

# What is the IPCC and how to engage?

Diana Ürge-Vorsatz  
IPCC Vice-Chair

*YOUNGO discussion, March 11<sup>th</sup>, 2024*

# The role of the IPCC is ...

**“... to assess on a comprehensive, objective, open and transparent basis the scientific, technical and socio-economic information relevant to understanding the scientific basis of risk of human-induced climate change, its potential impacts and options for adaptation and mitigation.”**

**“IPCC reports should be neutral with respect to policy, although they may need to deal objectively with scientific, technical and socio-economic factors relevant to the application of particular policies.”**

***Principles Governing IPCC Work, paragraph 2***

***Source: <http://www.ipcc.ch/pdf/ipcc-principles/ipcc-principles.pdf>***

***“Policy relevant, but not policy prescriptive”***

1990

SO, THIS CLIMATE CHANGE THING COULD BE A PROBLEM...



1995

CLIMATE CHANGE: DEFINITELY A PROBLEM.



2001

YEP, WE SHOULD REALLY BE GETTING ON WITH SORTING THIS OUT PRETTY SOON...



2007

LOOK, SORRY TO SOUND LIKE A BROKEN RECORD HERE...



2013

WE REALLY HAVE CHECKED AND WE'RE NOT MAKING THIS UP.



2019

IS THIS THING ON?



ipcc  
INTERGOVERNMENTAL PANEL ON  
climate change

KUPRM.  
28/9/13

# IPCC Reports

# 6

## Assessment Reports

1990, 1995, 2001, 2007, 2013-14, 2021-23

# 14

## Special Reports

1997, 1999, 2000, 2005, 2011, 2012, 2018, 2019

1992 Supplementary report  
1994 Special report

# 9

## Guidelines for national GHG inventories, good practice guidance

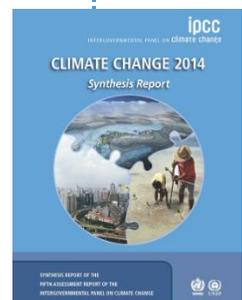
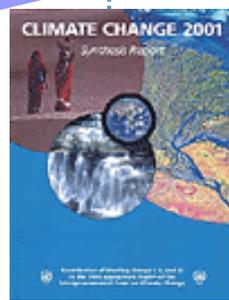
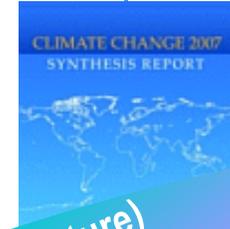
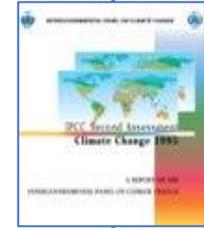
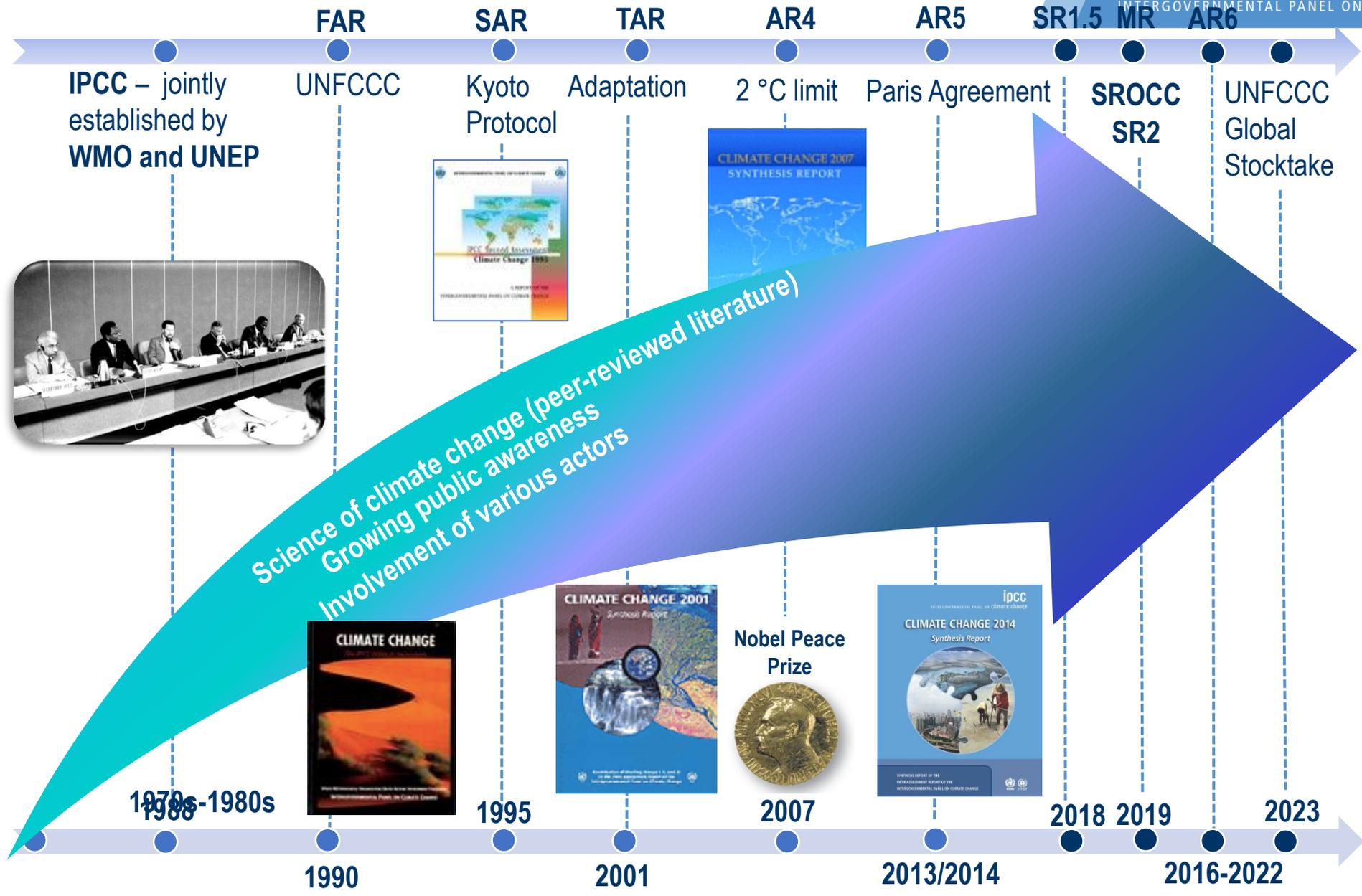
1995, 1996, 2000, 2003, 2006, 2013, 2019

# 6

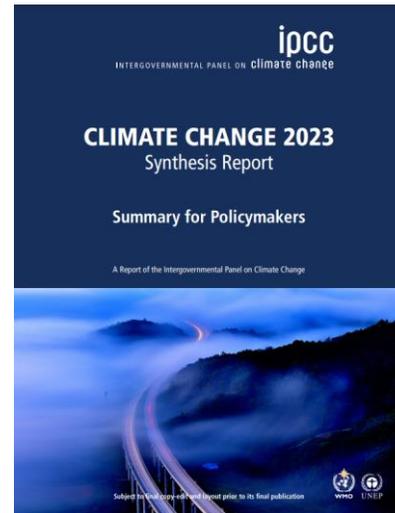
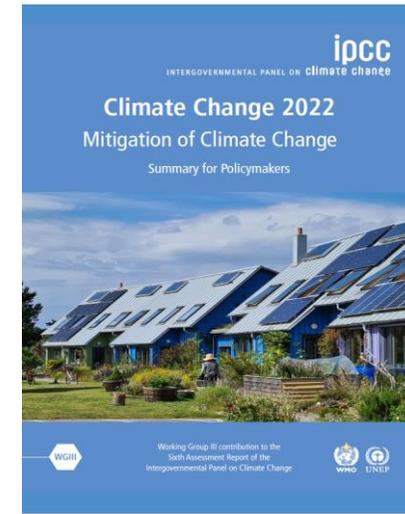
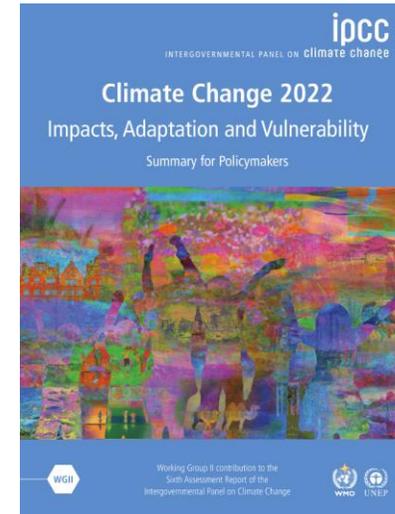
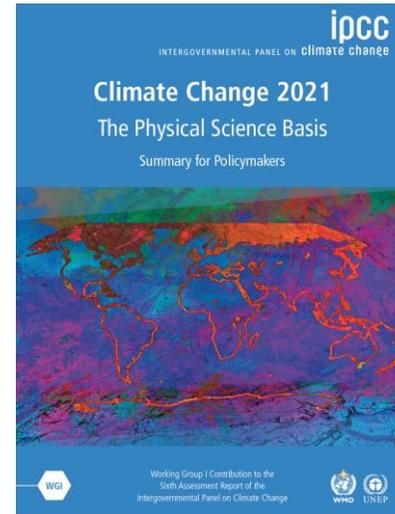
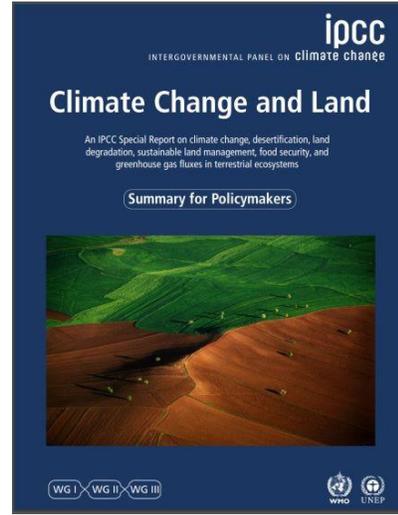
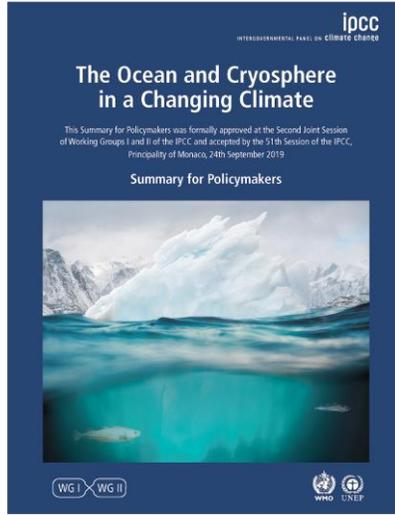
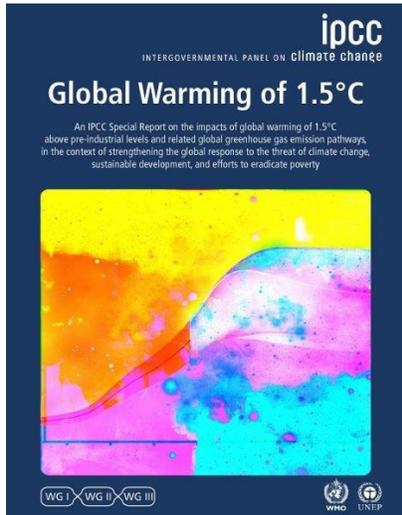
## Technical Papers

1996-2008





# The 6<sup>th</sup> Assessment Cycle (AR6) October 2015 – July 2023



# Sixth Assessment Report

## Statistical background

### Working Group I

- Author team (Coordinating Lead Authors, Lead Authors, Review Editors)	234
- Review comments	
First order draft (experts)	23,462
Second order draft (experts and governments)	51,387
Final draft (governments)	3,158
- Number of citations	over 14,000

### Working Group II

- Author team (Coordinating Lead Authors, Lead Authors, Review Editors)	270
- Review comments	
First order draft (experts)	16,348
Second order draft (experts and governments)	40,293
Final draft (governments)	5,777
- Number of citations	over 34,000

### Working Group III

- Author team (Coordinating Lead Authors, Lead Authors, Review Editors)	278
- Review comments	
First order draft (experts)	21,703
Second order draft (experts and governments)	32,555
Final draft (governments)	4,954
- Number of citations	over 18,000



*[the Panel] expresses its appreciation and gratitude to the IPCC Bureau members and all those involved in preparing the reports in the sixth assessment cycle for their excellent work and dedication including during the extraordinary circumstances of the COVID-19 pandemic.*

## Why is the IPCC model unique?

- Voluntary work
- No funding accepted except for government
- Very thorough COI procedures, COI management
- Transparency, diversity, inclusivity
- knowledge co-production process
- Extremely thorough review procedure
- Policy relevant but not policy prescriptive

# Emphasis on IPCC Seventh Assessment Cycle



4. In adopting its programme of work it emphasized that the IPCC seventh assessment cycle will be robust, comprehensive, accurate, inclusive and use diverse literature and knowledge sources including drawing on Indigenous Peoples' Knowledge and Local Communities' Knowledge.

Three traditional Working Group ( WG) contributions to the AR7:

- Working Group I report on the **Physical Science Basis**
- Working Group II report on **Impacts, Adaptation and Vulnerability**
- Working Group III report on **Mitigation of Climate Change**

**Synthesis Report (SYR)** based on key findings from the three WGs

Special Report on **Climate Change and Cities**

Methodology report on **Short-lived Climate Forcers**

Methodology report **Carbon Dioxide Removal** Technologies, Carbon Capture Utilization and Storage

An **update of the 1994 IPCC Technical Guidelines on impacts and adaptation**, in conjunction with the Working Group II report and published as a separate product.

# Seventh Assessment Cycle (timelines)



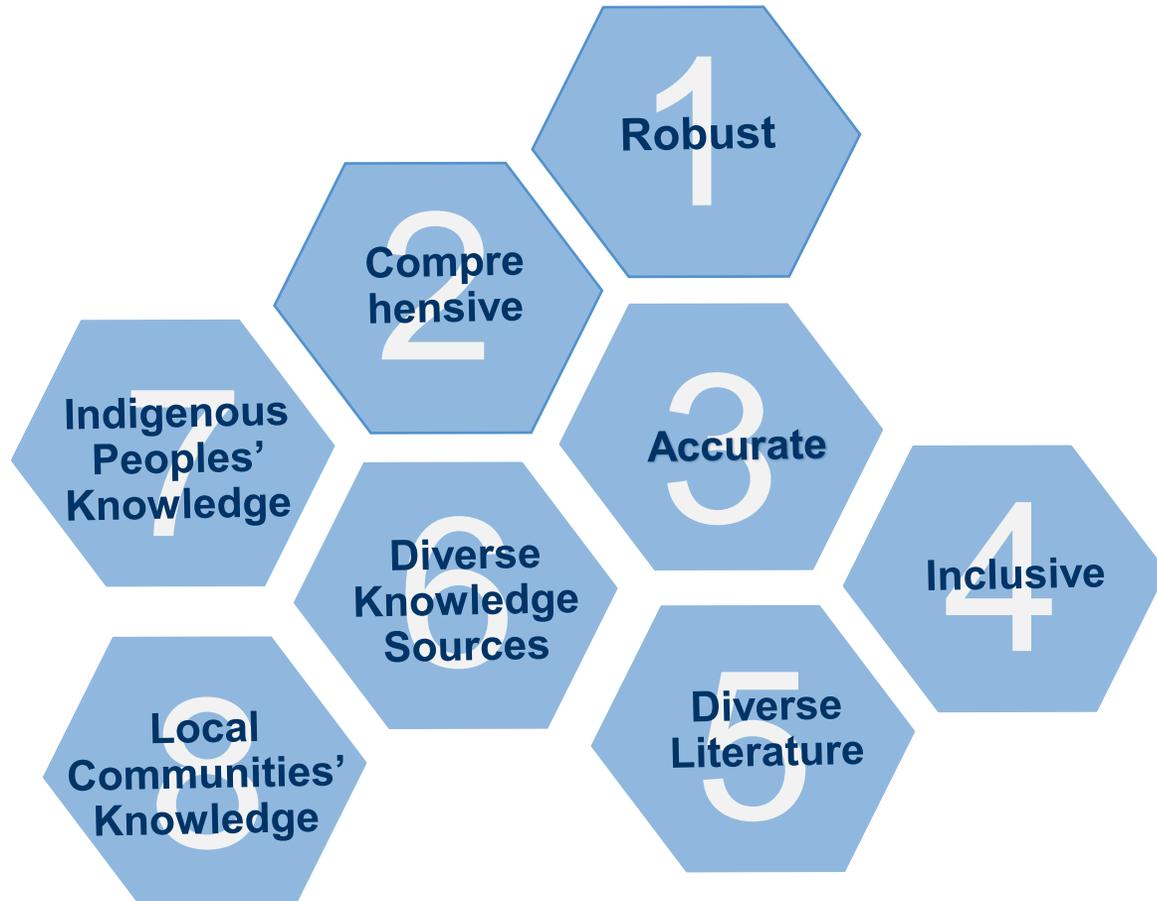




8. It requested the IPCC Bureau to consider options for Expert Meetings and Workshops and recognized the importance and value of these.

- **Decision IPCC-LX-9 emphasizes the importance and value of Expert Meetings and Workshops.**
- **The IPCC Bureau is requested to consider options for these events during the seventh assessment cycle.**

# Emphasis on IPCC Seventh Assessment Cycle



## Expert meeting on Gender, Inclusivity and Diversity in IPCC

### October 2024, Canada.

# Special Report on Climate Change and Cities (SR-CITIES)

This report will focus specifically on the interactions between climate change and urban areas, addressing topics such as:

The impacts of climate change on cities

Adaptation strategies for cities

Mitigation measures in urban areas

The role of cities in climate action



6. It confirmed that a Special Report on Climate Change and Cities will be provided in early 2027 and that the Task Force on National Greenhouse Gas Inventories (TFI) will provide a Methodology Report on Short-lived Climate Forcers by 2027.

# Special Report on Climate Change and Cities (SR-CITIES)

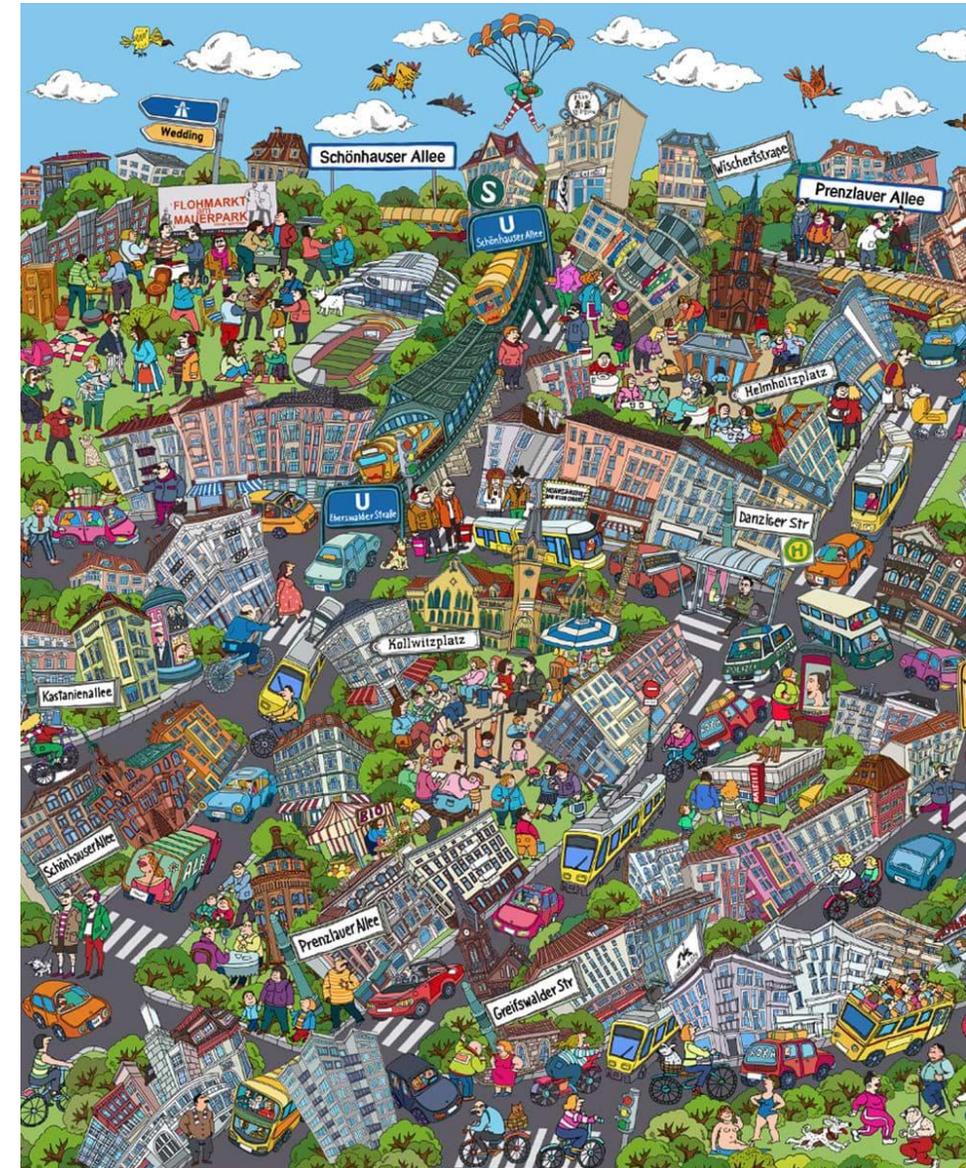
## Key Focus Areas

**Impacts:** How climate change affects urban environments, infrastructure, and populations.

**Adaptation:** Strategies for enhancing resilience and protecting urban residents and infrastructure.

**Mitigation:** Measures to reduce greenhouse gas emissions and promote sustainable urban development.

**Role of Cities:** Highlighting the importance of local action and governance in addressing climate change and showcasing successful examples of city-level climate initiatives.



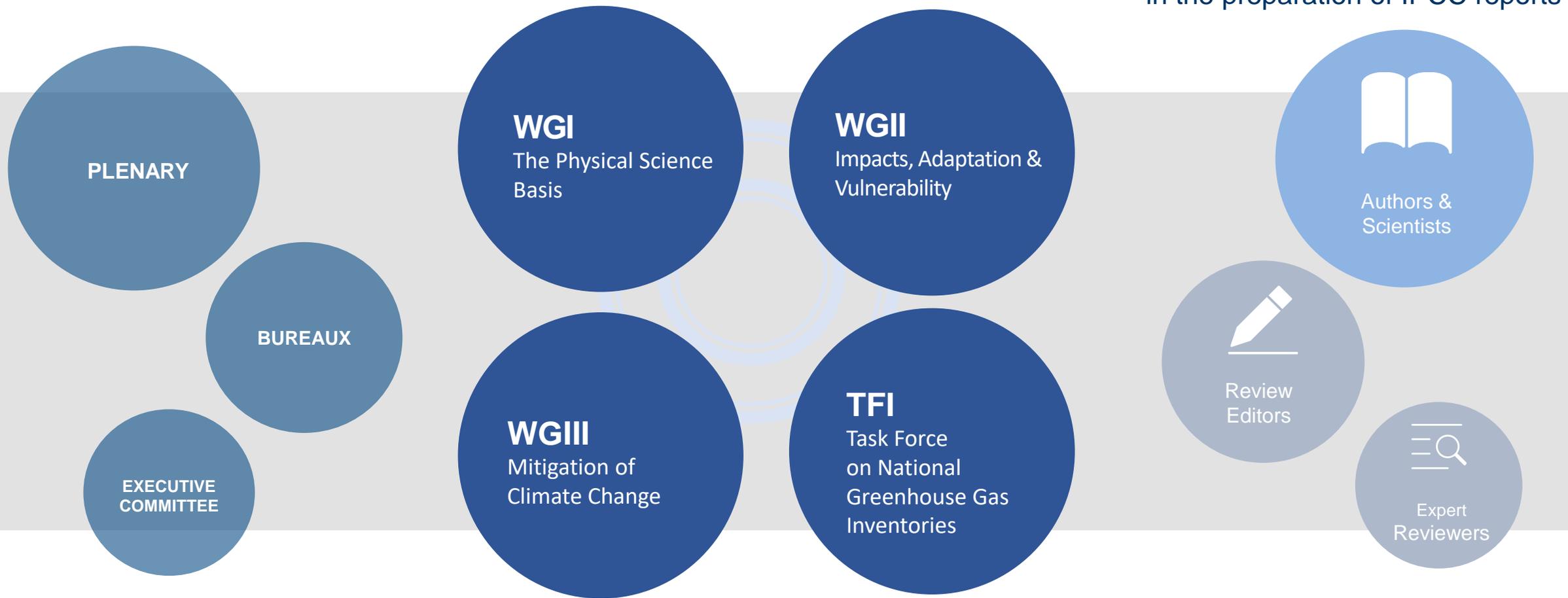
# How to engage?



# Structure and Report Process

## Intergovernmental Panel

195 member States appointing National Focal Points



Hundreds of **scientists and experts from around the world** are involved in the preparation of IPCC reports



### Scoping

The outline is drafted and developed by experts nominated by governments and observer organizations



### Approval of Outline

The Panel then approves the outline



### Nomination of authors

Governments and observer organizations nominate experts as authors



### Government and Expert Review - 2nd Order Draft

The 2nd draft of the report and 1st draft of the Summary for Policymakers (SPM) is reviewed by governments and experts



### Expert Review - 1st Order Draft

Authors prepare a 1st draft which is reviewed by experts



### Selection of authors

Bureaux select authors



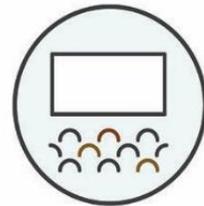
### Final draft report and SPM

Authors prepare final drafts of the report and SPM which are sent to governments



### Government review of final draft SPM

Governments review the final draft SPM in preparation for its approval



### Approval & acceptance of report

Working Group/Panel approves SPMs and accepts reports



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Peer reviewed and internationally available scientific technical and socio-economic literature, manuscripts made available for IPCC review and selected non-peer reviewed literature produced by other relevant institutions including industry



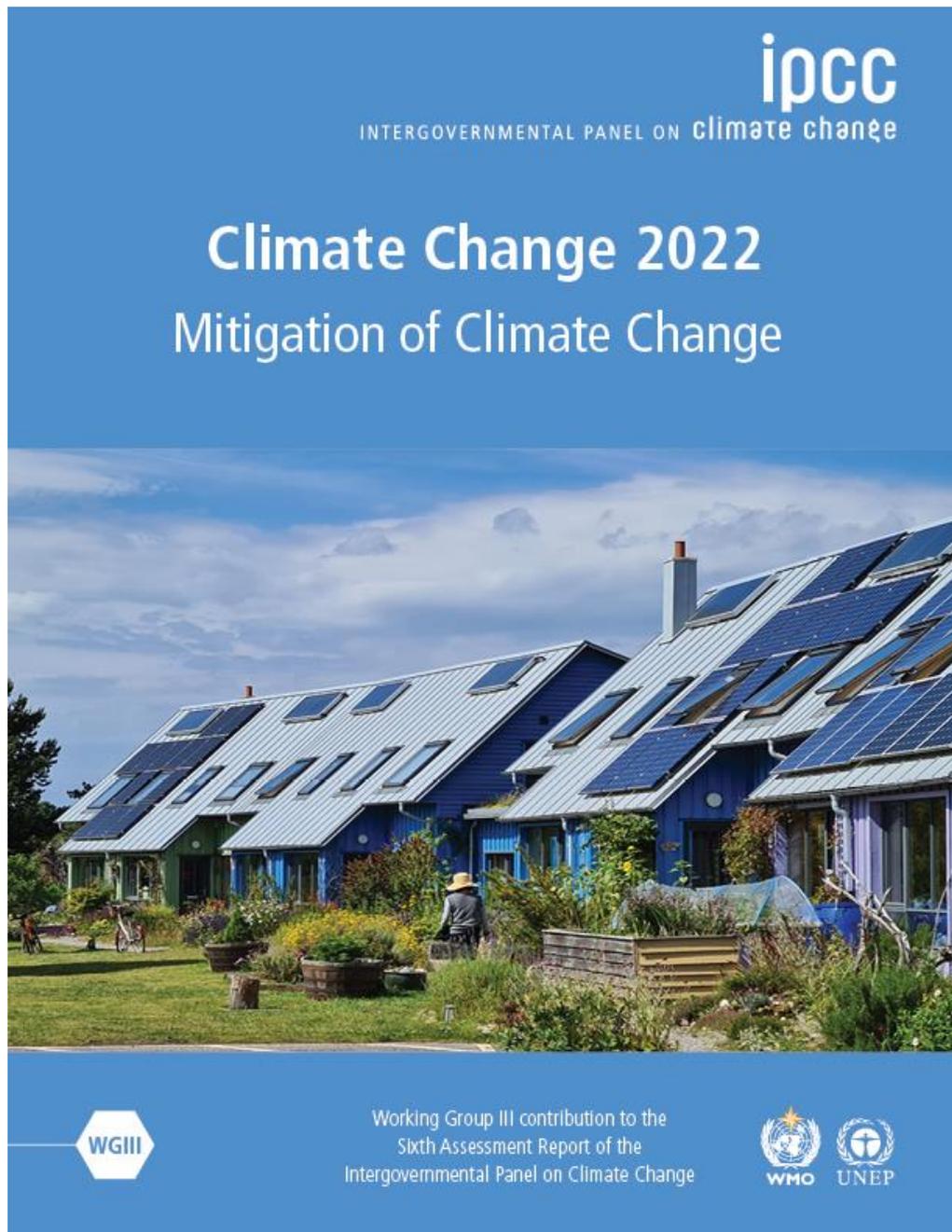
### Publication of report

## Opportunities for engagement

- Author (watch out for calls for nominations)
  - For SRCCC, after P61 in July
- Expert reviewer
- Review Editor (same nomination as for authors)
- Chapter scientists
- **SRCCC: pre-scoping webinars**
- Publishing scientific literature that can be used in the reports
  - E.g. on cities and climate change
- Participant in expert meetings

# Further opportunities for engagement

- TSU staff (WGs are hiring)
- Hosting a Lead Author or Expert meetings
- Organising outreach events
- “translating” our scientifically complex materials for diverse stakeholder communities
- Translating our products (or chapters, special topic collections) into native languages
- Becoming an observer organization
- Following us on social media, reposting our messages, announcements to other languages
- **IDEAS??**



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INTERGOVERNMENTAL PANEL ON climate change

# Climate Change 2022

## Mitigation of Climate Change



Working Group III contribution to the  
Sixth Assessment Report of the  
Intergovernmental Panel on Climate Change



SEVENTH ASSESSMENT CYCLE

ipcc  
INTERGOVERNMENTAL PANEL ON climate change



***Thank you for your  
attention***  
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**Diana Ürge-Vorsatz**



# THANK YOU FOR YOUR ATTENTION

## STAY IN TOUCH



ipcc.ch



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## STAY CONNECTED



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# Timeline for reports and expert meetings

- OCTOBER 2024** Expert meeting on Gender, Inclusivity and Diversity in IPCC
- IN EARLY 2027** Special Report on Climate Change and Cities
- BY 2027** TFI will provide a Methodology Report on short-lived Climate Forces by 2027
- END OF 2027** Expert Meeting on Carbon Dioxide Removal Technologies, Carbon Capture Utilization and Storage – Methodology Report (TFI)
- 2028** Update on 1994 Technical Guidelines on Impacts, Adaptation and Vulnerability (part of WGII)
- LATE 2029** “A Synthesis Report for the seventh assessment cycle will be produced by late 2029, after the completion of Working Group reports.”

Emphasis on inclusivity in representation and literature assessment.

Products to remain policy relevant, neutral, robust, and comprehensive.

Procedures include preparation, review, acceptance, adoption, approval, and publication.

Working Group contributions and the Synthesis Report will adhere to IPCC report procedures.



3. It has considered the invitations from Decisions 1/CMA5 para 184 (Global Stocktake) and 3/CMA.4, paragraph 21 (Global Goal on Adaptation).



# Acknowledgment and Significance



5. It thanked the IPCC Bureau and Secretariat for providing a synthesis of Member countries views on products for the seventh assessment cycle in document IPCCLX/INF. 6 and noted that topics identified for proposed IPCC Special Reports in document IPCC-LX/INF.6 and IPCC-LX/INF.7 are important and should be where possible addressed in the Seventh Assessment Report (AR7) suite of products.

- This point acknowledges the IPCC Bureau and Secretariat for compiling Member countries' views (IPCCLX/INF.6) for the seventh assessment cycle.
- IPCCLX/INF.6 likely captured diverse perspectives and priorities, aiding in upcoming IPCC reports.
- The decision recognizes the importance of proposed Special Reports (IPCCLX/INF.6 and IPCCLX/INF.7) and emphasizes their integration into the Seventh Assessment Report (AR7) suite of products.
- This highlights the IPCC's commitment to addressing key issues and ensuring comprehensive coverage in the assessment process

# Expert Meetings

## Highlighted key points

- Recognition of Expert Meetings' importance in providing input for IPCC reports.
- Request for the IPCC Bureau to consider options for Expert Meetings.
- Emphasis on inclusivity and diverse perspectives to ensure robust outcomes.
- Expert Meetings foster in-depth discussions, enabling knowledge exchange among participants.
- They contribute to the quality and relevance of IPCC reports by incorporating the latest scientific findings and diverse viewpoints.



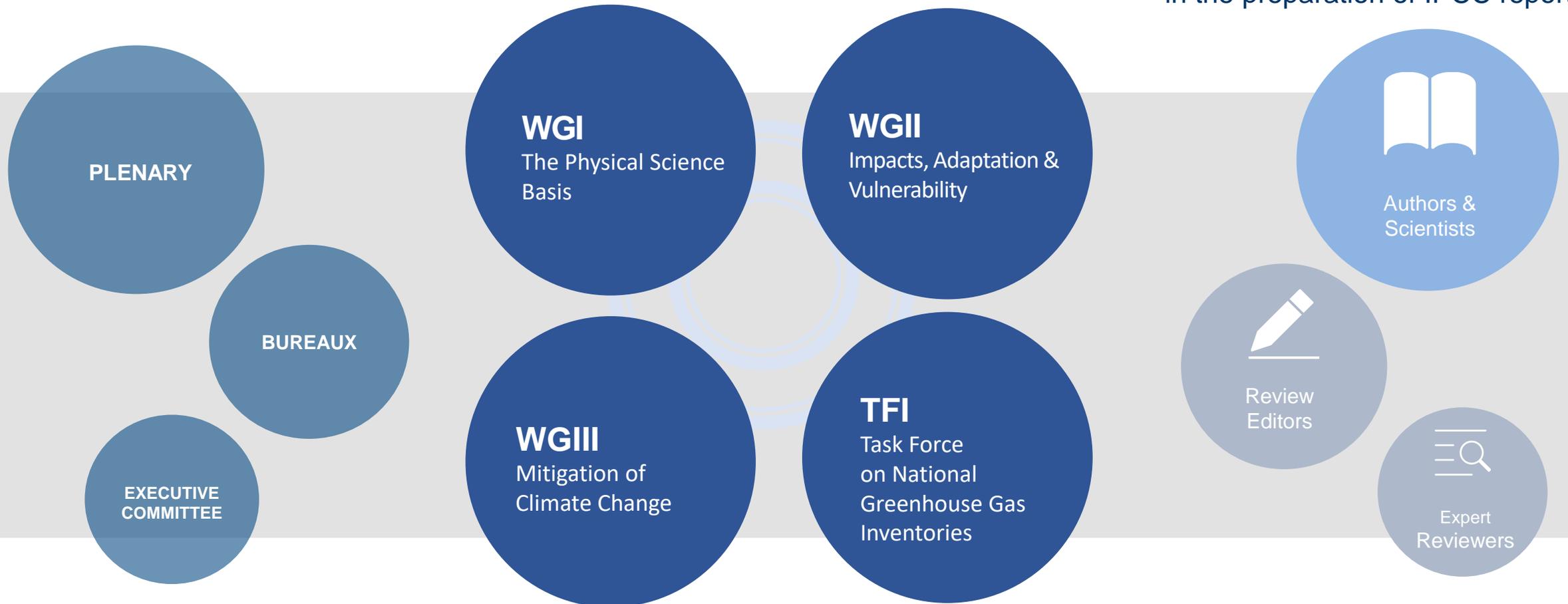
7. The TFI will hold an Expert Meeting on Carbon Dioxide Removal Technologies, Carbon Capture Utilization and Storage and provide a Methodology Report on these by the end of 2027. This will be developed with the Methodology Report on Short Lived Climate Forcers.

# Structure and Report Process

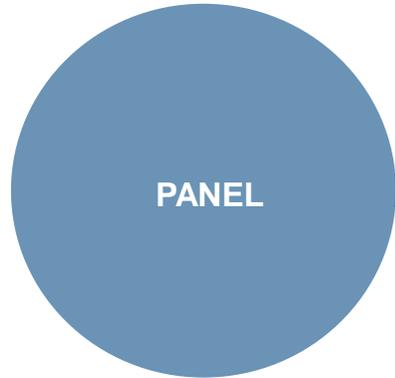
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## Structure and Report Process

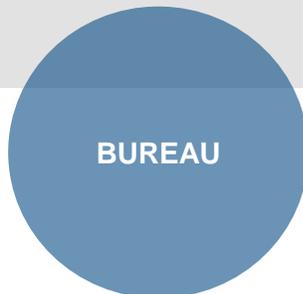


During the seventh assessment cycle the IPCC will provide a comprehensive Assessment Report...



9. The Panel decides that during the seventh assessment cycle the IPCC will provide a comprehensive Assessment Report consisting of three Working Group contributions in the following sequence unless the Panel decides otherwise: a. WG I – The Physical Science Basis b. WG II – Impacts, Adaptation and Vulnerability c. WG III – Mitigation of Climate Change and requests the Bureau to prepare a document outlining the month and year of delivery on the basis of an AR7 strategic plan, taking into account the different views expressed in the IPCC-60 and paragraph 3 of this decision, for the delivery of these 10 reports in a timely and policy relevant manner and present it to the Panel at its next meeting for consideration and decision.

...consisting of three Working Group contributions



Prepare a document outlining the month and year of delivery on the basis of an AR7 strategic plan

# Gender Diversity and Inclusivity

- Gender diversity and inclusivity are essential for addressing climate change challenges effectively.
- Decision IPCC-LX-3 appoints new Board of Trustees members with diverse gender representation and citizenship.
- Decision IPCC-LX-9 emphasizes inclusivity in the assessment process of the seventh assessment cycle.
- Using diverse literature and knowledge sources ensures comprehensive and accurate assessments.
- Promoting gender diversity and inclusivity enhances the quality, relevance, and credibility of IPCC reports and recommendations.

Three traditional Working Group ( WG) contributions to the AR7:

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# Seventh Assessment Cycle (timelines)



# History | Evolution of the IPCC



1988

**IPCC** jointly established by WMO and UNEP

1990

**First Assessment Report**  
Led to creation of UNFCCC in 1994

1995

**Second Assessment Report**  
Kyoto Protocol

2001

**Third Assessment Report**  
Focus attention on adaptation to climate change

2007

**Fourth Assessment Report**  
2°C Limit  
Nobel Peace Prize

2014

**Fifth Assessment Report**  
Paris Agreement - 2015

2023

**Sixth Assessment Report**  
First Global Stocktake - COP28

GROWTH IN SCIENTIFIC RESEARCH  
INCREASE IN STAKEHOLDER INVOLVEMENT  
GROWING PUBLIC AWARENESS



## Broad research agendas exist to pave the way for novel demand-side knowledge for strong mitigation impacts in AR7

- What policies can affect the top 10% and 1% to reduce their energy demand?
  - Sufficiency
- MORE FOCUS ON COSTS
  - How do demand-focused scenario costs compare to those of alternatives?
- how to implement systemic/infrastructural change? Especially in cities? (how to kick-start shared mobility transitions?)
- What sectoral policies can shift demand towards re-... and shared systems than new individual focused ones?
- Costs and potentials, co-benefits?
  - What are the critical mineral and other resource benefits of a low-demand scenario as compared to the supply-focused ones?
  - How to harness adaptation benefits through demand-side policies? (heat resilience&lower AC, less vulnerable infrastructure, etc)
- ?

# Lessons Learned from AR6

## **Quantity, Brevity and Type of Products .**

- Consider fewer and more focused reports for emerging science and policy relevant
- Evaluating different report formats and discussing the need for new product types.
- Considering expert meetings and workshops to identify and fill gaps in scientific knowledge and data.

## **Authorship and Diversity:**

- Addressing authorship ethics, selection criteria, and management to ensure regional balance and diversity.
- Focusing on equity, diversity, and gender issues with the establishment of teams and codes of conduct.

## **Data Issues and Access:**

- Prioritizing access to literature, computing resources, and data through coordinated approaches and FAIR principles.
- Utilizing technology for real-time access to a broad range of literature.

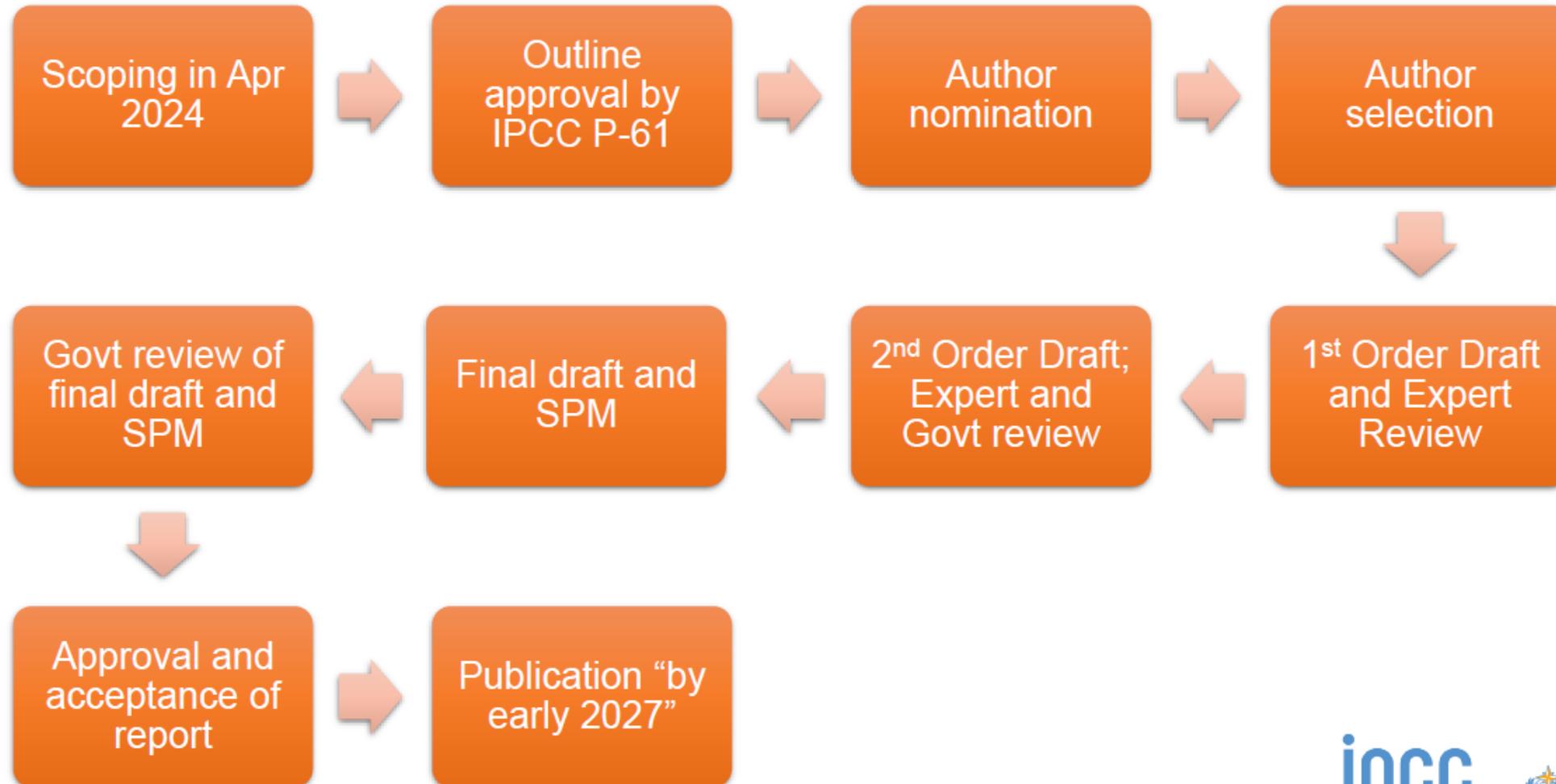
# Revision of IPCC Technical Guidelines

- A distinct product revising and updating the 1994 IPCC Technical Guidelines on impacts and adaptation will be developed.
- Scope: Includes adaptation indicators, metrics, and methodologies.
- Process: Scoped, developed, and reviewed in conjunction with the Working Group II Report.
- Publication: Intended as a separate product for approval and acceptance.



11. A distinct product revising and updating the 1994 IPCC Technical Guidelines on impacts and adaptation, including adaptation indicators, metrics and methodologies will be scoped, developed, reviewed and should be considered for approval and acceptance in conjunction with the Working Group II Report and will be published as a separate product.

## Special Report on Cities and Climate Change: roadmap



# Delivering high wellbeing with low energy demand: Key findings from AR6 and outlook for the AR7 cycle

Diana Urge-Vorsatz  
IPCC Vice Chair

Sixth Assessment Report | Synthesis Report

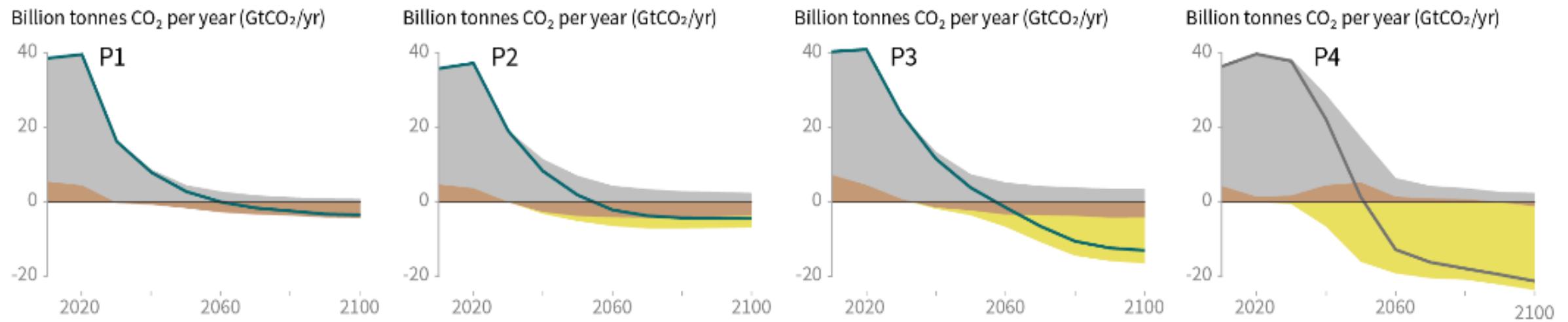
EDITS conference

*Fog Opening the Dawn*  
Jeong Jinsil  
Weather and Climate Photography & Video Contest 2021  
Korea Meteorological Administration

# Characteristics of four illustrative model pathways

## Breakdown of contributions to global net CO<sub>2</sub> emissions in four illustrative model pathways

● Fossil fuel and industry   ● AFOLU   ● BECCS



**P1:** A scenario in which social, business and technological innovations result in lower energy demand up to 2050 while living standards rise, especially in the global South. A downsized energy system enables rapid decarbonization of energy supply. Afforestation is the only CDR option considered; neither fossil fuels with CCS nor BECCS are used.

**P2:** A scenario with a broad focus on sustainability including energy intensity, human development, economic convergence and international cooperation, as well as shifts towards sustainable and healthy consumption patterns, low-carbon technology innovation, and well-managed land systems with limited societal acceptability for BECCS.

**P3:** A middle-of-the-road scenario in which societal as well as technological development follows historical patterns. Emissions reductions are mainly achieved by changing the way in which energy and products are produced, and to a lesser degree by reductions in demand.

**P4:** A resource- and energy-intensive scenario in which economic growth and globalization lead to widespread adoption of greenhouse-gas-intensive lifestyles, including high demand for transportation fuels and livestock products. Emissions reductions are mainly achieved through technological means, making strong use of CDR through the deployment of BECCS.

## Climate Change 2022

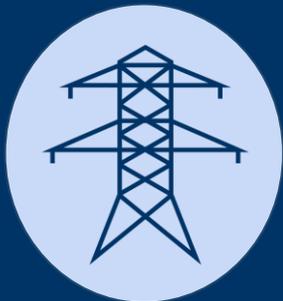
Energy demand and services were a novel but key pillar of mitigation in AR6



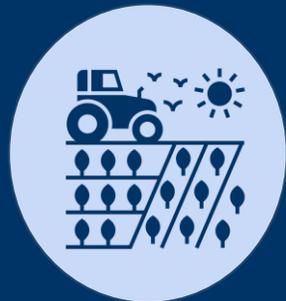
**There are options available now in every sector that can at least halve emissions by 2030**



**Demand and services**



**Energy**



**Land use**



**Industry**



**Urban**



**Buildings**



**Transport**



**C.4 Reducing GHG emissions across the full energy sector requires major transitions, including a substantial reduction in overall fossil fuel use, the deployment of low-emission energy sources, switching to alternative energy carriers, and energy efficiency and conservation. The**

**contin**  
**emissi**  
**C.5 Net-zero CO<sub>2</sub> emissions from the industrial sector are challenging but possible. Reducing industry emissions will entail coordinated action throughout value chains to promote all mitigation options, including demand management, energy and materials efficiency, circular**

**C.6 Urban areas can create opportunities to increase resource efficiency and significantly reduce GHG emissions through the systemic transition of infrastructure and urban form through low-emission development pathways towards net-zero emissions. Ambitious mitigation efforts for established, rapidly growing and emerging cities will encompass 1) reducing or changing energy and material consumption, 2) electrification, and 3) enhancing carbon uptake and storage in the urban environment. Cities can achieve net-zero emissions, but only if emissions are reduced most regions. There are many sustainable options for demand management, materials efficiency, and circular material flows that can contribute to reduced emissions, but how these can be applied will vary across**

**and wou**  
**technolog**  
**scenarios**  
**C.7. In modelled global scenarios, existing buildings, if retrofitted, and buildings yet to be built, are projected to approach net zero GHG emissions in 2050 if policy packages, which combine ambitious sufficiency, efficiency, and renewable energy measures, are effectively implemented and barriers to decarbonisation are removed. Low ambitious policies increase the underestimated compared to bottom-up industry-specific models. (high confidence) {3.4, 5.3, Figure**

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INTERGOVERNMENTAL PANEL ON climate change

# Climate Change 2022

## Mitigation of Climate Change



Working Group III contribution to the  
Sixth Assessment Report of the  
Intergovernmental Panel on Climate Change



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Demand is especially important in developed countries

In developed countries, most technological, social, business (model) innovations are needed for **rethinking** and **restructuring** existing urban space, **repurposing**, **retrofitting** and **reusing existing** infrastructure, vehicle stocks and equipment rather having to build/produce new



# Individuals are important, but people alone cannot bring in change: need infrastructure, technology access, incentives, equity

Demand side mitigation is about more than behavioural change. Reconfiguring the way services are provided while simultaneously changing social norms and preferences will help reduce emissions and access. Transformation happens through societal, technological and institutional changes.

## Tilting the balance towards less resource intensive service provisioning

