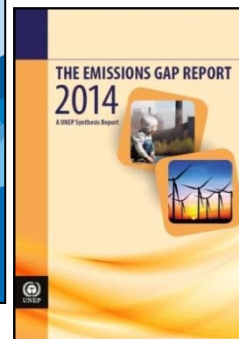
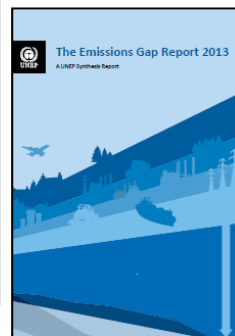
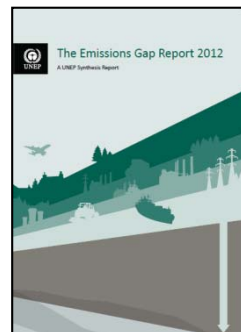
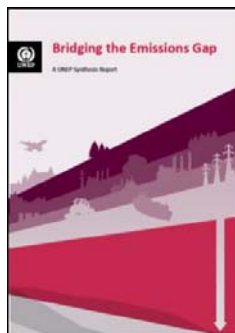
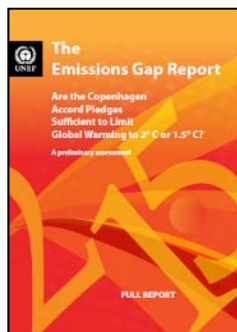
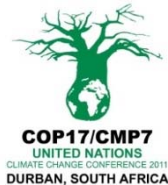
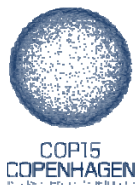

The Link between Transparency and Ambition - UN Environment Emissions Gap Reports

What are the implications of the Paris Agreement?
How can the 2030 emissions gap be bridged?
What is the role of transparency in enhancing ambition?

PATPA Annual Partnership Retreat ♦ 5 September 2017

UN Environment Emissions Gap Reports



What are we aiming for?

- Keeping temperature increase well below 2°C and pursue 1.5°C by 2100

What is the pre-2020 contribution?

- Collectively countries are on a likely track to meet Cancun pledges, but these are not sufficiently ambitious to get on track to 2030 emission levels consistent with the well below 2°C or 1.5°C goal

What do NDCs contribute?

- Emission levels resulting from INDCs are 4 to 6 GtCO₂e/yr lower than the current policy trajectory in 2030, but the remaining Gap is in the order of 12 to 14 GtCO₂e/yr compared with 2°C scenarios and 15 to 17 GtCO₂e/yr compared with 1.5°C

Will this be sufficient to stay well below 2°C?

- Without enhanced ambition the likely global average temperature increase will be in the range of <2.9 - 3.4°C by the end of the century. The carbon dioxide budget for the 2°C scenario will be close to depleted by 2030, and the 1.5°C exceeded by far

How can the 2030 Gap be bridged?

- Non-state action deliver results and can be rapidly accelerated to enhance ambition
- Large sectoral emission reduction potential
- The SDG-Paris Agreement nexus is complex and reiterates the urgency of strategic choices if both agendas are to be achieved

General progress on Cancun pledge achievement but several countries will need to accelerate action

Collectively, pledges are not sufficiently ambitious to improve the starting point for meeting required 2030 emission levels

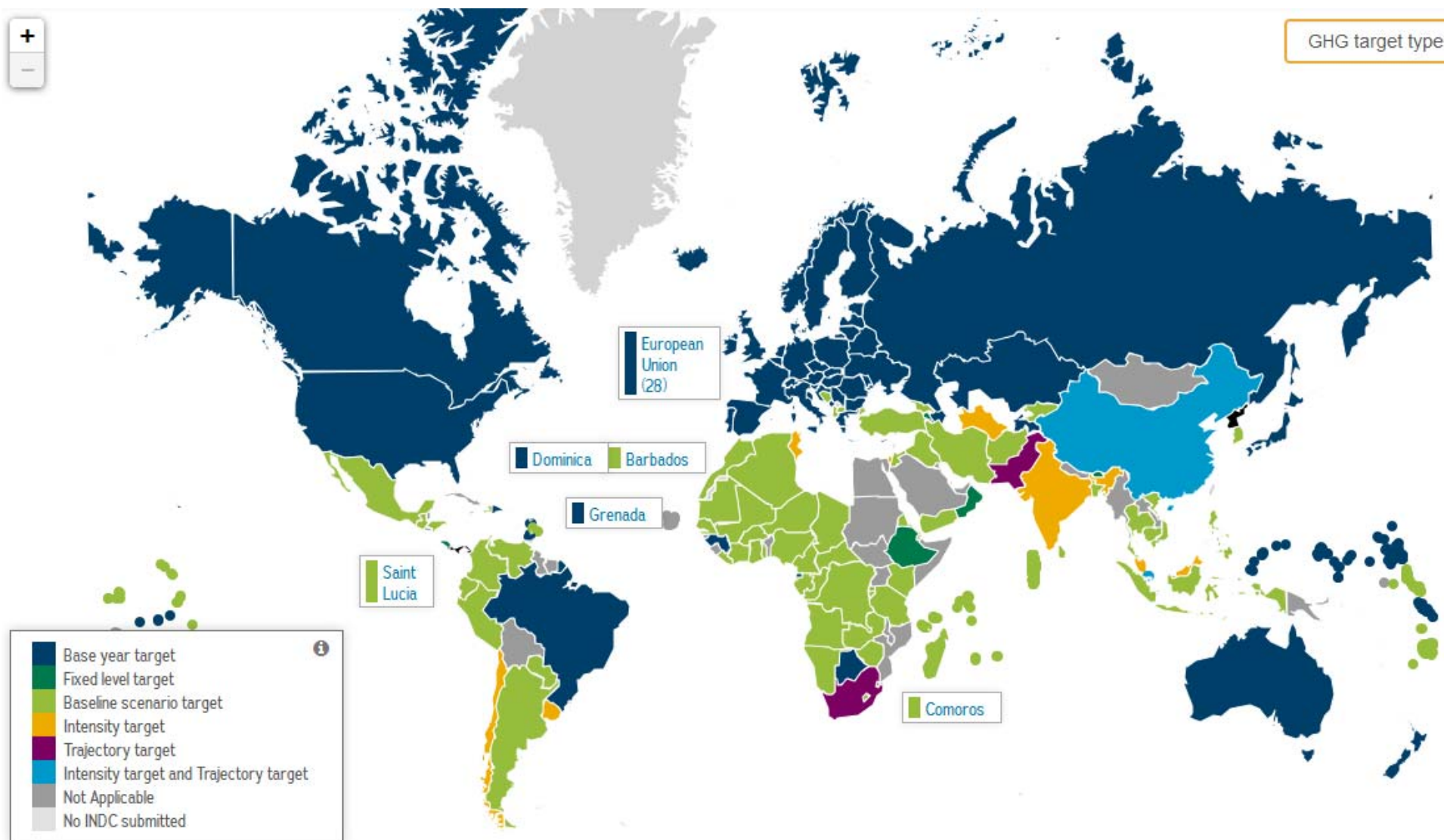
Urgency of enhanced pre-2020 action indisputable in order to:

- Maintain solution space for achieving the stringent emission reductions required
- Avoid lock-in of carbon- and energy-intensive infrastructure and reduce long term dependence on unproven technologies such as negative emissions
- Reduce the costs of mitigation
- Keep open the option of limiting global temperature increase to 1.5°C by 2100

Progress towards achieving the 2020 pledges for G20 members

- Collectively, G20 members are on a likely track to meet the minimum level of the Cancun pledges
- China, India and the EU are on track to meet the 2020 pledges; Brazil, Japan, and Russia are also on track according to most estimates
- Canada, Mexico, the Republic of Korea and the United States are likely to require further action and/or purchased offsets in order to meet their 2020 pledges.
- For South Africa and Indonesia information is insufficient to assess Cancun pledge alignment. For Australia no conclusion is drawn regarding pledge attainment.

NDC submissions by type of mitigation target, (by 1st October 2016)



Challenges for NDC assessment

Wide variety of targets used :

- Economy-wide absolute reduction from historical base year emissions
- Emissions reduction relative to a baseline projection for the emissions associated with energy consumption
- Trajectory target for specific sectors or gases
- Specifying a peaking year
- Emissions intensity of GDP
- A fixed level target

Conditional & Unconditional

- 119 to 160 INDCs assessed
- 146 to 187 countries represented
- 88-96% of 2012 global emissions

Challenges for NDC assessment

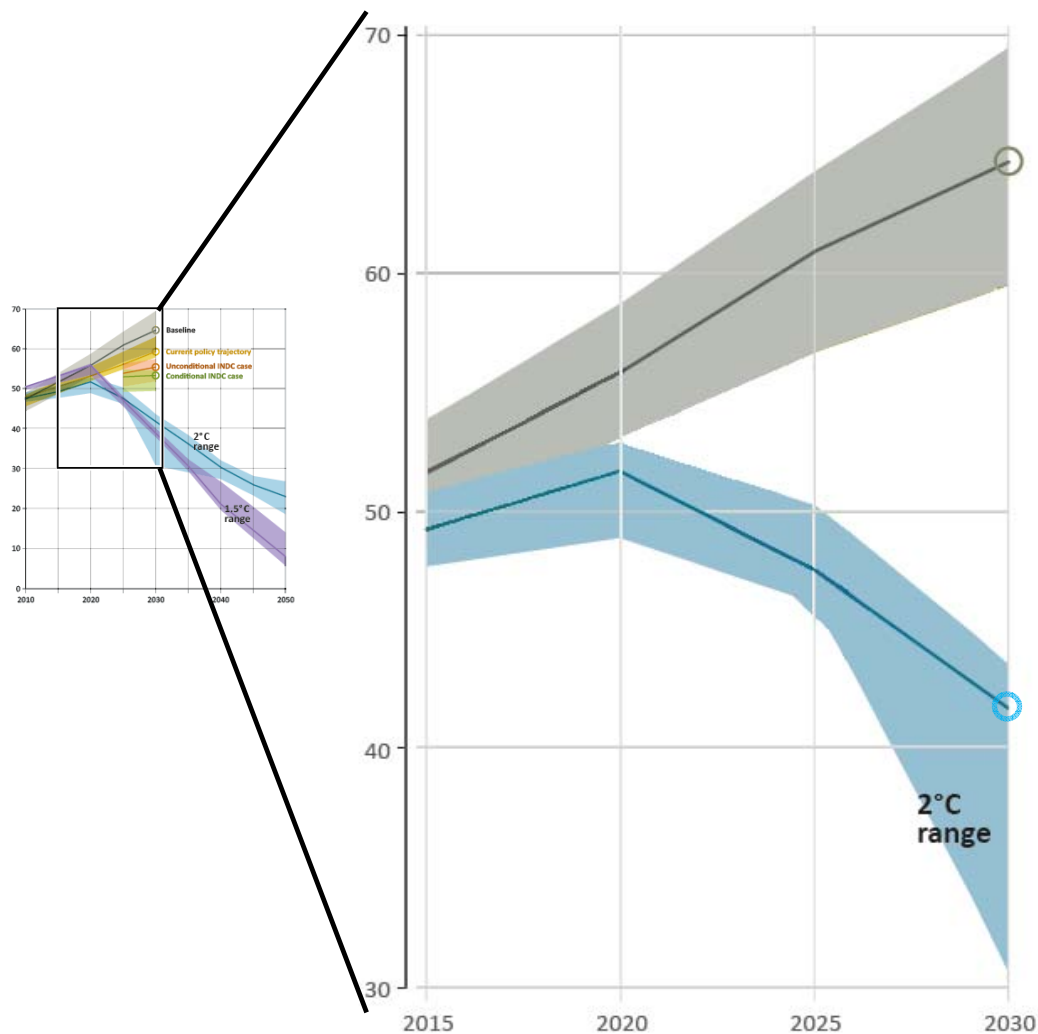
- **Differences in reporting:** Reported historical data differs slightly between inventory and projections
- **Forestry:** estimates for LULUCF and exact accounting rules are not always known
- **Missing estimates:** Inter- and extrapolation is necessary where 2025 and 2030 were not provided, timing but not level of peak provided
- **GWPs:** Emissions are reported in GWP from SAR and AR4, historical emissions and projections may not match
- **Missing information on countries/sectors:** for global aggregation, information on all countries and sectors and greenhouse gases is necessary

Ten independent studies

Reference	Sector and gas coverage	Cut-Off Date Analysis INDCs	Scenario coverage	Unconditional INDC case	Conditional INDC case
Climate Action Tracker (CAT, 2015)	All	8 Dec. 2015	Current policy trajectory, INDC	X	X
Climate & Energy College / University of Melbourne dataset (Meinshausen, 2015)	All	15 Dec. 2015	INDC	X	X
Climate Interactive (2015)	All	20 Oct. 2015	INDC	X	—
Danish Energy Agency (DEA, 2015)	All	1 Dec. 2015	INDC	X	—
London School of Economics and Political Science (LSE) (Boyd et al., 2015)	All	Mid-Oct. 2015	INDC	X	X
International Energy Agency - World Energy Outlook (IEA, 2015)	All ^a	15 Dec. 2015	Current policy trajectory, INDC	X	—
Joint Research Centre (JRC) (Kitous and Keramidas, 2015)	All	Mid-Oct. 2015	INDC	X	X
Pacific Northwest National Laboratory (Fawcett et al., 2015) (NEW STUDY)	All	Mid-Oct. 2015	INDC	X	—
PBL Netherlands Environmental Assessment Agency (den Elzen et al., 2016)	All	15 Dec. 2015	Current policy trajectory, INDC	X	X
UNFCCC Synthesis Report (UNFCCC, 2016a)	All	4 April 2016	INDC	X	X

NDCs & the Emissions Gap

Annual global total greenhouse gas emissions (GtCO₂e)

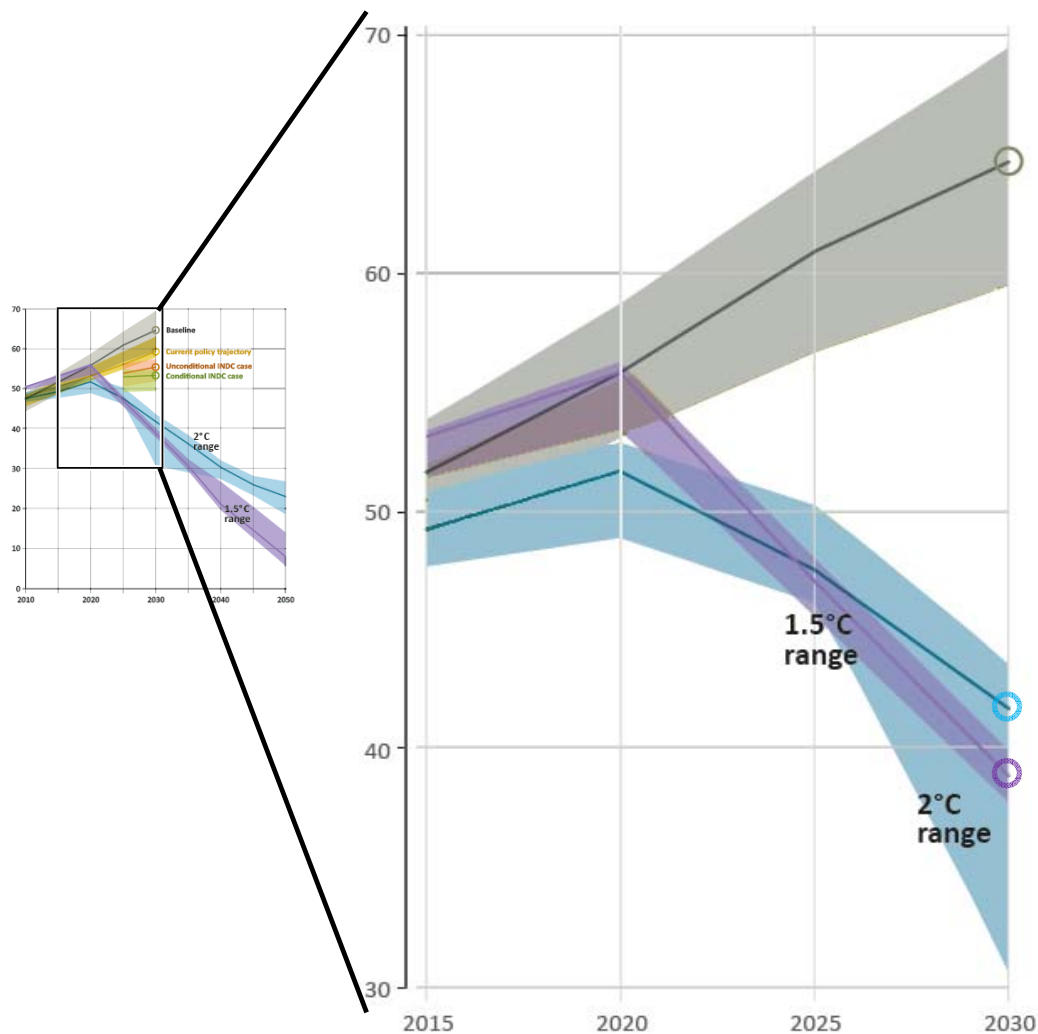


Baseline
 Global total emissions:
65 GtCO₂e (range: 60-70)

2°C pathways (>66%)
 Global total emissions:
42 GtCO₂e (range: 31-44)

NDCs & the Emissions Gap

Annual global total greenhouse gas emissions (GtCO₂e)



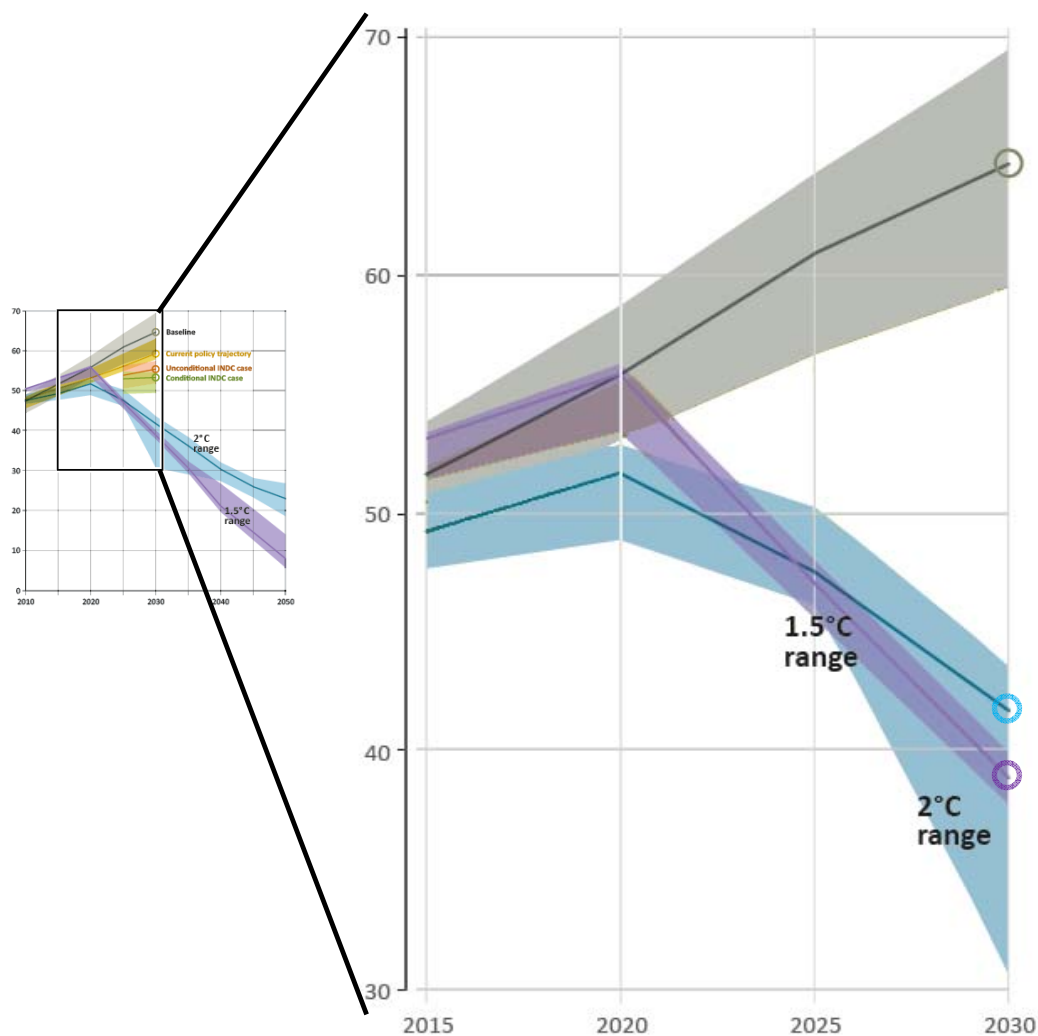
Baseline
 Global total emissions:
65 GtCO₂e (range: 60-70)

2°C pathways (>66%)
 Global total emissions:
42 GtCO₂e (range: 31-44)

1.5°C pathways (>50%)
 Global total emissions:
39 GtCO₂e (range: 38-40)

NDCs & the Emissions Gap

Annual global total greenhouse gas emissions (GtCO₂e)



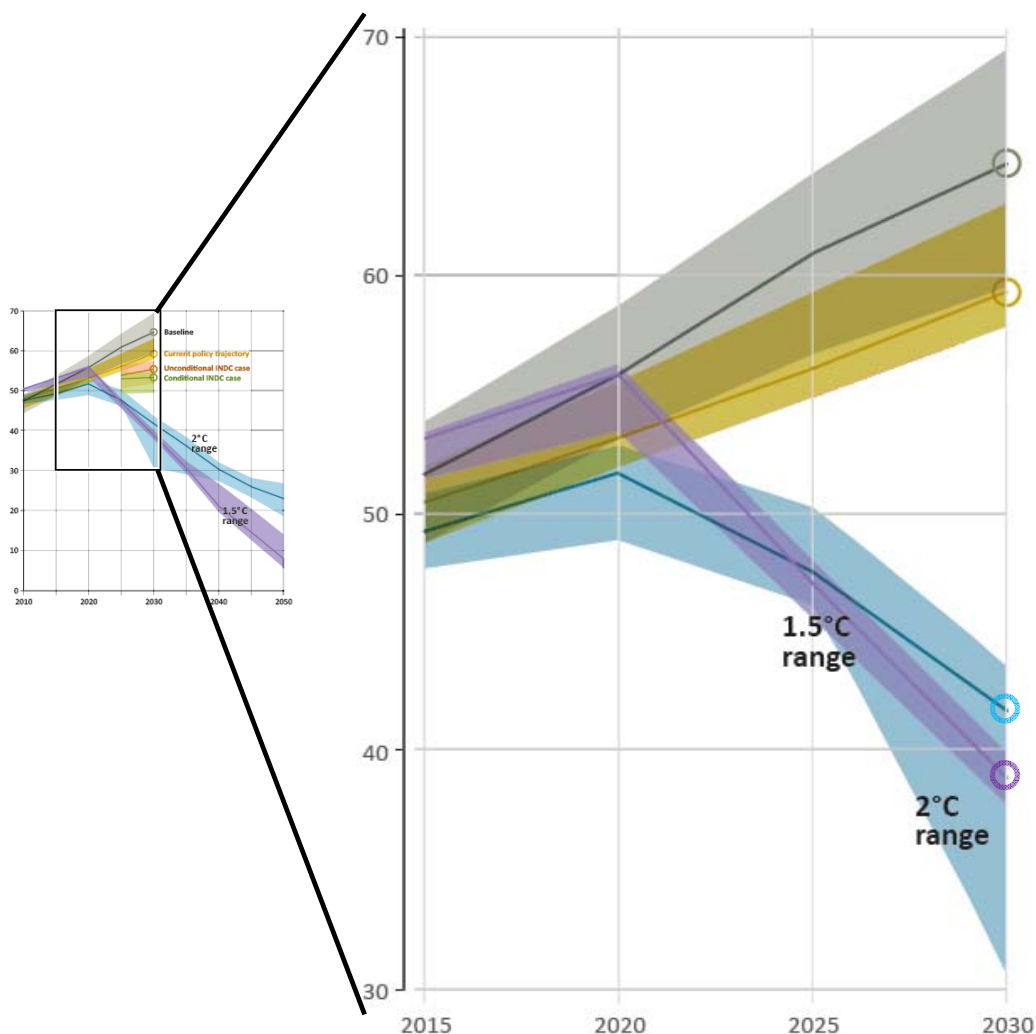
Baseline
 Global total emissions:
65 GtCO₂e (range: 60-70)

2°C pathways (>66%)
 Global total emissions:
42 GtCO₂e (range: 31-44)

1.5°C pathways (>50%)
 Global total emissions:
39 GtCO₂e (range: 38-40)

NDCs & the Emissions Gap

Annual global total greenhouse gas emissions (GtCO₂e)



Baseline
 Global total emissions:
65 GtCO₂e (range: 60-70)

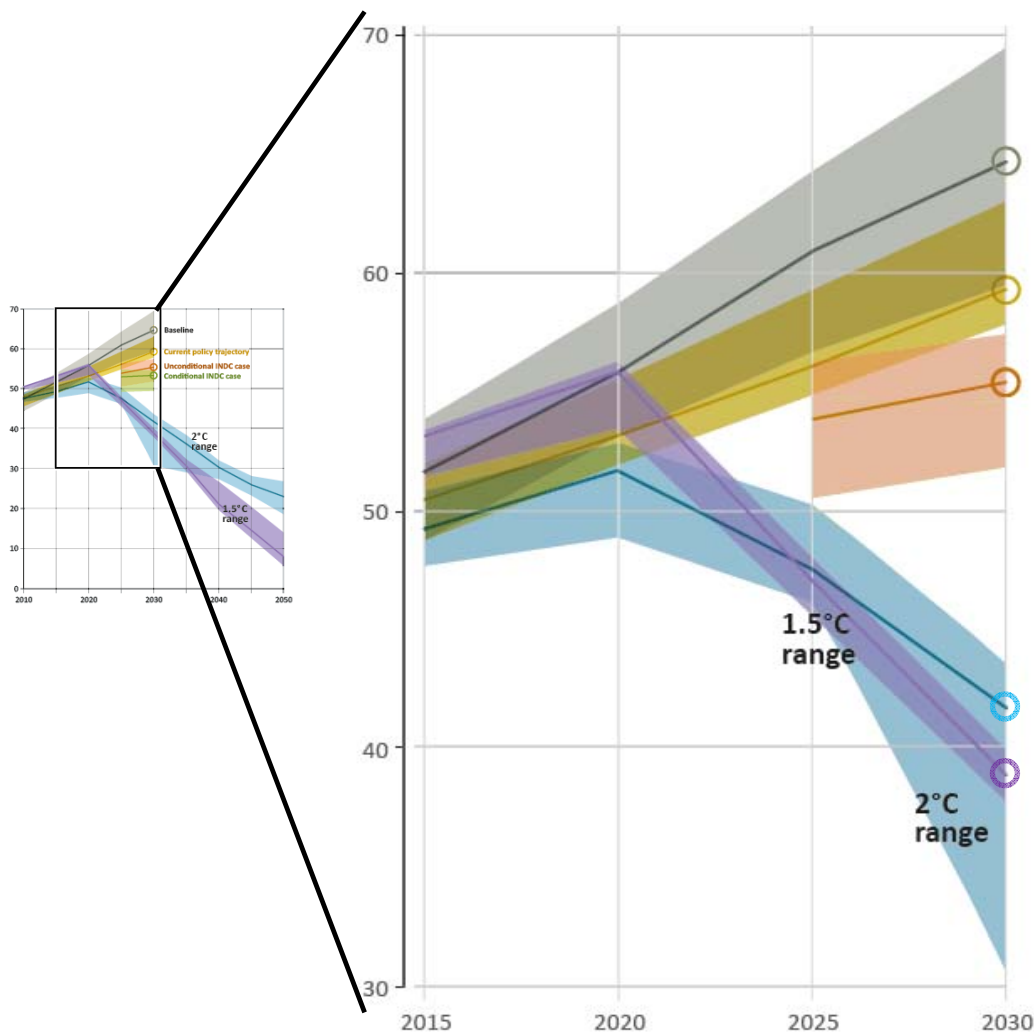
Current policy trajectory
 Global total emissions:
60 GtCO₂e (range: 58-62)

2°C pathways (>66%)
 Global total emissions:
42 GtCO₂e (range: 31-44)

1.5°C pathways (>50%)
 Global total emissions:
39 GtCO₂e (range: 38-40)

NDCs & the Emissions Gap

Annual global total greenhouse gas emissions (GtCO₂e)



Baseline
 Global total emissions:
65 GtCO₂e (range: 60-70)

Current policy trajectory
 Global total emissions:
60 GtCO₂e (range: 58-62)

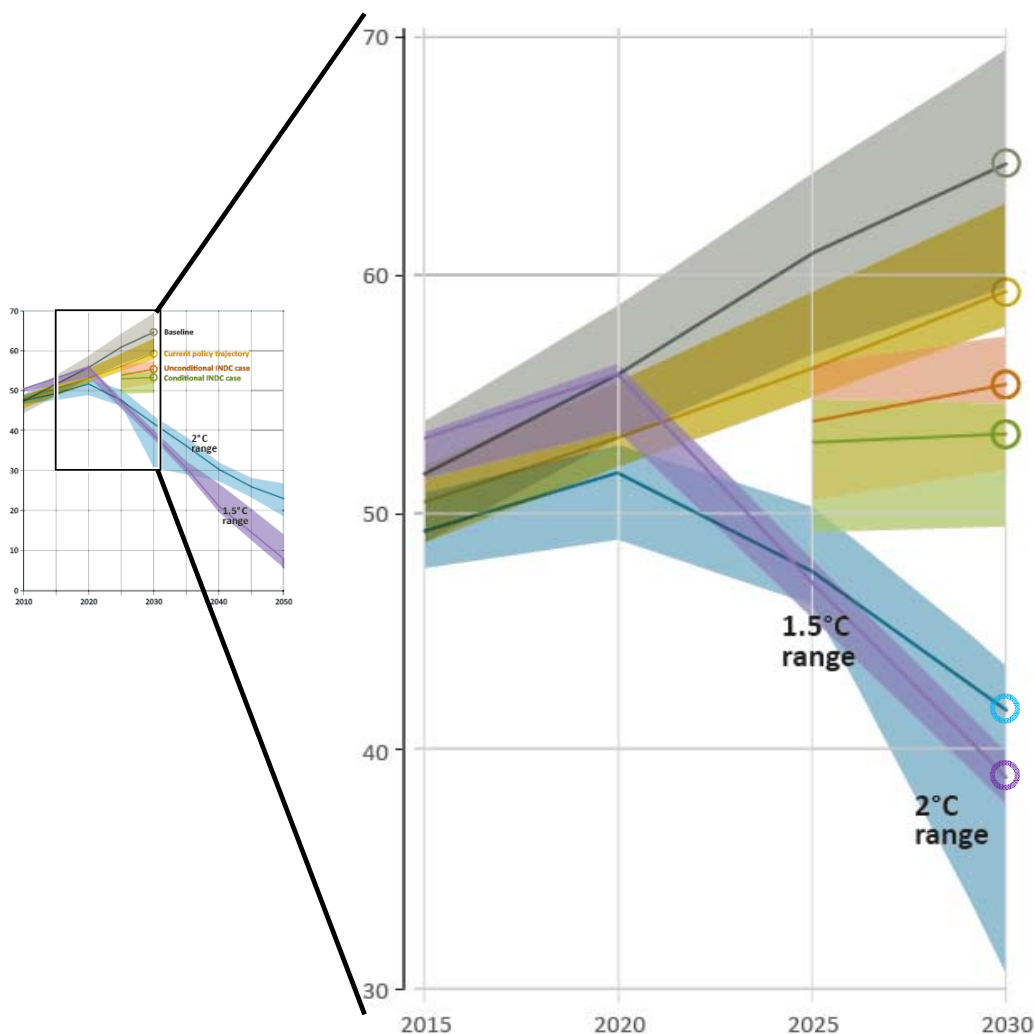
Unconditional INDC case
 Global total emissions:
56 GtCO₂e (range: 54-59)

2°C pathways (>66%)
 Global total emissions:
42 GtCO₂e (range: 31-44)

1.5°C pathways (>50%)
 Global total emissions:
39 GtCO₂e (range: 38-40)

NDCs & the Emissions Gap

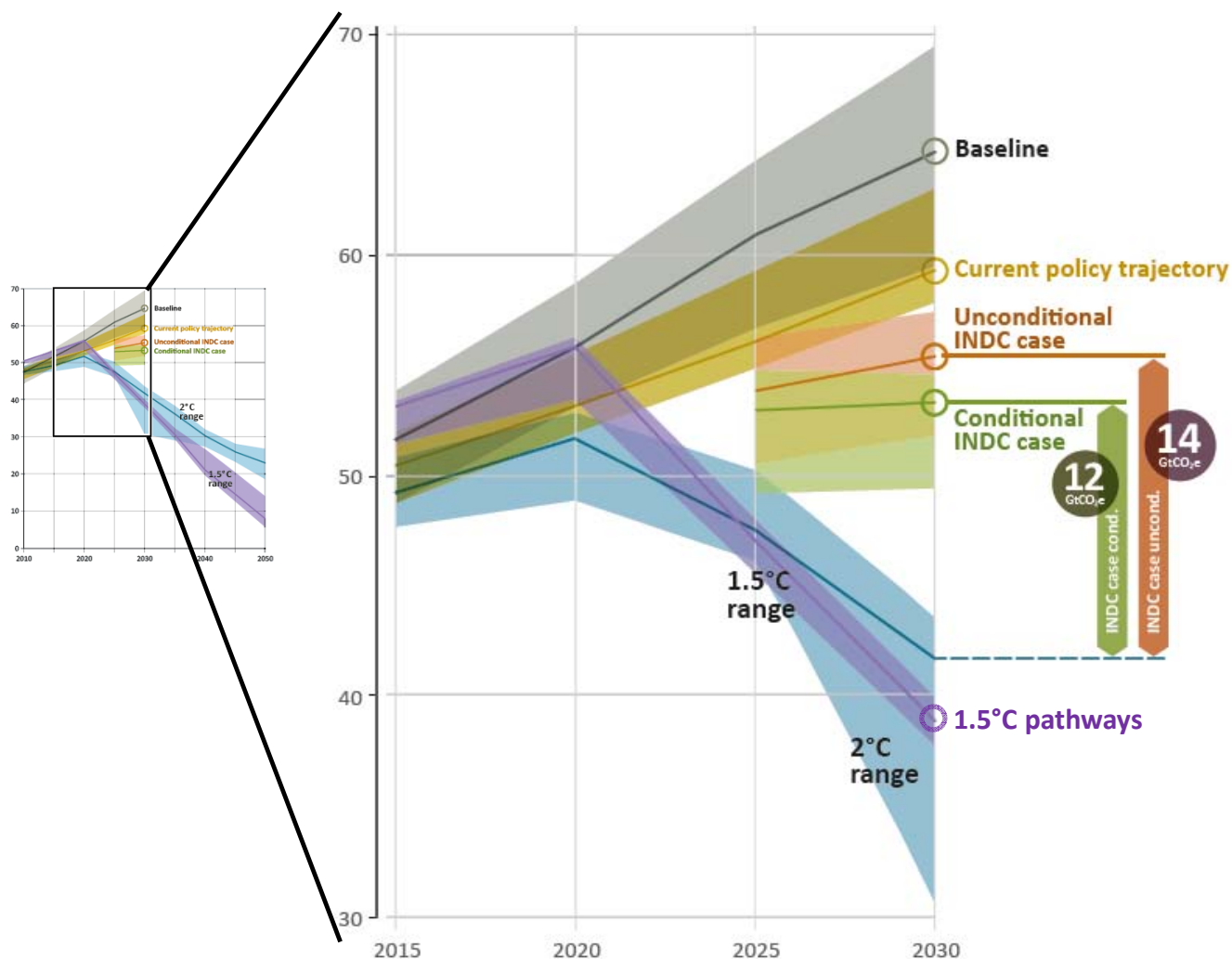
Annual global total greenhouse gas emissions (GtCO₂e)



- Baseline**
 Global total emissions:
65 GtCO₂e (range: 60-70)
- Current policy trajectory**
 Global total emissions:
60 GtCO₂e (range: 58-62)
- Unconditional INDC case**
 Global total emissions:
56 GtCO₂e (range: 54-59)
- Conditional INDC case**
 Global total emissions:
54 GtCO₂e (range: 52-57)
- 2°C pathways (>66%)**
 Global total emissions:
42 GtCO₂e (range: 31-44)
- 1.5°C pathways (>50%)**
 Global total emissions:
39 GtCO₂e (range: 38-40)

NDCs & the Emissions Gap

Annual global total greenhouse gas emissions (GtCO₂e)

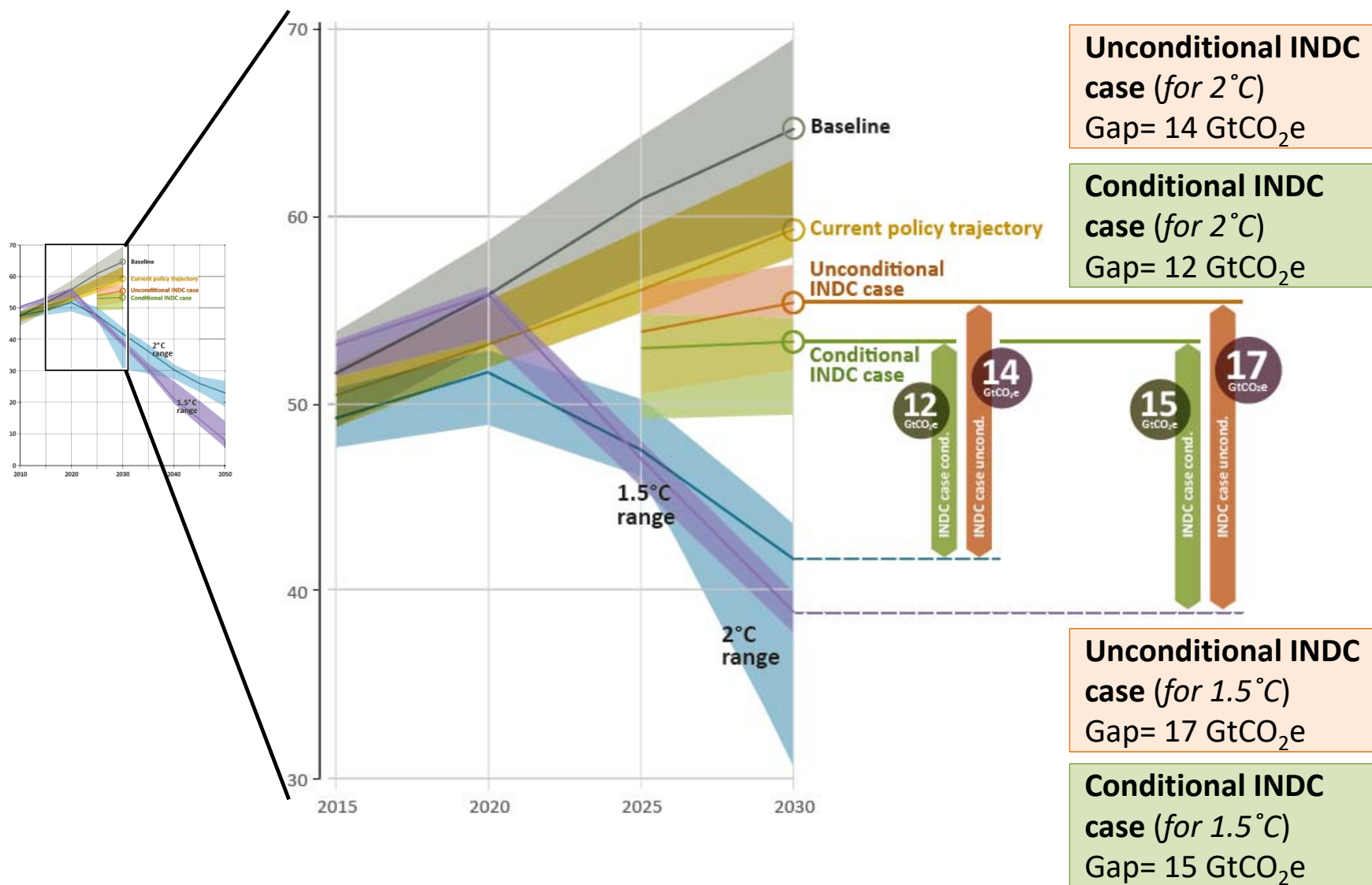


Unconditional INDC case (for 2°C)
 Gap= 14 GtCO₂e

Conditional INDC case (for 2°C)
 Gap= 12 GtCO₂e

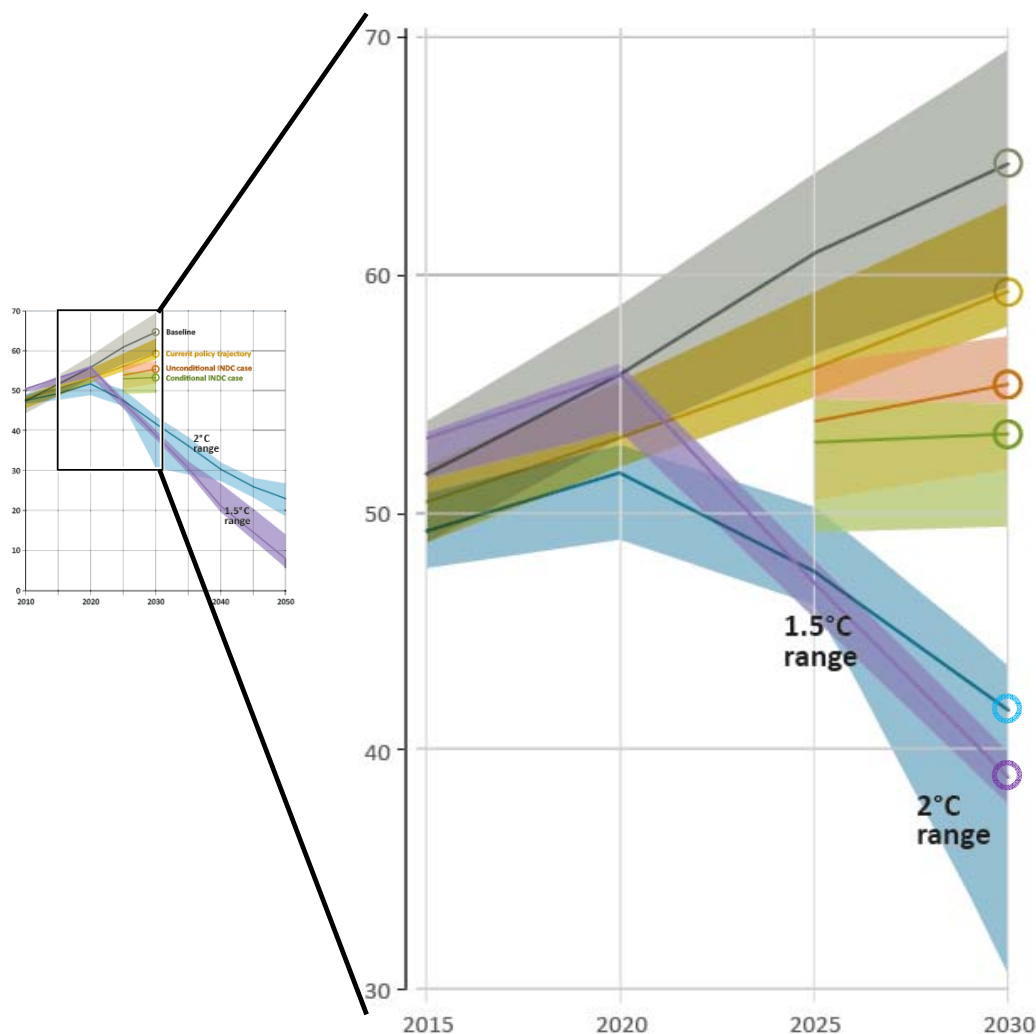
NDCs & the Emissions Gap

Annual global total greenhouse gas emissions (GtCO₂e)



NDCs & the Emissions Gap

Annual global total greenhouse gas emissions (GtCO₂e)



NDCs represent a first start to initiate the required transition, but are far from consistent with the well below 2°C / 1.5°C temperature goals

Full implementation of unconditional NDCs is consistent with staying below a 3.2°C temperature increase by 2100. Additional implementation of conditional NDCs lowers this by about 0.2°C

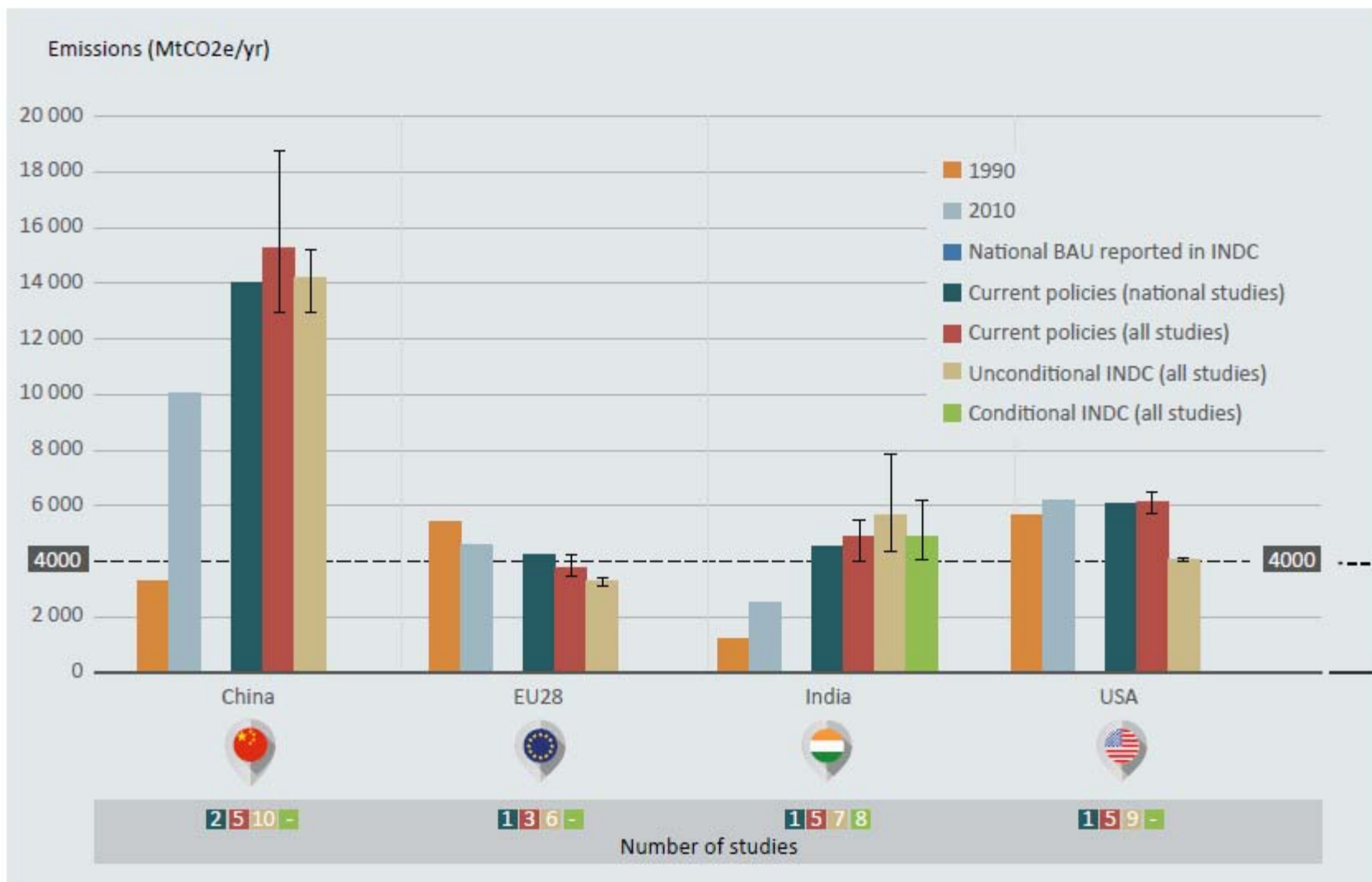
By 2030, carbon dioxide budgets for a likely chance of limiting temperature increase to below 2°C will be close to depleted under INDC implementation and well exceeded for the 1.5°C target

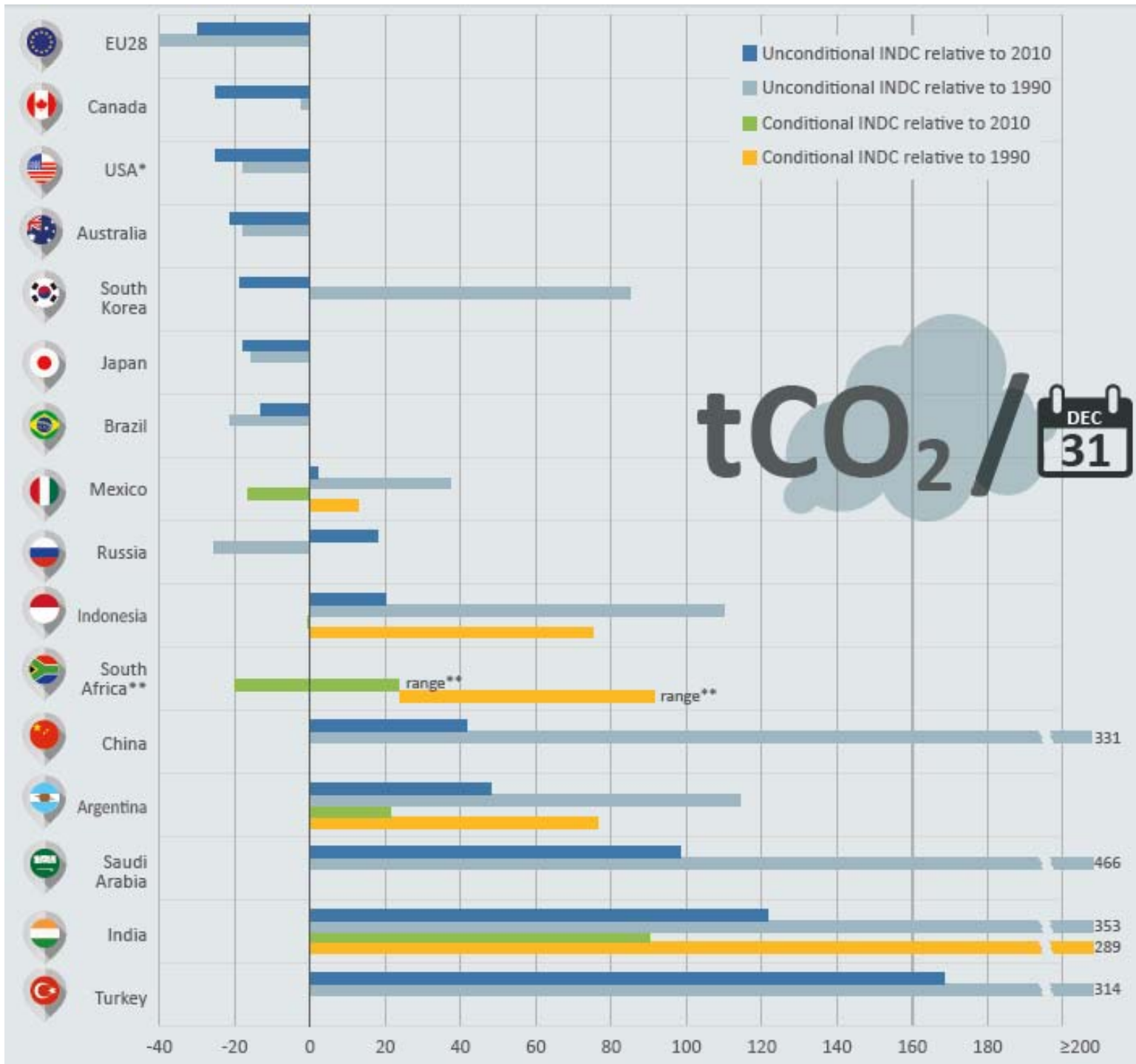
What will be the contribution of Nationally Determined Contributions to the temperature target?

- Even if fully implemented, the unconditional Intended Nationally Determined Contributions are only consistent with staying below an increase in temperature of 3.2°C (2.9 – 3.4) by 2100 with greater than 66 per cent probability, and 3.0°C, if conditional Intended Nationally Determined Contributions are included
- This is lower than the 3.6 °C (3.4 – 3.7) under the current policies but represents far less than is needed

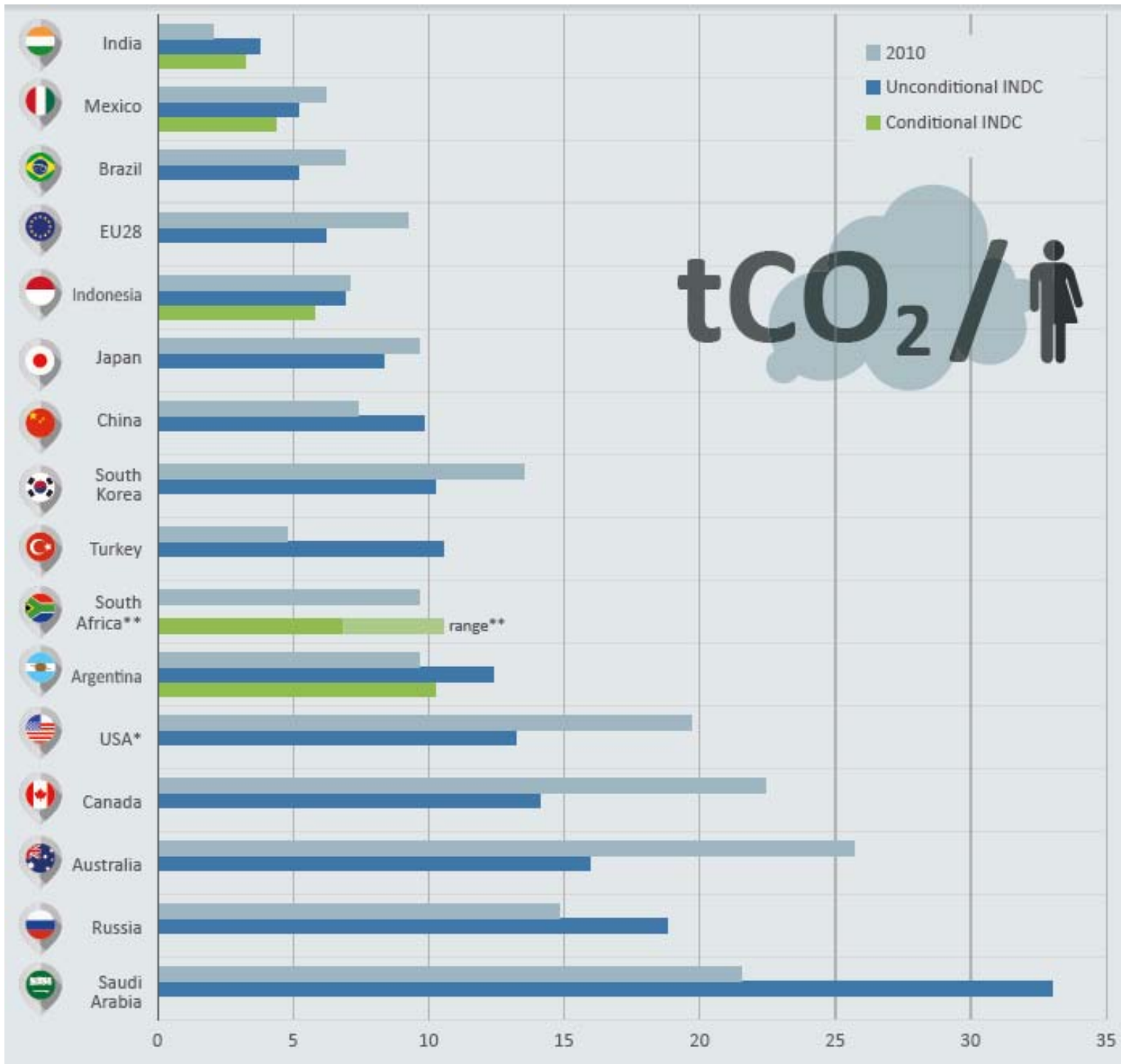
Understanding the mitigation efforts of the NDCs: country-level

GHG emissions under the NDC, current policies & BAU scenario for G20 countries in 2030

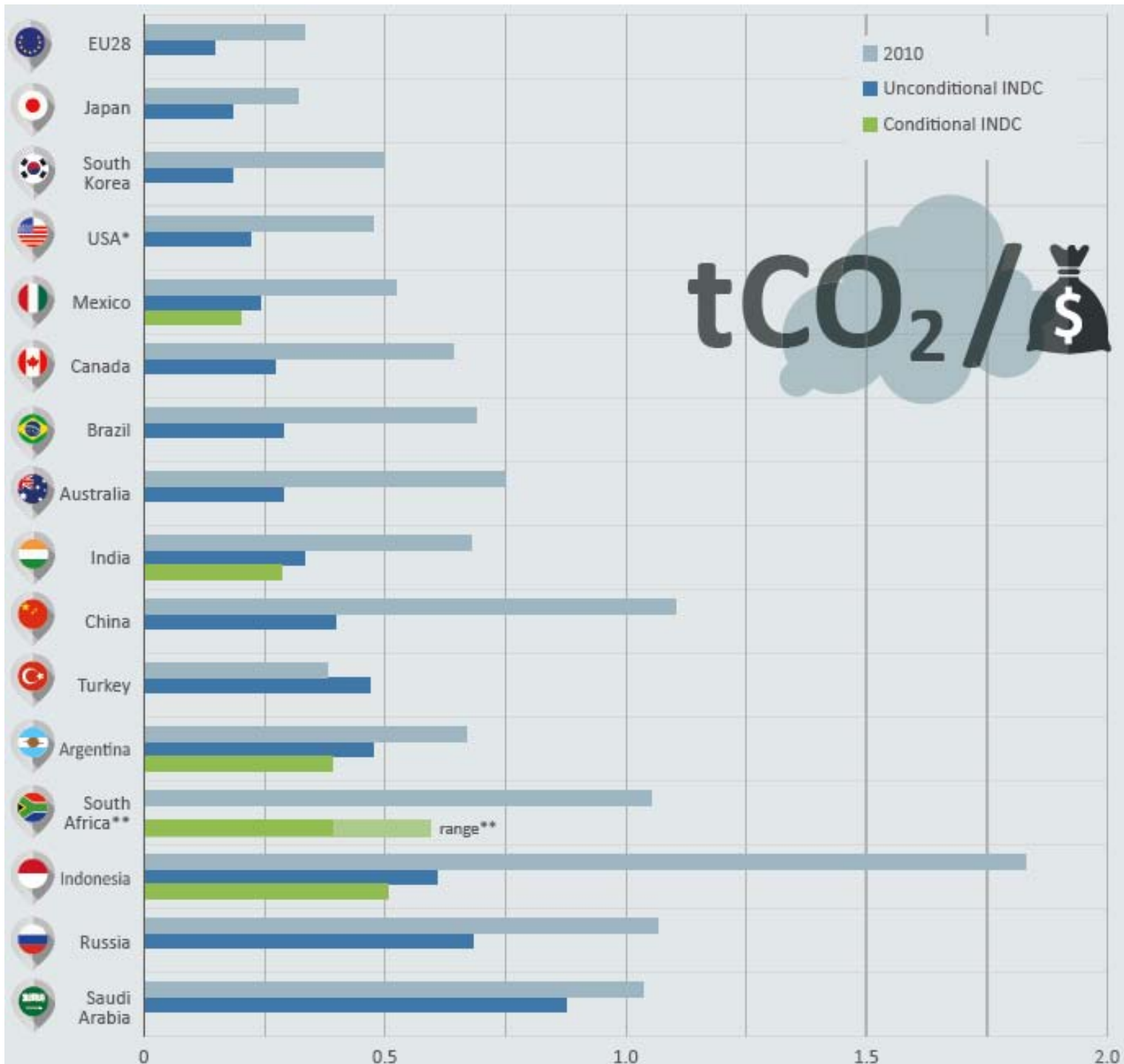




Countries ranked to Emissions relative to 2010, with EU, Canada and US the highest reductions, and India and Turkey the highest increase compared to 2010 levels



Countries ranked to per capita emissions in 2030, with the low estimates for India, Mexico, Brazil, and high values for the US, Canada. The highest estimates for Russia and Saudi Arabia



Countries ranked to Emissions intensity of national economy, with the lowest for the EU and Japan, and the highest values for Russia and Saudi Arabia

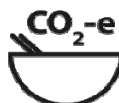
Bridging the gap – Key sectors and options



RE ↑



CO₂ ↓



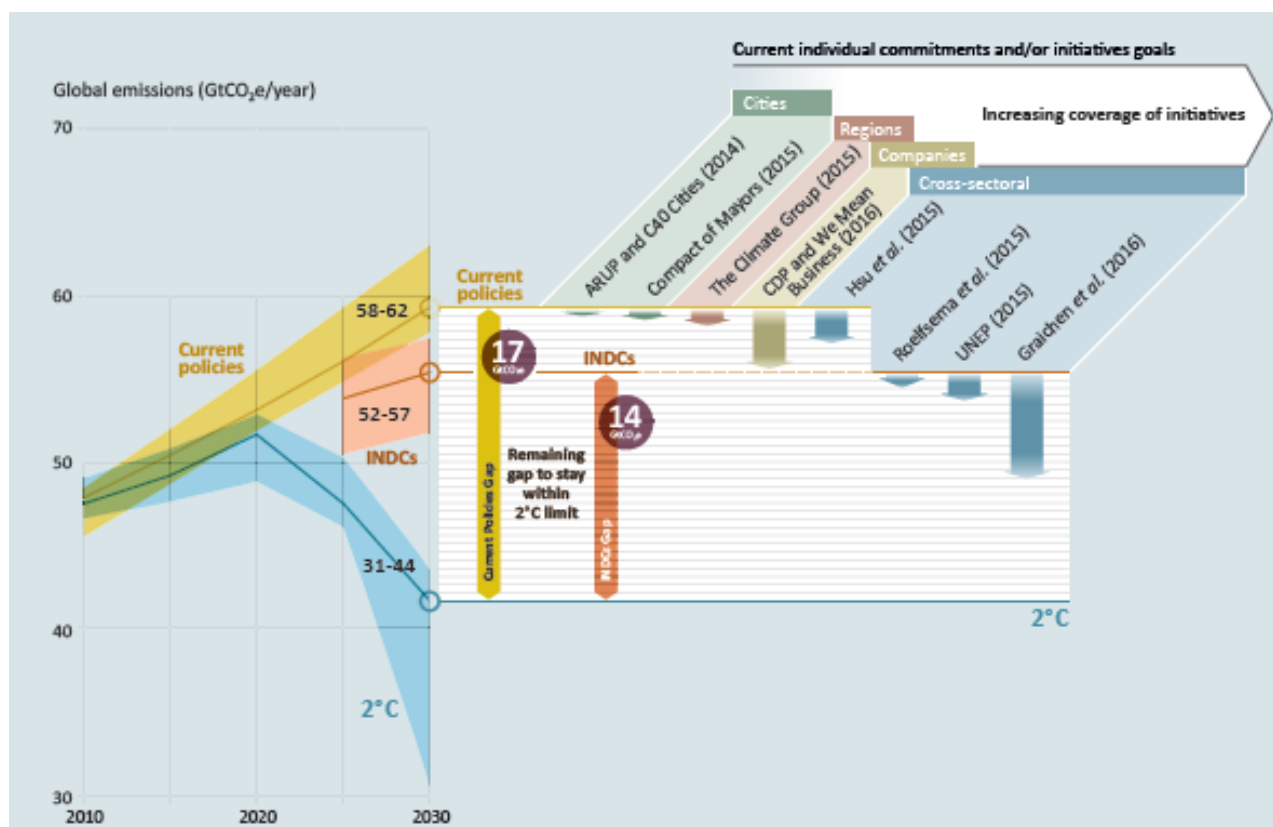
Sectors and options assessed include:

- Energy and energy efficiency
- Renewable energy
- Transport
- Agriculture
- Forestry
- Non-state action

All have / are driven by significant sustainable development benefits

Bridging the gap – non-state actor initiatives

- More than 10,000 climate commitments
- Credibility and transparency varies between initiatives
- Formalised reporting gradually being strengthened
- Contribution to closing the Emissions Gap may be significant



The Paris Agreement and the SDGs

- Climate action directly affects and is affected by efforts to achieve many of the other SDGs
- Impacts of climate change may undermine achievement of SDGs
- Failure to enhance mitigation ambition will have even more significant implications post-2030



Alignment	SDG	Topic
Path-aligned	SDG7	Sustainable Energy Access
	SDG11	Sustainable Cities
	SDG12	Sustainable consumption and production
	SDG15	Terrestrial Ecosystems
Path-contingent	SDG2	Hunger and food security
	SDG8	Growth and employment
	SDG9	Infrastructure, industrialization, and innovation

Summing up

Key role of enhanced clarity, transparency and understanding:

- Higher accuracy of assessment of national and global trends, efforts and ambition
- Improve policy scenarios and analysis
- Identify policies and options for enhancing ambition