Global Gateway

INTPA-NEAR Environment & Climate Week

27-31 March 2023
Brussels, Belgium

Climate Change Mitigation – From Challenges to Solutions

International Climate Response

Global Energy Transition

Carbon Markets & CBAM

This morning's programme ...

9:00 Plenary session

10:30 Coffee break

11:00 Mutual learning workshops

- NDC Implementation : Room 0A
- Just Energy Transition: Room 0B
- Energy Efficiency: Room 0C

12:00 Plenary session

12:30 Closure

INTPA-NEAR Environment & Climate Week 2023

End of climate change sessions.

European Commission

Setting the scene: mitigation as part of the international response to climate change

Nicola Di Pietrantonio
INTPA F.1 – Climate Change and Sustainable Energy; Nuclear Safety

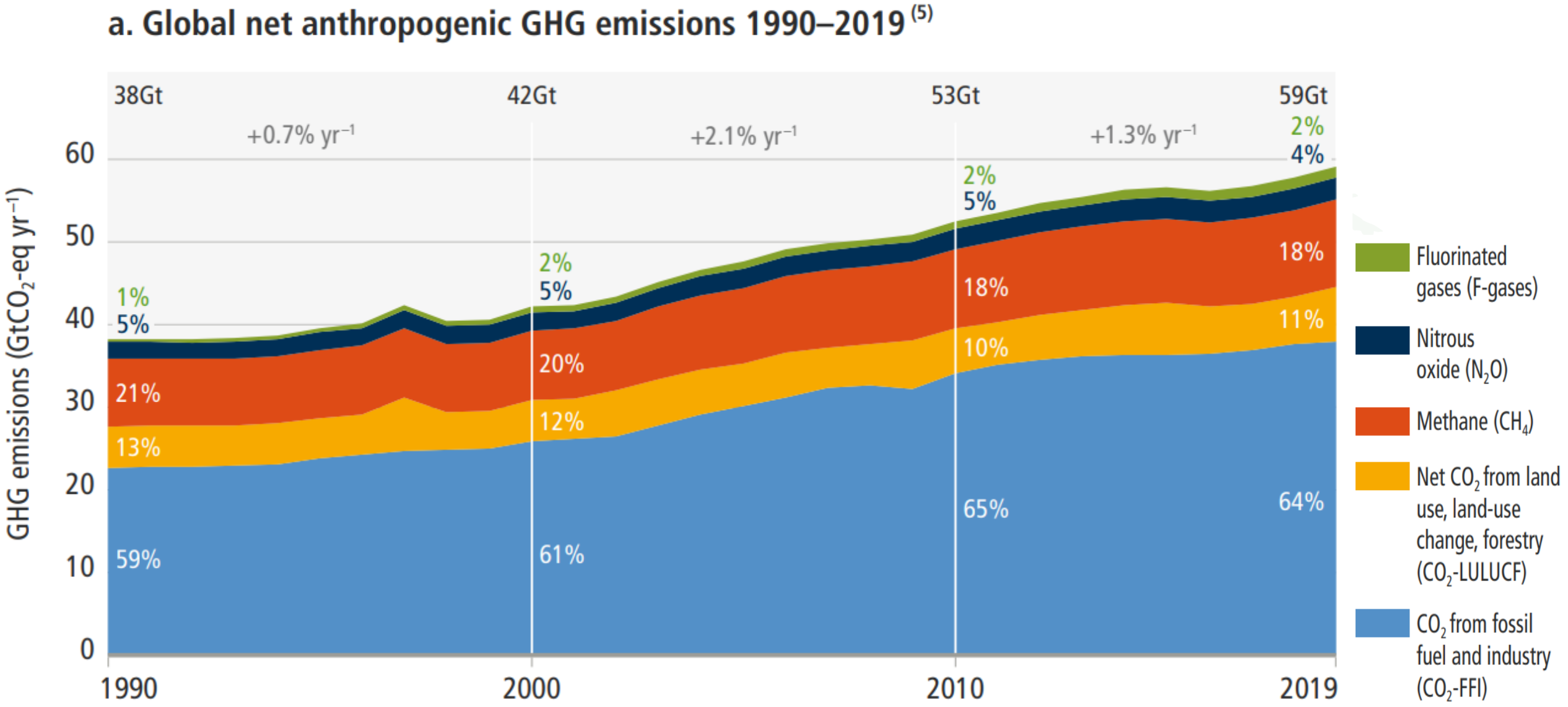
INTPA-NEAR Environment & Climate Week

European Commission

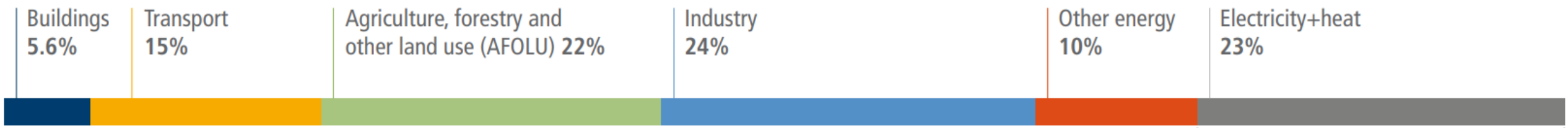
Outline of this session

1. Greenhouse gas emissions and temperature increase: what does science say?
2. The international response to climate change: the Paris Agreement
3. Main instruments for mitigation under the Paris Agreement
4. Mitigation efforts and temperature increase: current prospects
5. Geopolitics and climate action
6. What can the EU do to promote mitigation action?

Warming up: latest IPCC findings on GHG emissions



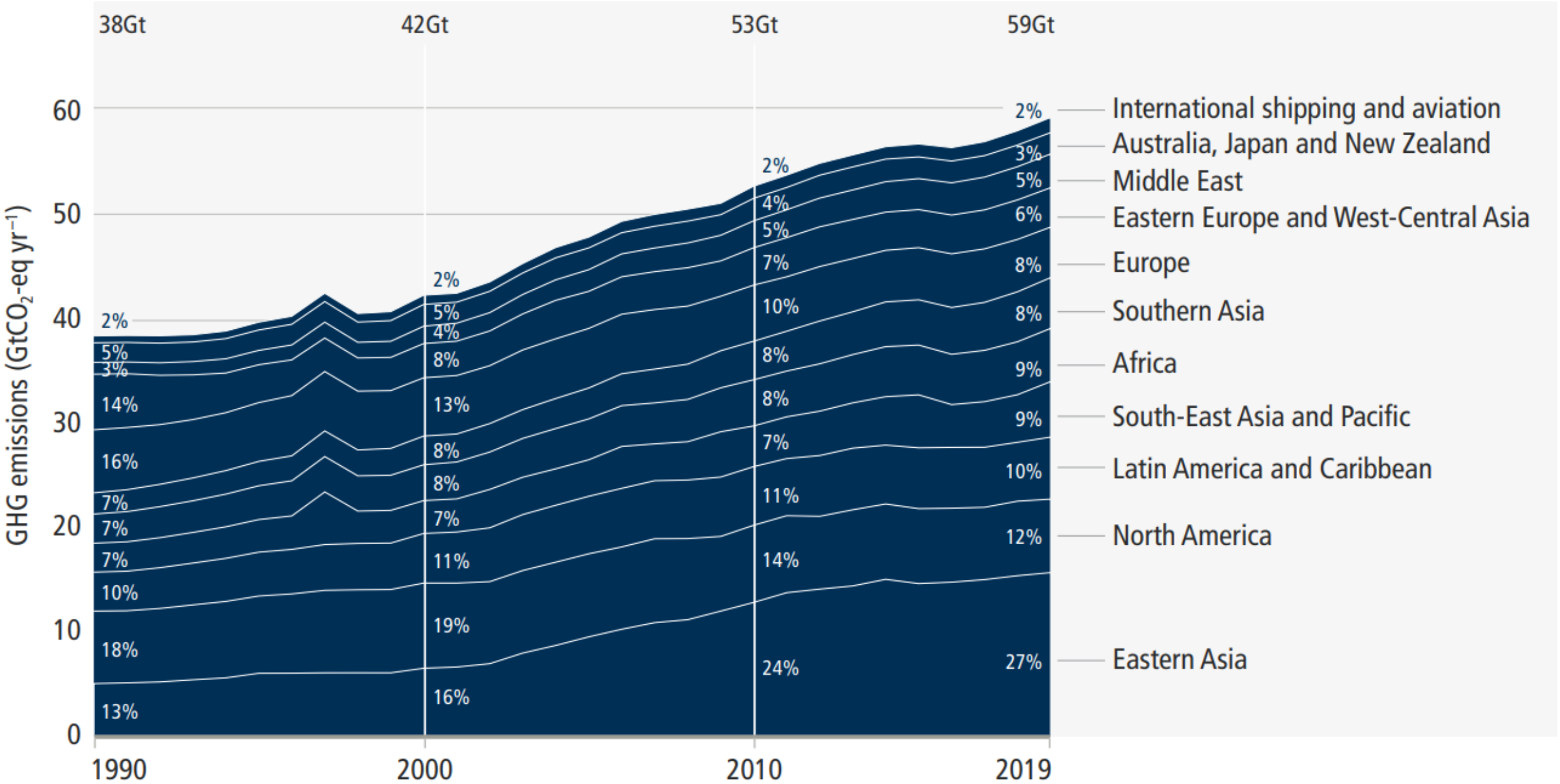
Direct emissions by sector (59 $GtCO_2$-eq)



GHG emissions have increased since 2010 across all major sectors globally:

- In 2019, approximately 79% of global GHG emissions came from the sectors of energy, industry, transport and buildings together and 22% from agriculture, forestry and other land use (AFOLU). 34% from the energy supply sector.
- Increasing share of urban areas.
- Emissions reductions in CO_2 from fossil fuels and industrial processes, due to improvements in energy intensity of GDP and carbon intensity of energy, have been less than emissions increases from rising global activity levels in industry, energy supply, transport, agriculture and buildings.

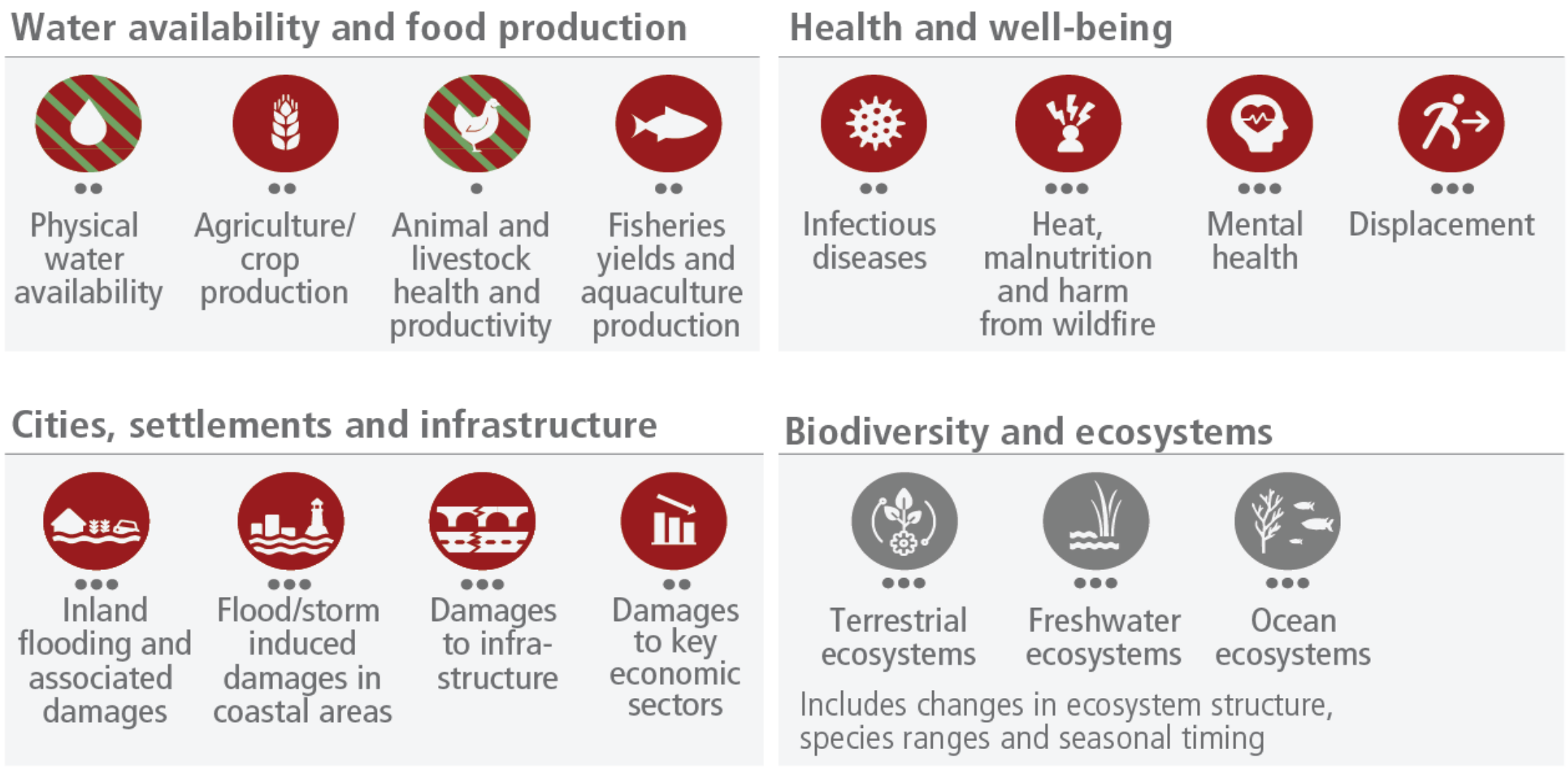
a. Global net anthropogenic GHG emissions by region (1990–2019)



Emissions, temperature increase, impacts

- Human activities, principally through emissions of GHG, have caused **global surface temperature increase: 1.1°C** above 1850–1900 in 2011–2020. Larger increases over land (1.59°C) than over the oceans (0.88°C).
- Global mean **sea level increased by 0.20m** between 1901 and 2018, with average rate of sea level rise increasing over time (3.7mm yr-1 between 2006 and 2018).
- With every increment of global warming, **regional changes** in mean climate and extremes become more widespread and pronounced, and so are the **severity of impact** and **climate-related risks**.
- Approximately **3.3–3.6 billion people live in contexts that are highly vulnerable** to climate change. Human and ecosystem vulnerability are interdependent!

a) **Observed widespread and substantial impacts and related losses and damages attributed to climate change**



Source: UNFCCC NDC Synthesis Report 2022

The international response: the Paris Agreement

Key mitigation-related objectives:

- **Long-term temperature goal**: holding the **increase in the global average temperature to well below 2°C** above pre-industrial levels and **pursuing efforts** to limit the temperature increase **to 1.5°C** above pre-industrial levels [art. 2.1(a)]

- Making **finance flows consistent with a pathway towards low greenhouse gas emissions** and climate-resilient development [art. 2.1(b)]

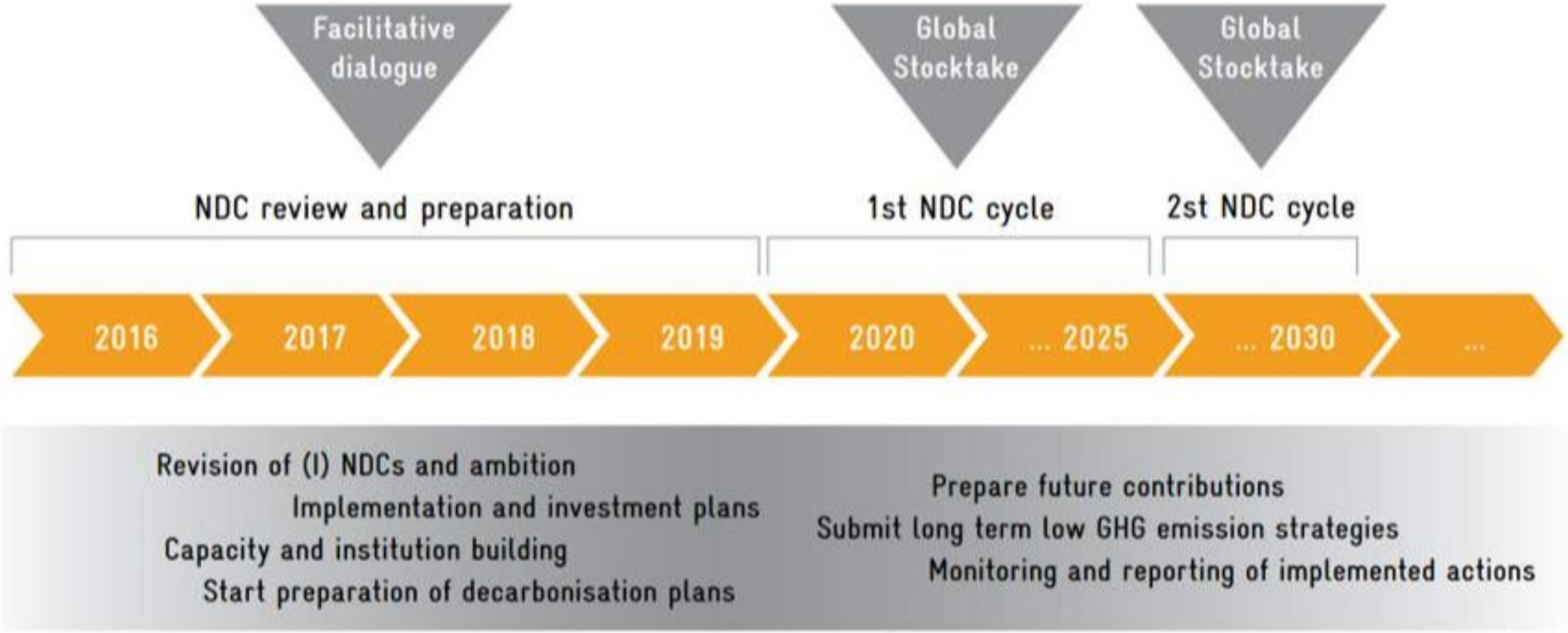
Main instruments for mitigation:

- Nationally Determined Contributions (NDCs)
- Long-term low greenhouse gas emission development strategies (LTS)
- Greenhouse Gas Sinks and Reservoirs
- Cooperative Approaches (market and non-market approaches

Three forms of support: finance, capacity building, technology transfer

Nationally Determined Contributions (NDCs)

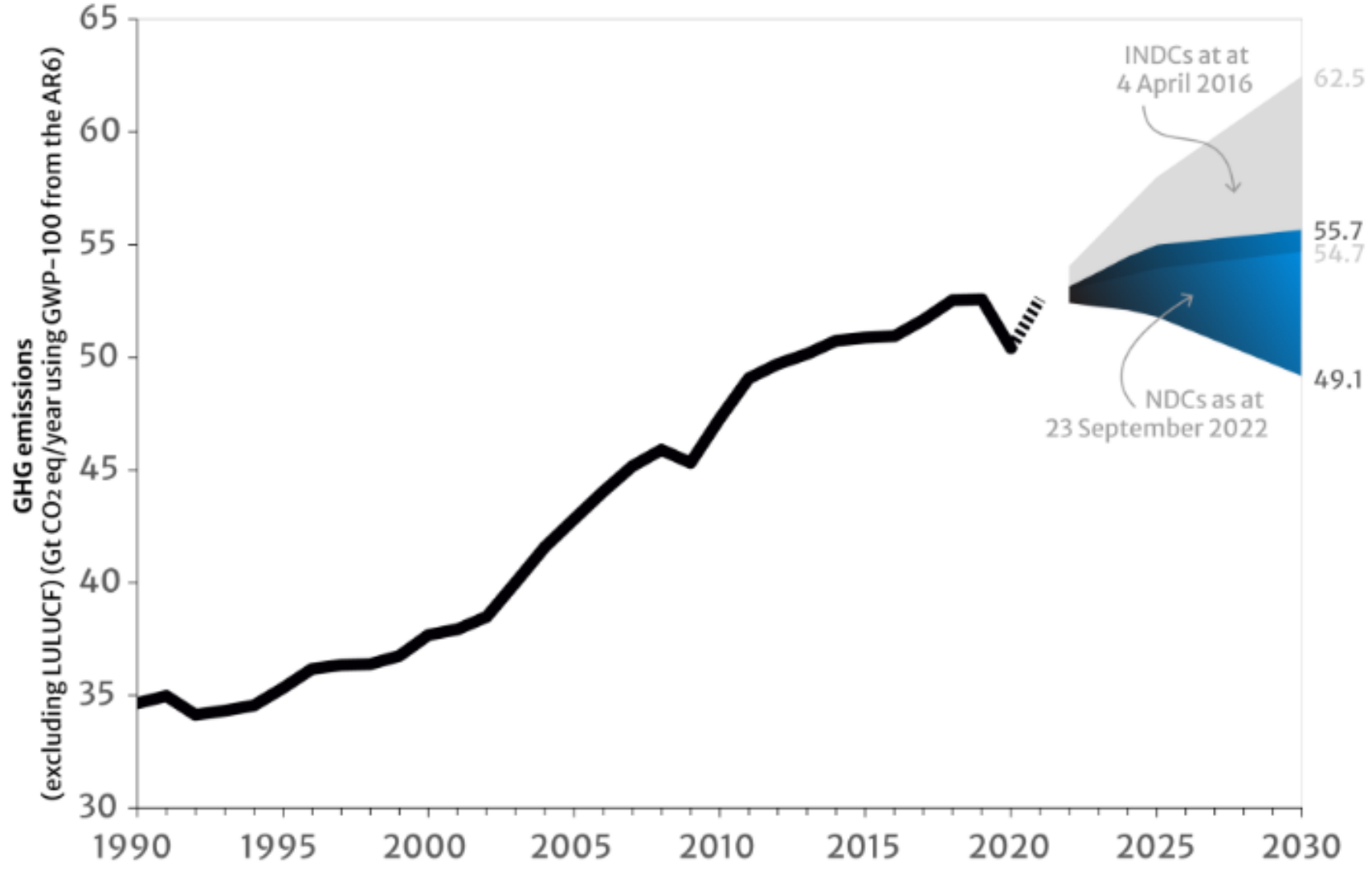
- NDCs = national commitments though which Parties communicate their targets to reduce GHG emissions and outline the plans to do so.
- “Determined” according to national circumstances and priorities.
- Change of approach: binding procedures (with flexibility); non-binding targets (≠ KP)
- Single most important instrument for the implementation of the Paris Agreement >> primarily a mitigation vehicle!
- 5-year ambition cycle with progressively higher targets (sectoral > economy wide)



Source: GIZ NDC Cycle

So, where do we stand in terms of mitigation ambition?
Are current NDCs sufficient?
What are the prospects for global warming?

INTPA-NEAR
Environment
& Climate Week



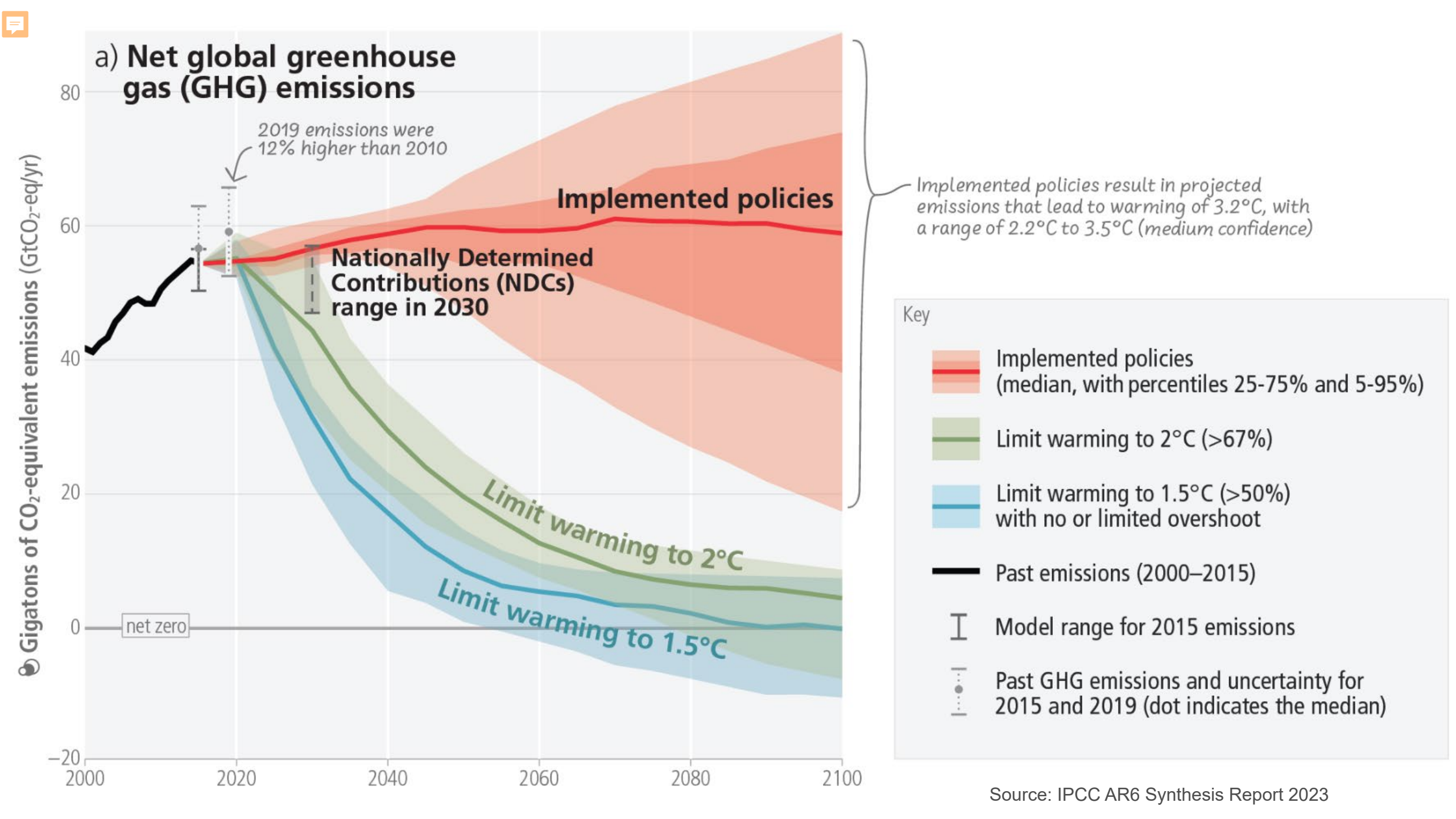
Credit: UN Climate Change

INTPA-NEAR Environment & Climate Week

Projected range and progression of emission levels according to nationally determined contributions

Source: UNFCCC NDC Synthesis Report 2022

European Commission



Source: IPCC AR6 Synthesis Report 2023

What are the implications?

- Substantial '**emissions gap**' between global GHG emissions in 2030 associated with the implementation of NDCs announced prior to COP26 and those associated with modelled mitigation pathways for the 1.5°C goal. Emission gap exacerbated by an NDC '**implementation gap**'. Global warming set to exceed 1.5°C during this century.
- **Updated pledges after COP26 will take less than 1% off projected 2030 GHG emissions. -45% is needed for limiting global warming to 1.5°C (-30% for a 2°C goal) compared to 2010 levels.**
- Incremental global warming to intensify multiple and concurrent hazards > every region projected to increasingly experience concurrent and multiple changes in climatic impact-drivers.
- **Deep, rapid, and sustained reductions in greenhouse gas emissions in all sectors needed to achieve a discernible slowdown of global warming** within around two decades. Message of hope by the IPCC!
- …but what are the prospects for climate action in the current geopolitical context?

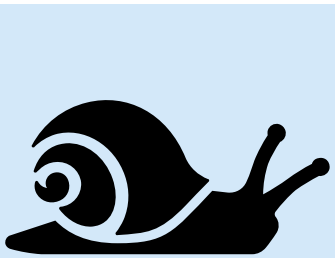
Impact of the current geopolitical situation and energy crisis on climate mitigation action

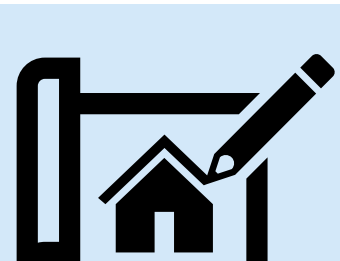
Fossil fuels prices increase

Increase in coal use and production

"scramble for gas"

Green transition perspectives slow down...



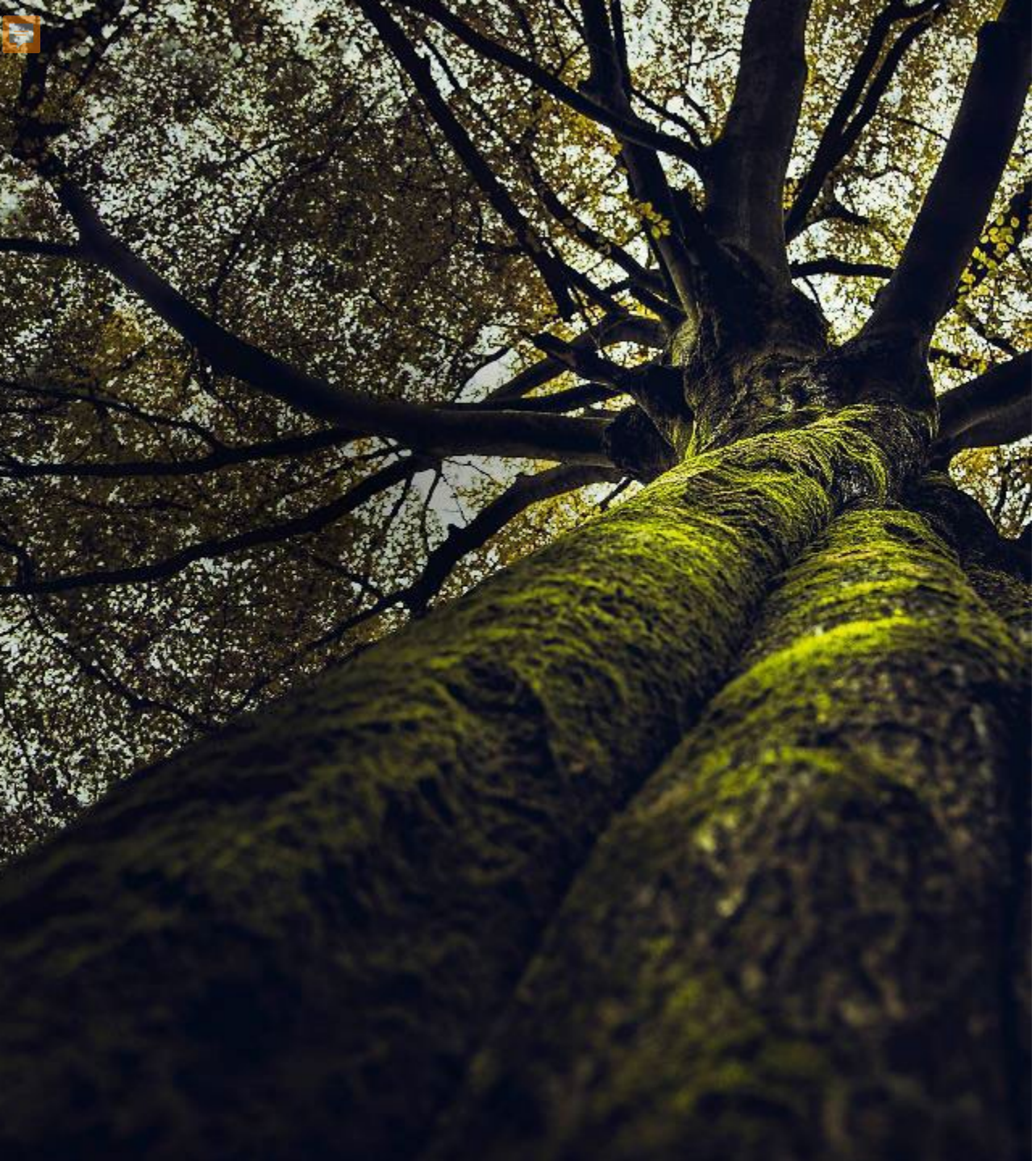


Green reconstruction & plans to build back/ forward **better**

Energy security considerations add **incentives** & increase **ambition.**

INTPA-NEAR Environment & Climate Week

European Commission



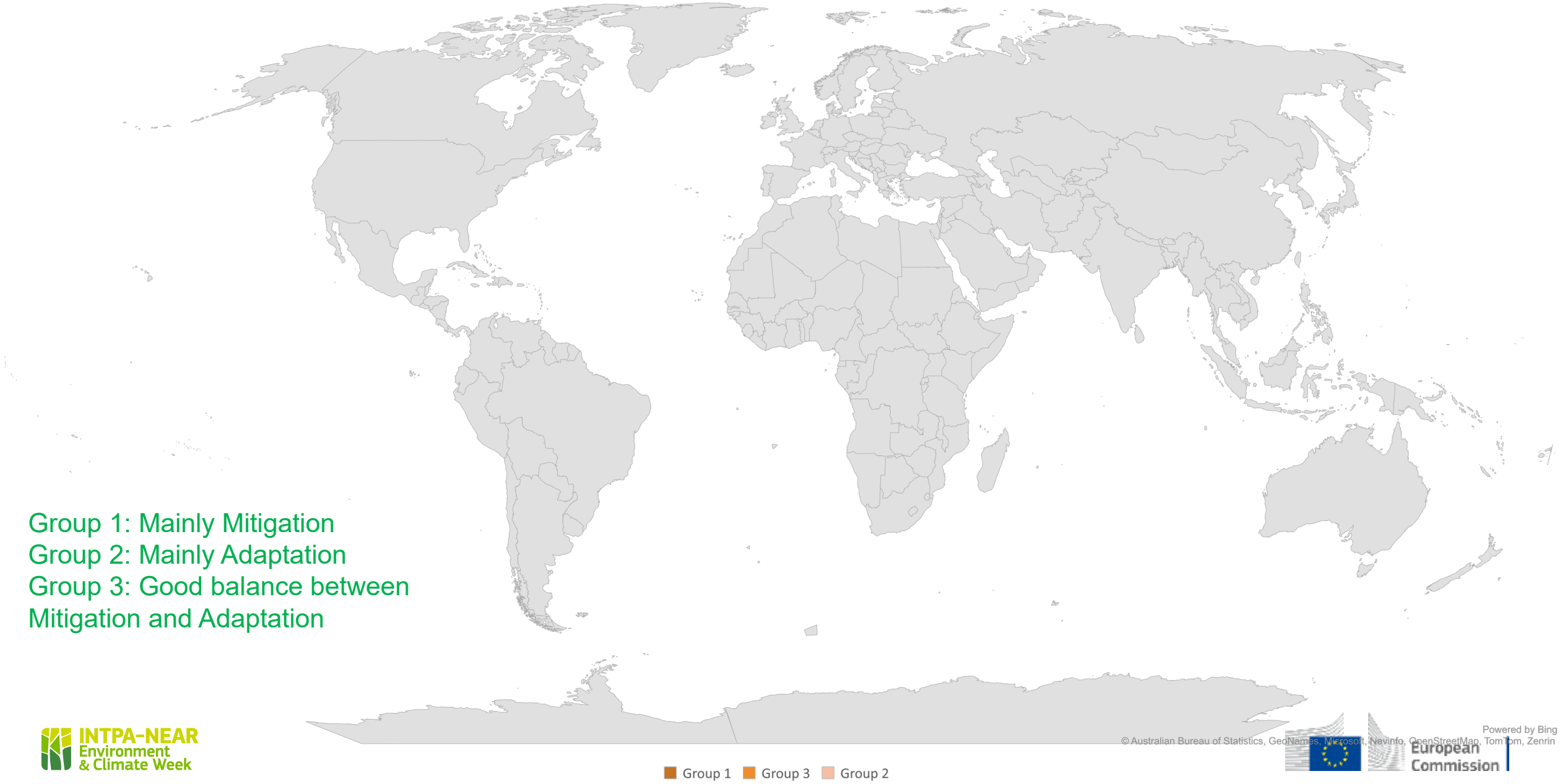
How can the EU external action promote mitigation ambition?

European Commission

How can the EU external action promote mitigation ambition?

- Make full use of the MIPs' mitigation-related priorities, in line with the Green Deal and the Global Gateway
- Embed mitigation efforts into national development policies
- Support functioning climate governance institutional frameworks
- Assist with the formulation, upgrade and implementation of NDCs and LTS
- Support robust measurement, reporting and verification (MRV) systems
- Exploit / invest into increasingly cost-efficient mitigation options (esp. energy)
- Promote technology transfer and capacity building
- Support participation in carbon market mechanisms
- Promote the phase-out of environmentally harmful subsidies
- Mobilise private finance

Climate Action in the MIPs (2021-2027)



Group 1: Mainly Mitigation
Group 2: Mainly Adaptation
Group 3: Good balance between Mitigation and Adaptation

INTPA-NEAR Environment & Climate Week

European Commission

Global Gateway

Thank you

INTPA-NEAR Environment & Climate Week 2023

Climate Change Mitigation – From Challenges to Solutions

International Climate Response

Global Energy Transition

Carbon Markets & CBAM

This morning's programme ...

9:35	Ingrid Cailhol – Introduction Jelena Milos – Just Energy Transition
	Vera Kellen – Global Methane Pledge
	Nicolas Ritzenthaler – Energy efficiency
	Athena Koulouris – Clean Cooking
9:50	Clarification questions
10:05	End of session

Workshop: Just Energy Transition ROOM 0B

Workshop: Energy Efficiency ROOM 0C

INTPA-NEAR Environment & Climate Week 2023

European Commission