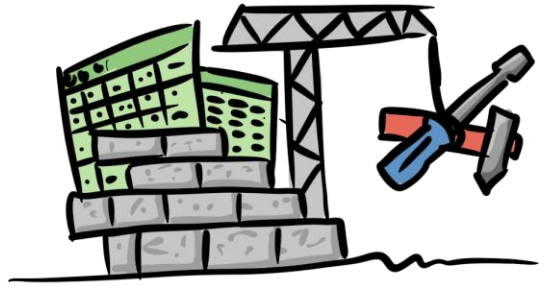
Section 2
Adaptation in practice

- Key principles and concepts
- Context scan: governance, levels of adaptation action, societal development
- Stand-alone vs continuous adaptation



Section 3
Technical Guidelines

1. Scoping and goal setting
2. Risk assessment
3. Planning
4. Implementation
5. Learning, monitoring and evaluation



Section 4
Tools, building blocks and enablers

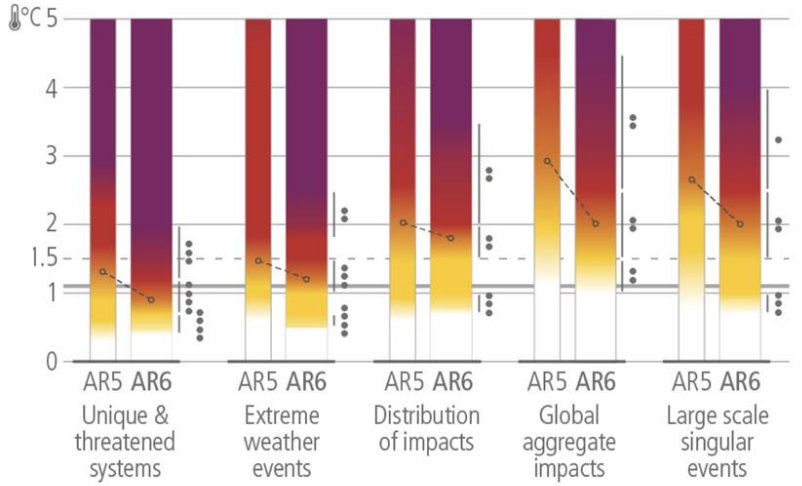
- Methodologies, tools, metrics & indicators
- Co-design approaches
- Services & data
- Financing adaptation planning
- Governance and regulatory enablers

Spotlight on some emerging topics in AR7…

Global assessment of vulnerabilities, impacts and risks (Ch 2)

Building on AR6

- Update on risk distribution, reasons for concern and key risks
- Addressing complex, compound, cascading and residual risks



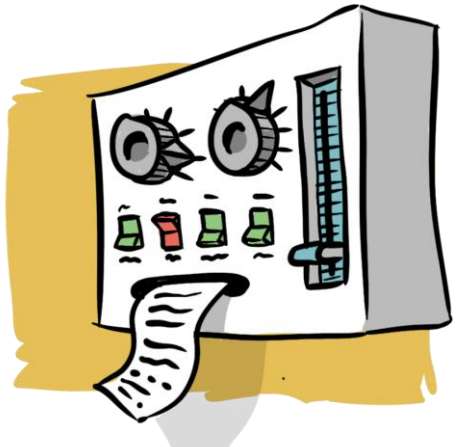
Emphasis in AR7

- Mapping of vulnerability gradients across temporal and spatial scales
- Economic and non-economic losses and damages
- Recognizing slow- and rapid onset events
- Risk management and ethics of Solar Radiation Modification
- Other approaches to risk assessment
- Design of an Interactive Atlas for WGII quantities

Global assessment of adaptation (Ch 3 & 4)

Chapter 3 'Current adaptation progress, effectiveness and adequacy'

- Adaptation progress, gaps, limits and barriers, costs, trade-offs and co-benefits
- Indicators and metrics to measure adaptation
- Effectiveness and scope of state and non-state actions



Chapter 4 'Adaptation options and conditions for accelerating action'

- Adaptation options considering current context, and different levels of global warming & development
- Adaptive and continuous learning, monitoring and evaluation to enhance implementation and avoid adverse outcomes
- Drivers & enablers for accelerated adaptation action, and means of implementation
- Enhancing agency of stakeholders and empowering Indigenous Peoples and local communities
- Synergies and trade-offs of adaptation with Disaster Risk Reduction and sustainable development

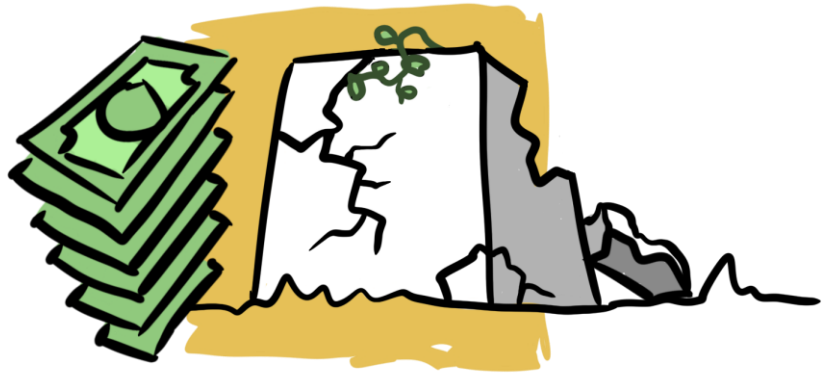
Responses to losses and damages (Ch 5)

Coverage in AR6

- Special Report on 1.5 degrees
- WG II report (cross-chapter box)

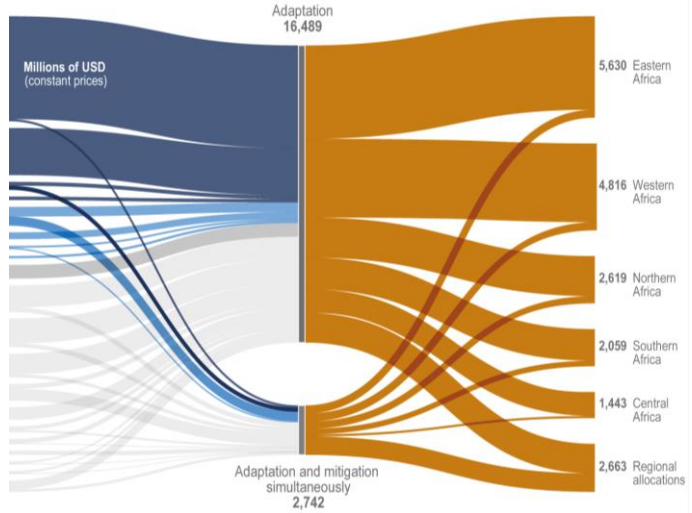
Emphasis in AR7

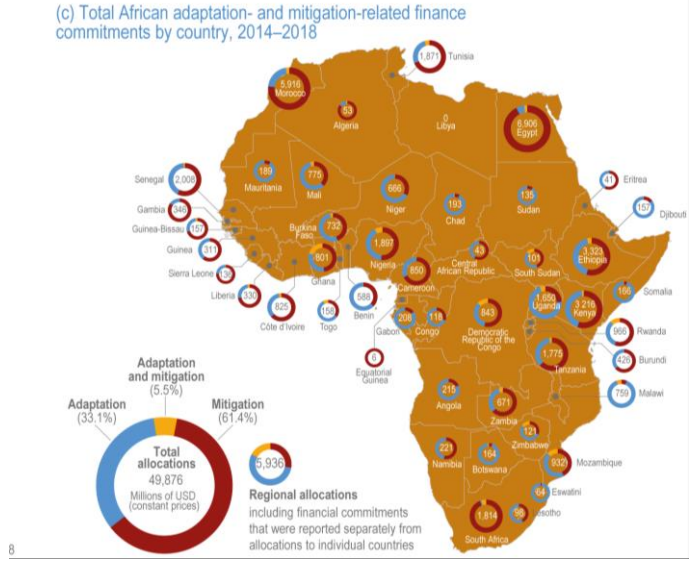
- Responses to losses and damages, their effectiveness and barriers to implementation
- Economic and non-economic losses and damages
- Policy contexts & institutional arrangements
- Approaches of categorizations and metrics to assess losses and damages



Finance (Ch 6)

- Macroeconomic context, international financial architecture and commitments
- Adaptation and losses and damages financing needs, current flows, instruments, effectiveness, access and approaches to accelerate
- Public and private investments at domestic and international levels
- Equitable financial schemes related to financial stability, sustainability and financial risk management
- Consistency of finance flows with a pathway towards climate resilient development

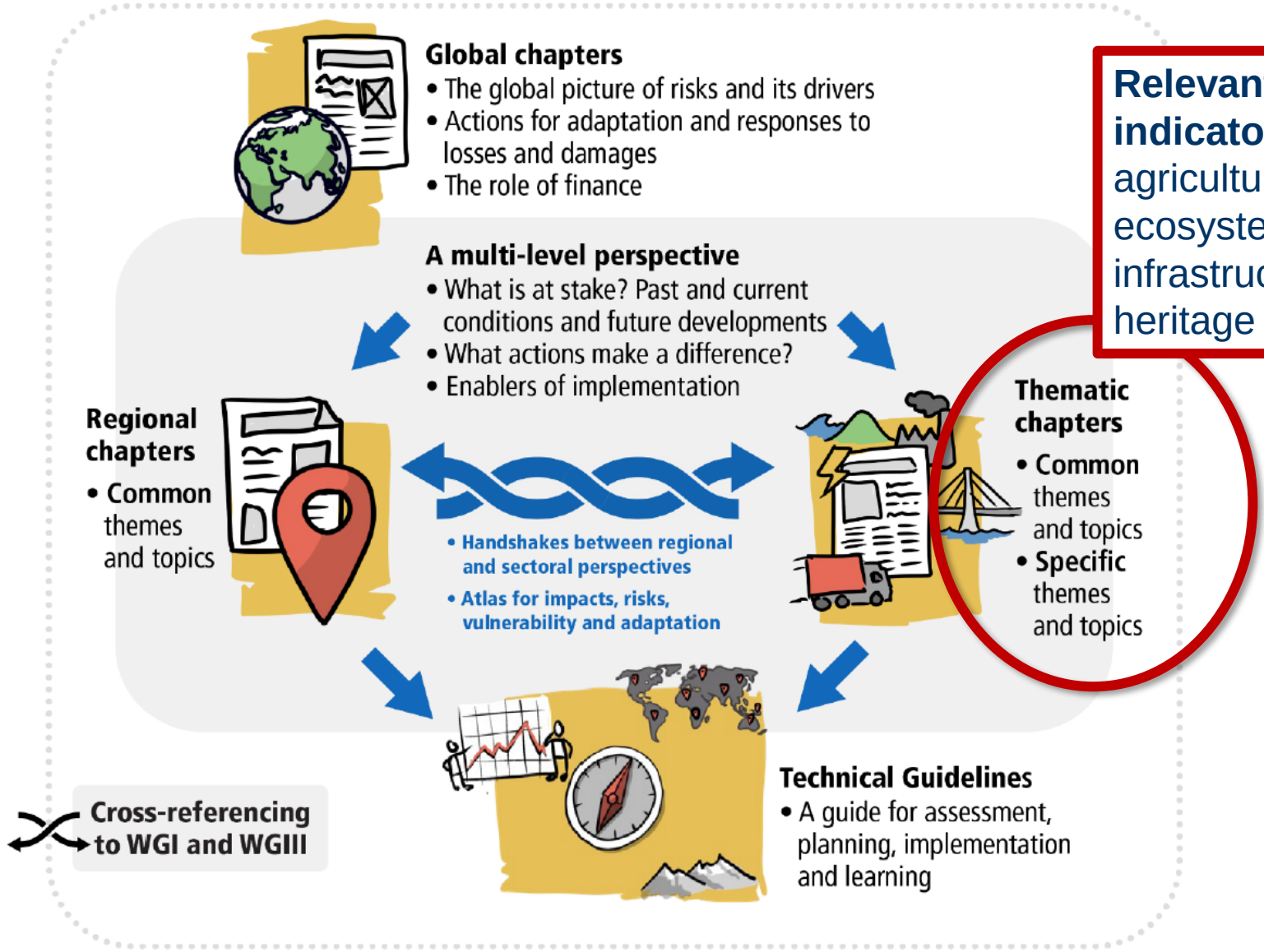




Spotlight on some emerging topics in AR7…

… and entry-points for a GGA-informed report

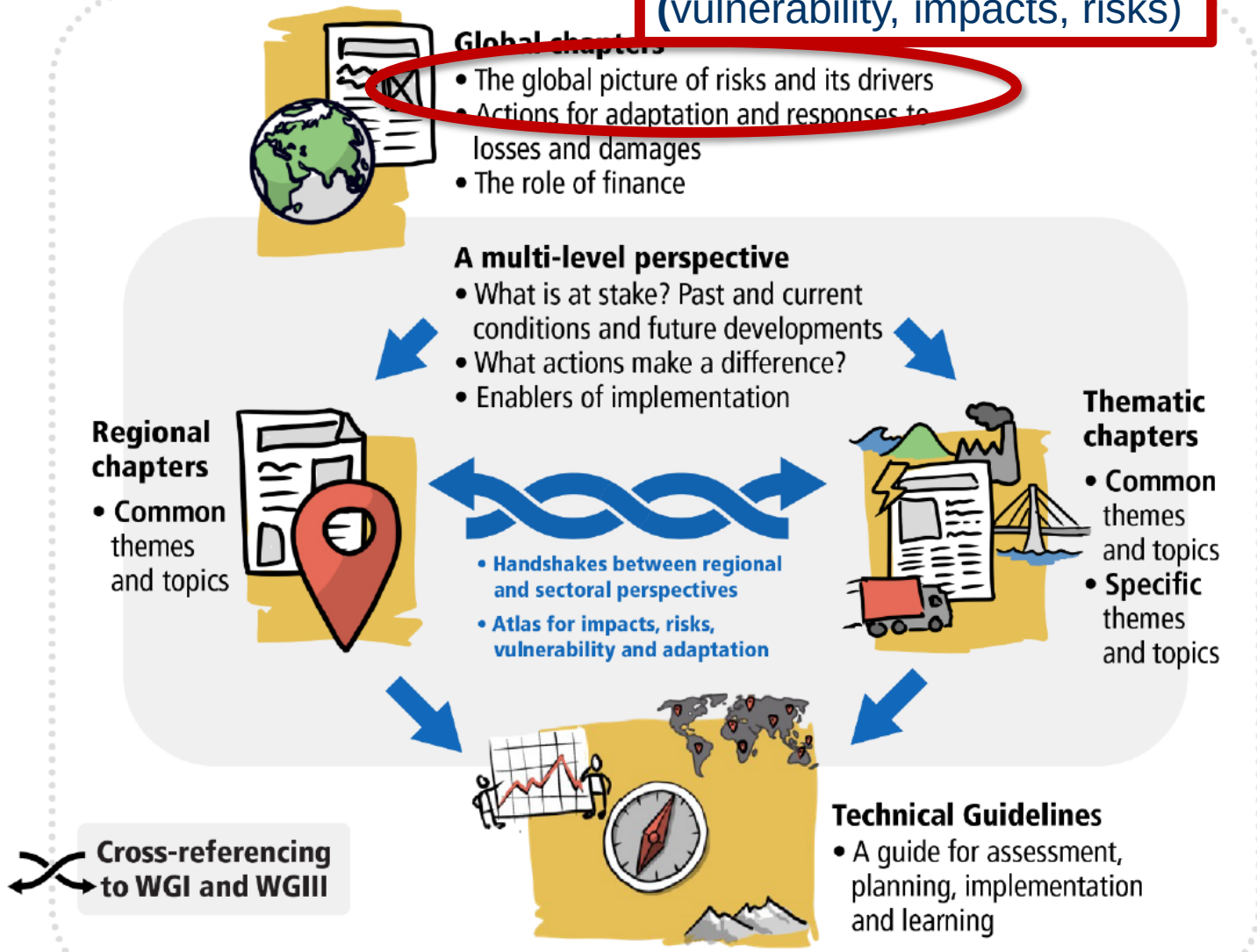
AR7 outline



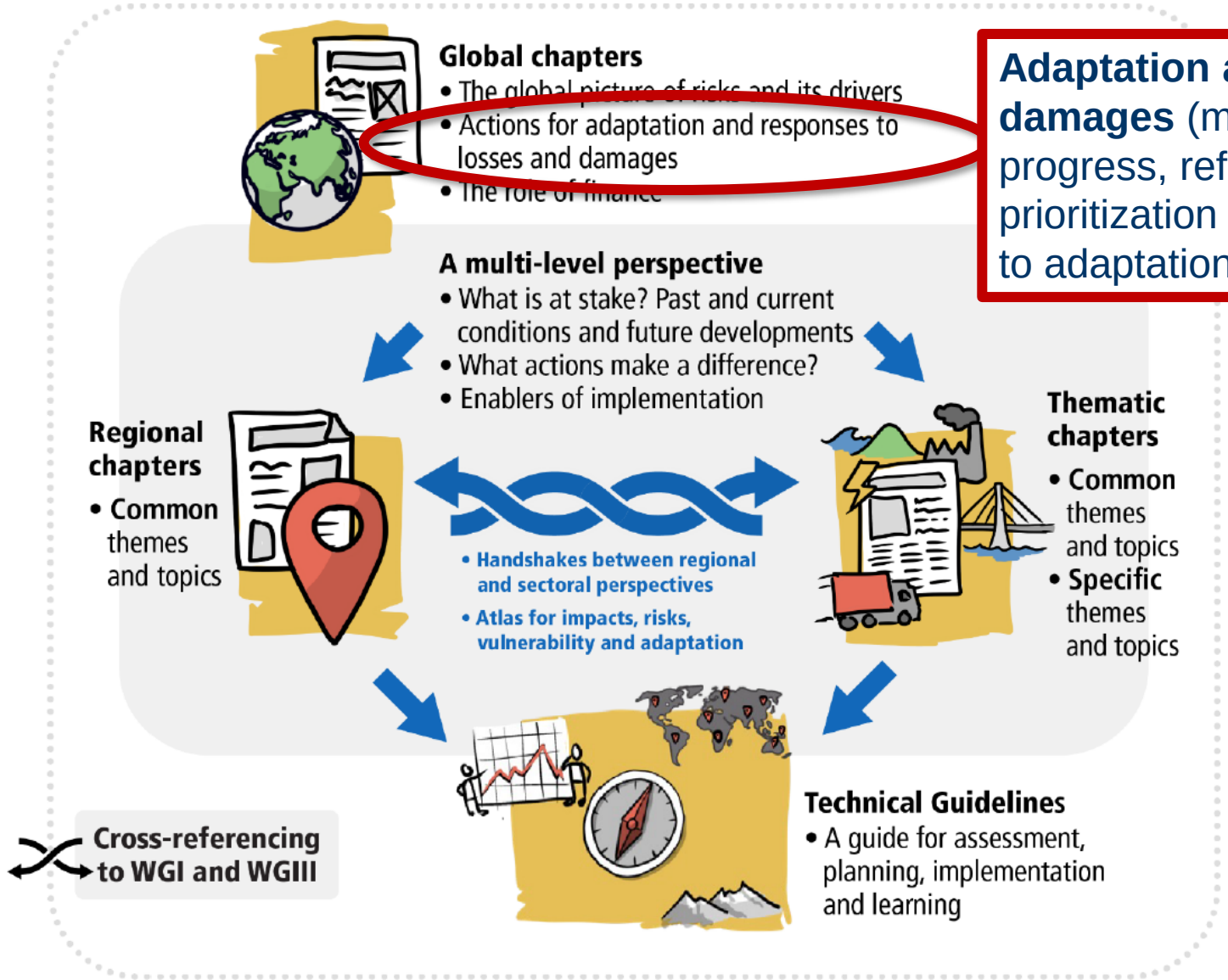
Relevant theme-specific indicators (water, agriculture, health, ecosystems and biodiversity, infrastructure, cultural heritage and poverty)

AR7 outline

Metrics for monitoring
(vulnerability, impacts, risks)



AR7 outline



Adaptation and losses and damages (monitoring progress, refinement & prioritization options, limits to adaptation)

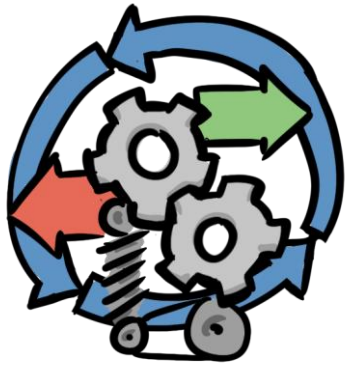
AR7 outline

Finance (metrics for investment needs and project impacts)

IPCC Technical Guidelines on Assessing Climate Change Impacts and Adaptation

Section 1
Introduction

- Rationale, Framing and Purpose



Section 2
Adaptation in practice

- Key principles and concepts
- Context scan: governance, levels of adaptation action, societal development
- Stand-alone vs continuous adaptation

Section 3
Technical Guidelines

1. Scoping and goal setting
2. Risk assessment
3. [illegible]
4. [illegible]
5. Monitoring and evaluation

Tools, building blocks and enablers

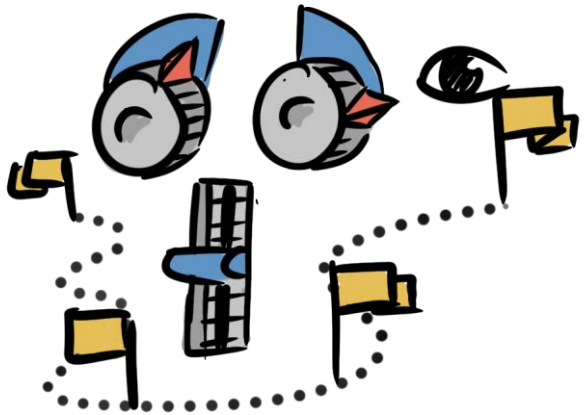
- Methodologies, tools, metrics & indicators
- Co-design approaches
- Services & data
- Financing adaptation planning
- Governance and regulatory enablers

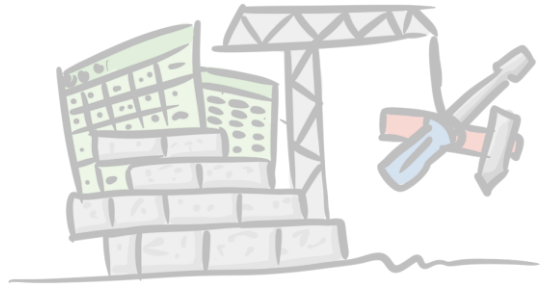
Design principles of metrics (baselines, measurability, old/new indicators, transparency, SDG alignment …)

Contextualizing indicators ((sub)national reporting, tiered indicator structures)

IPCC Technical Guidelines for Assessing Climate Change Impacts and Adaptation

Supporting an **iterative process** of refining and prioritizing adaptation options





Section 1
Introduction

- Rationale, Framing and Purpose

Section 2
Adaptation in practice

- Key principles and concepts
- Context scan: governance, levels of adaptation action, societal development
- Stand-alone vs continuous adaptation

Section 3
Technical Guidelines

1. Scoping and goal setting
2. Risk assessment
3. Planning
4. Implementation
5. Learning, monitoring and evaluation

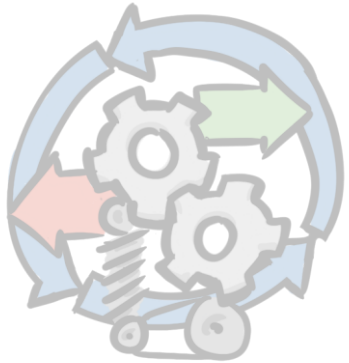
Section 4
Tools, building blocks and enablers

- Methodologies, tools, metrics & indicators
- Co-design approaches
- Services & data
- Financing adaptation planning
- Governance and regulatory enablers

IPCC Technical Guidelines for Assessing Climate Change Impacts and Adaptation

Section 1
Introduction

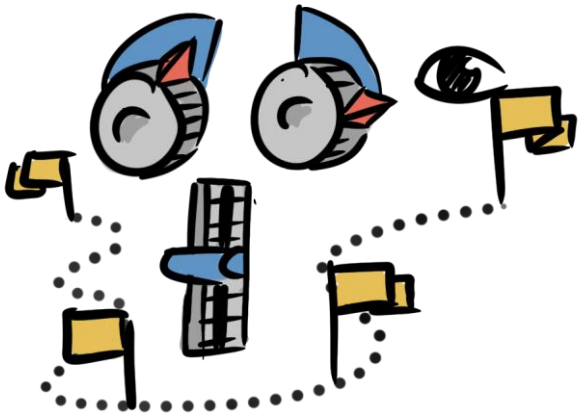
- Rationale, Framing and Purpo



Section 2
Adaptation in practice

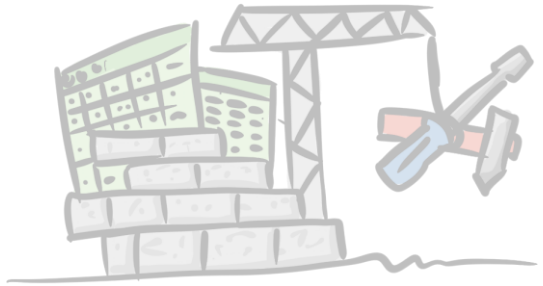
- Key principles and
- governance, levels of adaptation action, societal development
- Stand-alone vs continuous adaptation

Implementation of **MEL**



Section 3
Technical Guidelines

1. Scoping and goal setting
2. Risk assessment
3. Planning
4. Implementation
5. Learning, monitoring and evaluation



Section 4
Tools, building blocks and enablers

- Methodologies, tools, metrics & indicators
- Co-design approaches
- Services & data
- Financing adaptation planning
- Governance and regulatory enablers

IPCC Technical Guidelines for Assessing Climate Change Impacts and Adaptation

Section 1
Introduction

- Rationale, Framing and Purpose

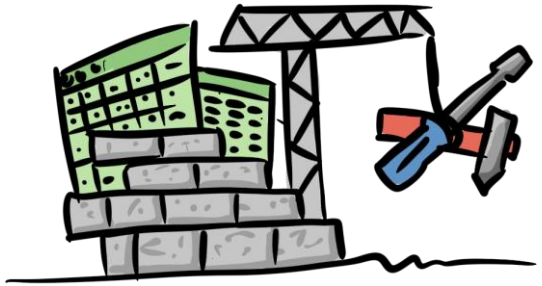
Section
Adaptat

- Key p… concepts
- Context scan: governance, levels of adaptation action, societal development
- Stand-alone vs continuous adaptation

…delines

…d goal setting
2. Risk assessment
3. Planning
4. Implementation
5. Learning, monitoring and evaluation

Data collection methodologies
Tools and processes for indicator development, co-development approaches



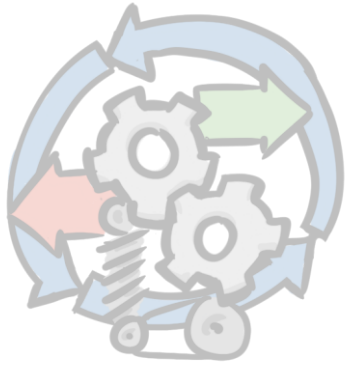
Section 4
Tools, building blocks and enablers

- Methodologies, tools, metrics & indicators
- Co-design approaches
- Services & data
- Financing adaptation planning
- Governance and regulatory enablers

IPCC Technical Guidelines for Assessing Climate Change Impacts and Adaptation

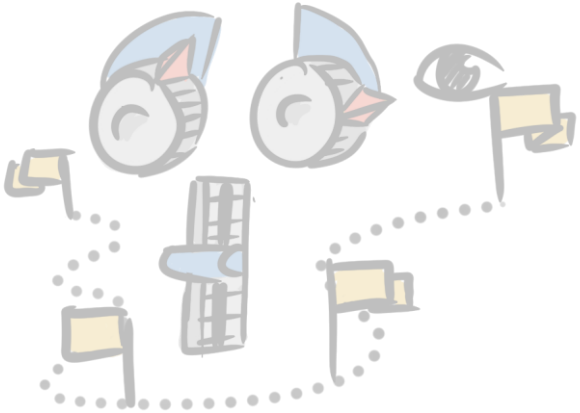
Section 1
Introduction

- Rationale, Framing and Purpose



Section 2
Adaptation in practice

- Key principles concepts
- Context scan: governance, le adaptation act societal develo
- Stand-alone vs continuous adaptation



Section 3
Technical Guidelines

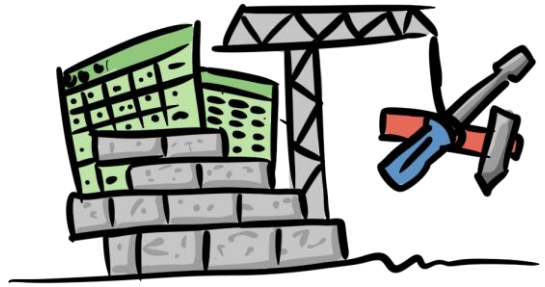
d goal

sment

tion

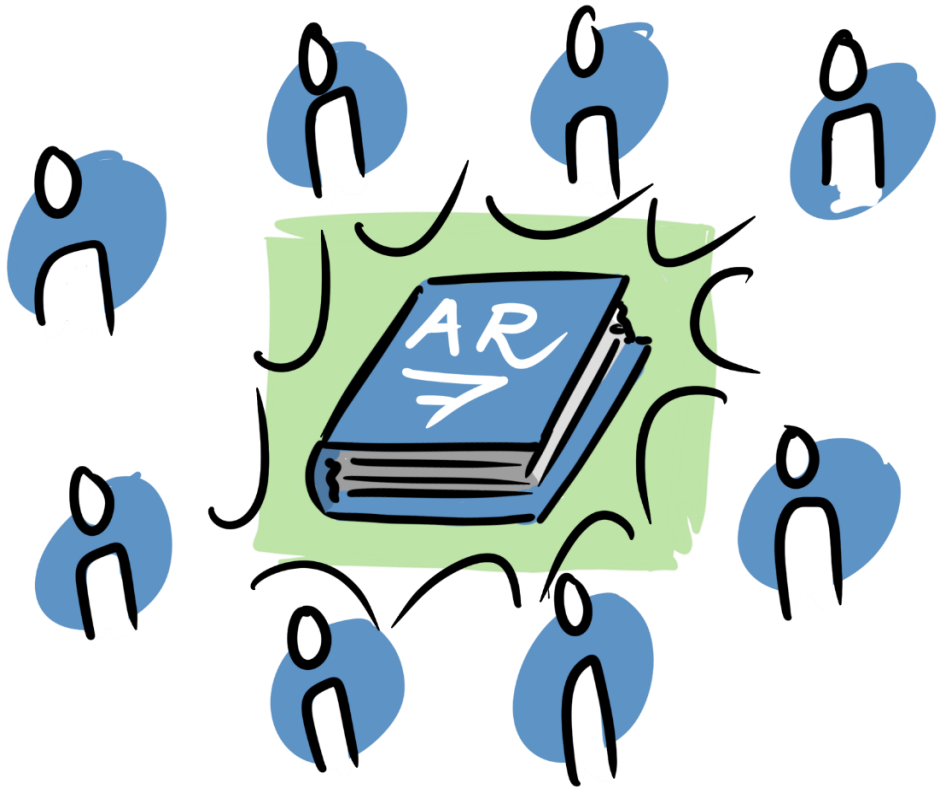
monitoring and evaluation

Capacity building for indicator measurement
Barriers, resources, common principles and sectoral considerations



Section 4
Tools, building blocks and enablers

- Methodologies, tools, metrics & indicators
- Co-design approaches
- Services & data
- Financing adaptation planning
- Governance and regulatory enablers



Ways to engage with IPCC Working Group II

Expert Meetings and Technical Workshops
with WGII involvement

IPCC Expert Meetings and Workshops

- Adaptation Metrics, Methodologies and Indicators (March 2026)
- New and Extended Methods of Assessment in the AR7 (workshop – early 2026)

Possible co-sponsored technical workshops

- Health (Feb 2026)
- Food and Agriculture (mid 2026)

Timeline of the 7th Assessment Cycle (AR7)

★ **Special Report** on Climate Change and Cities (March 2027)

★ **Methodology Report** on Short-lived Climate Forcers (second half of 2027)

★ **Methodology Report** on Carbon Dioxide Removal Technologies, Carbon Capture Utilization and Storage (by end of 2027)

★ **Seventh Assessment Report** Working Group I, II, & III contributions

★ **IPCC Technical Guidelines** for Assessing Climate Change Impacts and Adaptation Including Indicators, Metrics and Methodologies

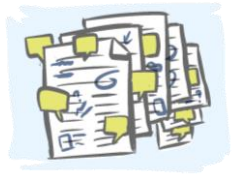
★ **Synthesis Report** (by late 2029, after completion of the Working Group contributions)

IPCC elected new Chair and Bureau (July 2023)

IPCC decided on products and workplan for the seventh cycle (January 2024)

2023 — 2024 — 2027 — (tbc) — 2029

Oct 2025 to completion



Opportunities to review

First, Second and Final Drafts

Networks of experts can coordinate reviews

★ *AR7 products*

Thank you and follow our journey online!

@prof.bartvdhurk
Bart van den Hurk

@prof.winstonchow
Winston Chow

Scan here to join
our mailing list

Working Group II
Co-Chairs and Bureau Members

Co-Chairs


Winston Chow


Bart van den Hurk

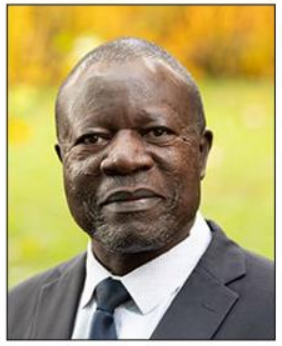
Vice Chairs

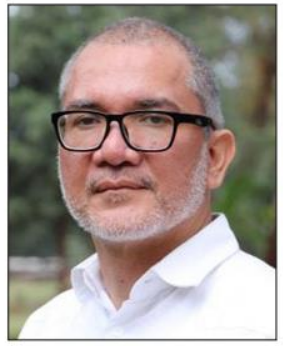

Adelle Thomas

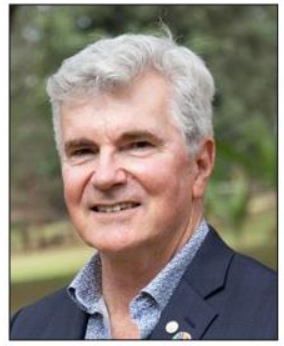

Fatima Denton

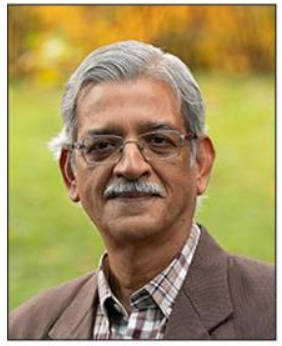

Laura Gallardo


Zinta Zommers


Cromwel Lukorito


Carlos Méndez


Mark Howden


Raman Sukumar

Working Group II Technical Support Unit (WG II TSU)

Melinda Tignor

Head of TSU-Working Group II

NETHERLANDS

Theresa Wong

Head of Science

SINGAPORE

Andrew Emmanuel Okem

Head of Science

NETHERLANDS

Noëmie Leprince-Ringuet

Head of Operations

FRANCE

Samantha Thian

Deputy Head of Operations

SINGAPORE

Azra Alikadic

Science Officer

NETHERLANDS

Mukesh Kumar Gupta

Science Officer

SINGAPORE

Sherine El-Wattar

Science Network Officer

NETHERLANDS

Woo Qiyun

Senior Communications Manager

SINGAPORE

Thijs Balder

Graphics & Storyline Design Officer

NETHERLANDS

Wahab Sahari

Information Technology Officer

SINGAPORE

Yugdeep Bangar

Artificial Intelligence Officer

NETHERLANDS

Chua Xin Rong

Science Officer

SINGAPORE

Lucy Monckton

Administrative Assistant

NETHERLANDS