Role of the land use sector in NDCs and the First Global Stocktake

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Rosa Maria Roman-Cuesta, Giacomo Grassi, et al.
Joint Research Centre, European Commission

Michel den Elzen, William Lamb, Nicklas Forsell, Zuel Araujo, Matt Gidden et al.

NDCs

- Nationally determined contributions (NDCs) **heart of the Paris Agreement** and the **achievement of its long-term goals**.

- The Paris Agreement (Article 4, paragraph 2) **requires each Party to prepare, communicate and maintain successive (5 year) nationally determined contributions (NDCs)** that it intends to achieve.

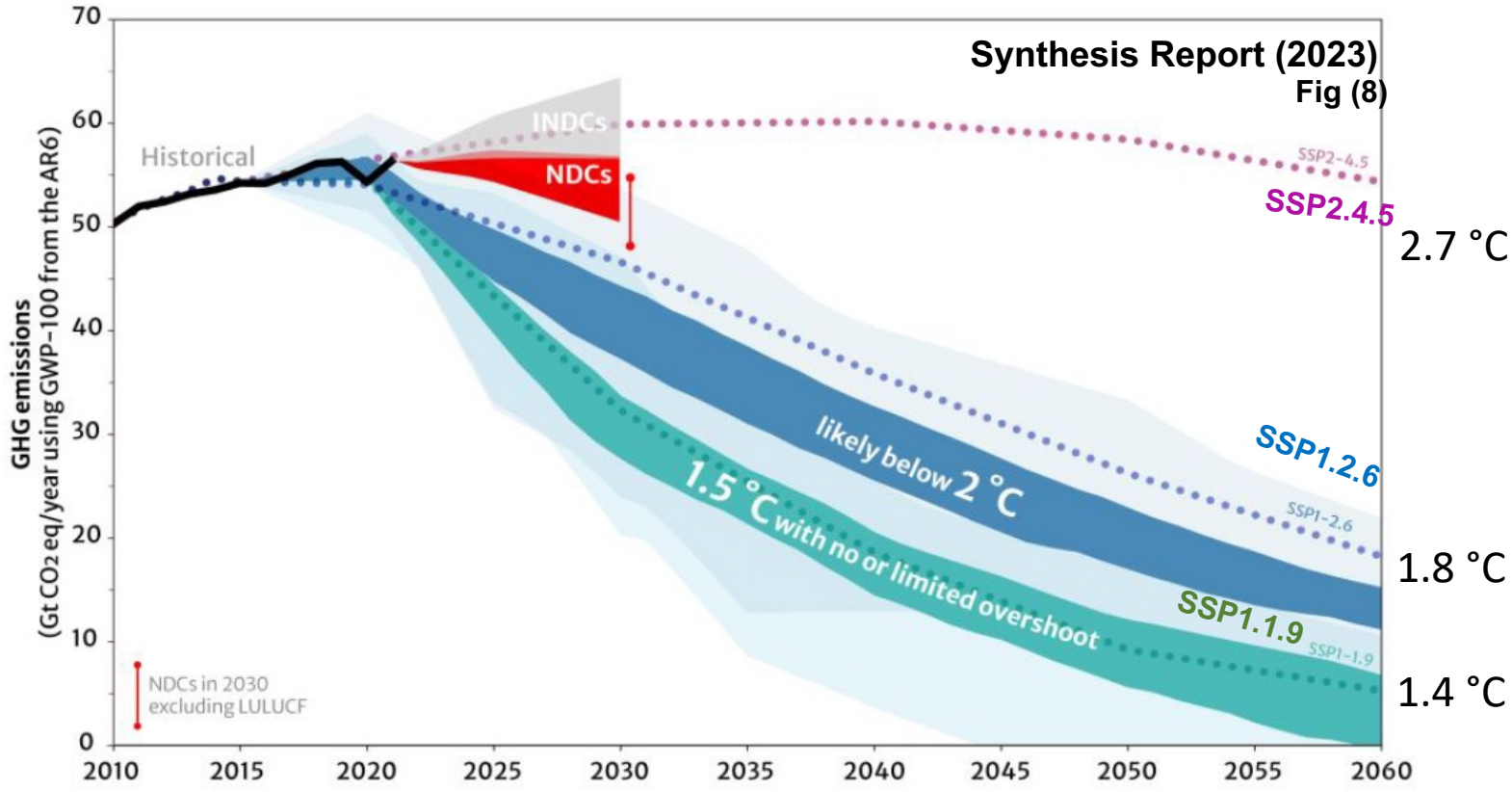
- **First BTR by 31st Dec 2024**: countries start tracking their progress in NDC implementation and achievement

- **UNFCCC has tracked progress of NDCs against PA goals:**
  - annual **Synthesis Reports,** funding permitting (2016, 2021, 2022, 2023)
  - **Global Stocktake** (5-y process), concluding **3 years after NDC** submissions (2023)

NDCs (2030 emissions and pledges)

GLOBAL STOCKTAKE
SYNTHESIS REPORTS (2016, 2023)

Comparison of scenarios assessed in the Intergovernmental Panel on Climate Change Sixth Assessment Report with projected total and per capita global emissions according to nationally determined contributions



Emission pathways aligned with temperature goals

NDC 2015 submission

Grassi et al (2017) (cut-off date April 2016)

- LULUCF represented **25% of the economy-wide pledges in 2030**
- **2030 LULUCF emissions scenarios** (were sinks)
  - Unconditional: -0.4 GtCO2e/y
  - Conditional: -2.1 GtCO23/y

NDC 2020 submission

(cut-off date March 2024)

- LULUCF **retains 25% of the economy-wide pledges in 2030** (-1.5 vs -5.9 GtCO2e/y, UNEP GAP Report (2023))
- **2030 LULUCF emissions scenarios** (are higher sinks)
  - Unconditional: -2.9±0.7 GtCO2e/y
  - Conditional: -4.2±1.4 GtCO23/y

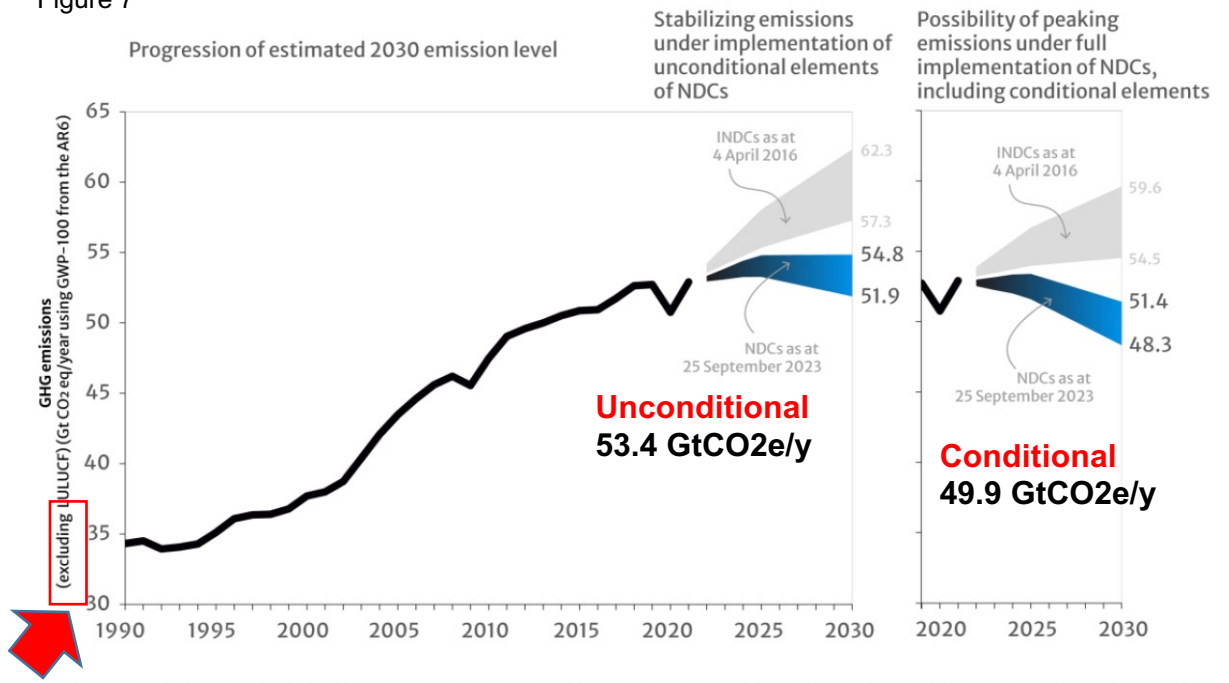
	2011-2020			2030			Mitigation against historical period (2011-2020)	
	Net flux	Emissions	Removals	BAU	Unconditional	Conditional	Unconditional	Conditional
World	-2.7±0.7	5.4	-8.2	-1.2±0.5	-2.9±0.7	-4.2±1.4	-0.2±0.5	-1.5±1.1
AI	-1.9±0.4	0.8	-2.7	-1.8±0.4	-2.1±0.4	-2.1±0.4	-0.2±0.3	-0.2±0.3
NAI	-0.8±0.6	4.6	-5.5	0.6±0.4	-0.8±0.6	-2.1±1.4	0.01±0.4	-1.3±1.0

NDCs 2020: SYNTHESIS REPORT (2023) (model alignment)

Option 1: 2030 emission scenarios excluding LULUCF

Historical and projected total global emissions according to nationally determined contributions

Figure 7



Note: For comparison, global emissions with LULUCF in 2030, when taking into account implementation of the new or updated NDCs (blue areas), are estimated to be 55.4 (54.0–56.9) Gt CO_2 eq considering unconditional elements and 51.9 (50.4–53.5) Gt CO_2 eq assuming full implementation.

[4] Unless otherwise noted, in this report global GHG emission totals exclude emissions from forestry and other land use or LULUCF but include emissions from international maritime transport and international aviation.

Countries NDCs

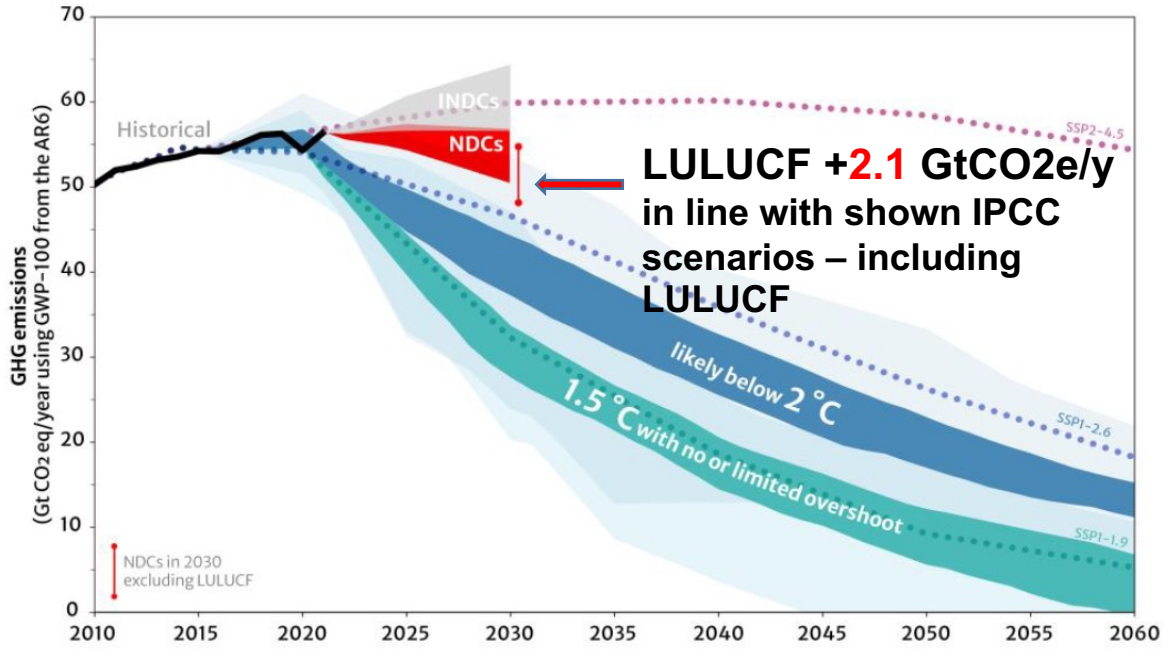
Unconditional: -2.9±0.7 GtCO2e/y

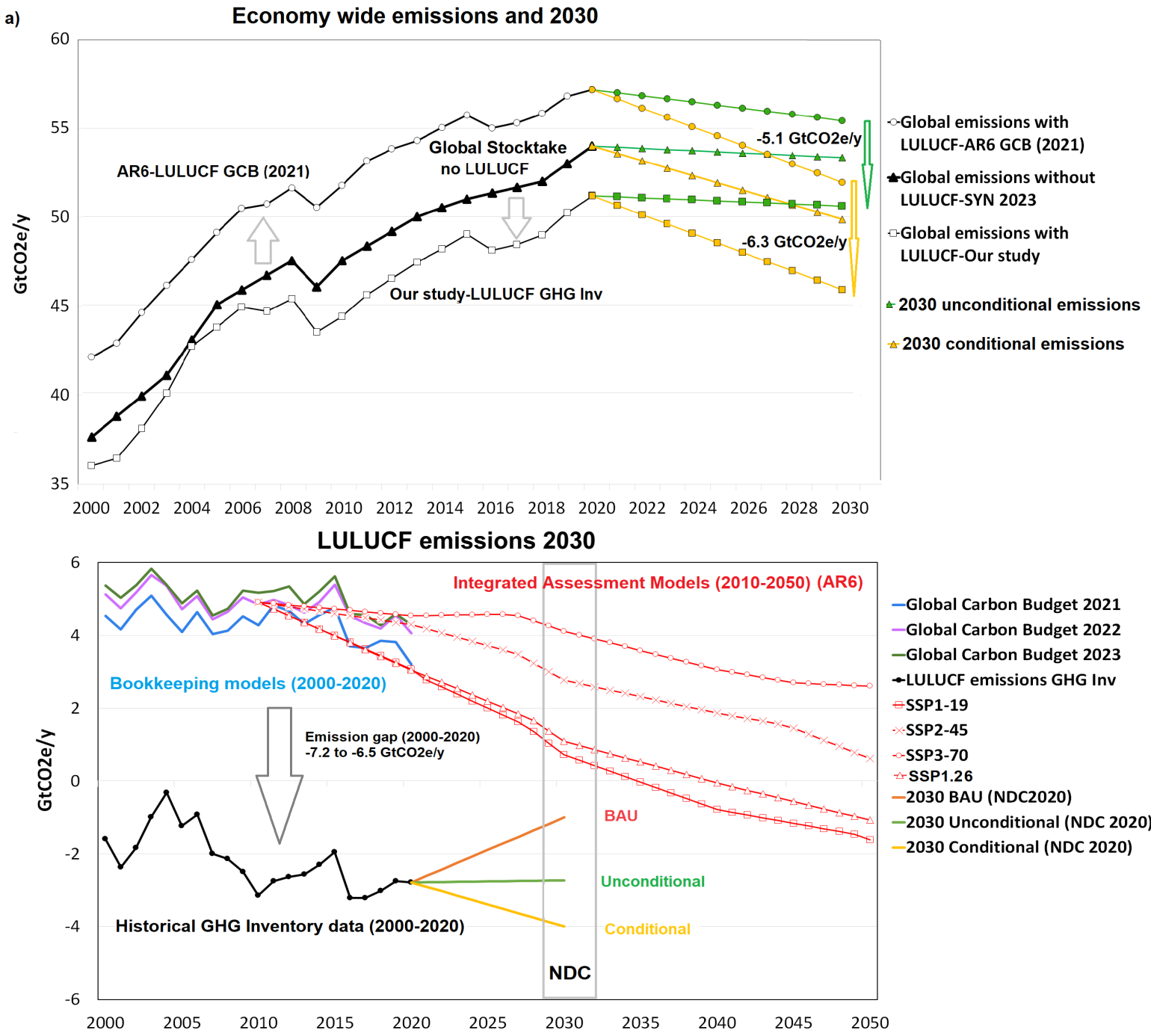
Conditional: -4.2±1.4 GtCO23/y

Option 2: 2030 emission scenarios including LULUCF

Comparison of scenarios assessed in the Intergovernmental Panel on Climate Change Sixth Assessment Report with projected total and per capita global emissions according to nationally determined contributions

Figure 8



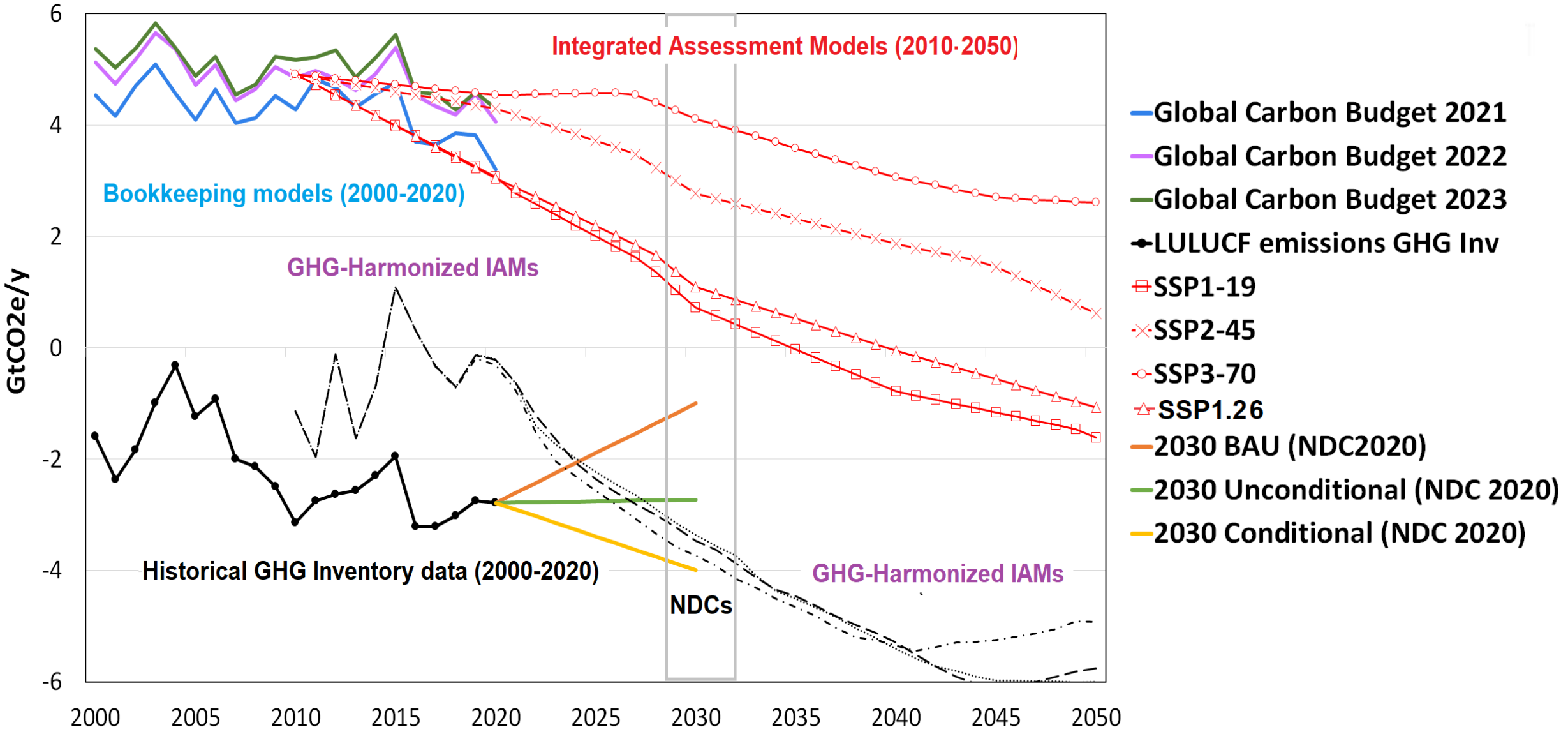


- **2030 LULUCF emission scenarios differ** between **model** and **countries NDC** by **-5.1 GtCO2e/y and -6.3 GtCO2e/y** (un/conditional): **9 and 11% of global emissions in 2019** (59 GtCO2e/y)

- **Ambiguous carry-over** of the historical **model-country gap (6.5 GtCO2e/y) in 2030,** affected by countries' 2030 **projected pledges** in their NDC, and **modelled pathways** that align with **PA's temperature goals**

- **2030 differences** between models and country-NDC data have a **direct impact on net zero timing and remaining available carbon budget**, reducing time for implementation and available budget when harmonized with GHG-NDC data.

Some 2030 harmonization solutions



Gidden et al. harmonization

Questions?