NEW CLIMATE INSTITUTE

INDCs and the 2°C limit - Assessment and options for revising

Global workshop on INDCs

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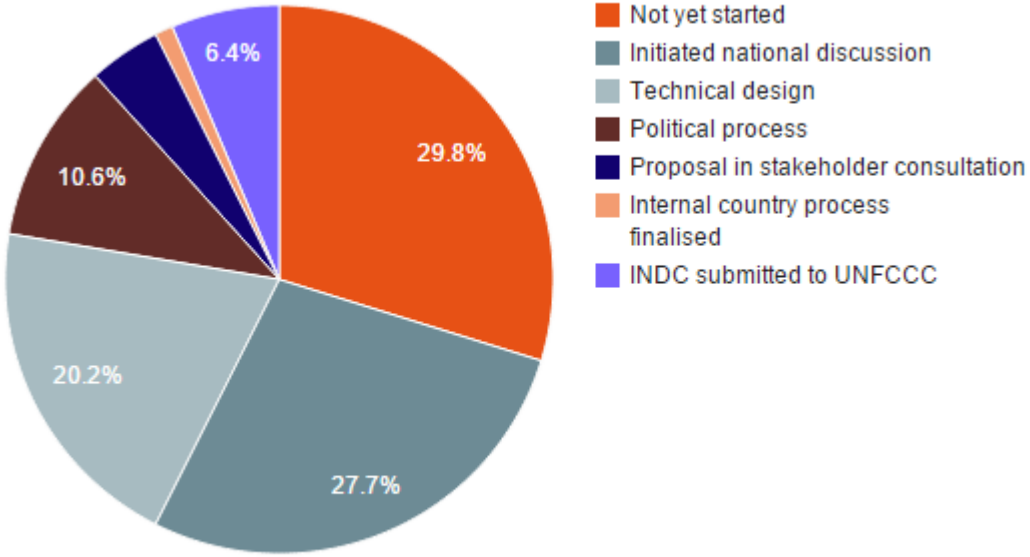
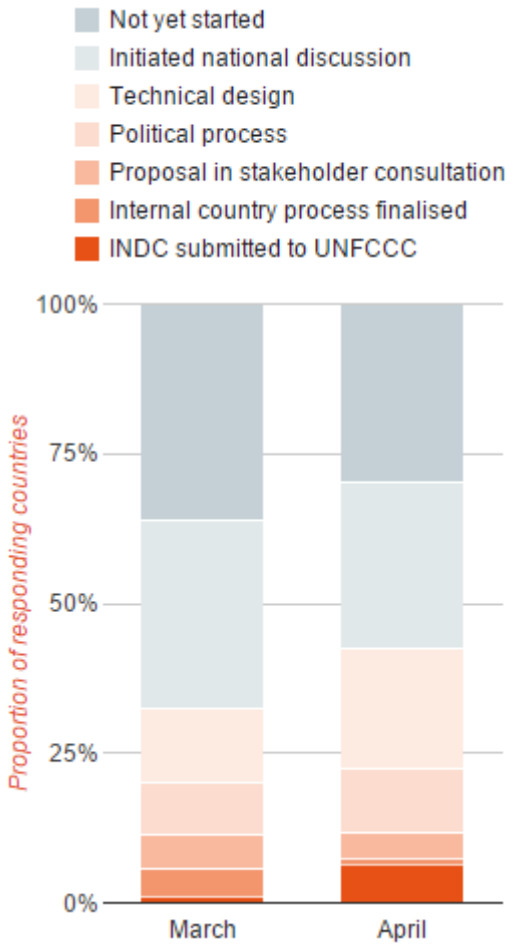
Content

- Progress in INDC preparation world wide
- Assessment of progress towards 2°C/1.5C goal
- Options for revisiting the INDCs

Progress of INDC preparation worldwide

Progress of INDC preparation worldwide

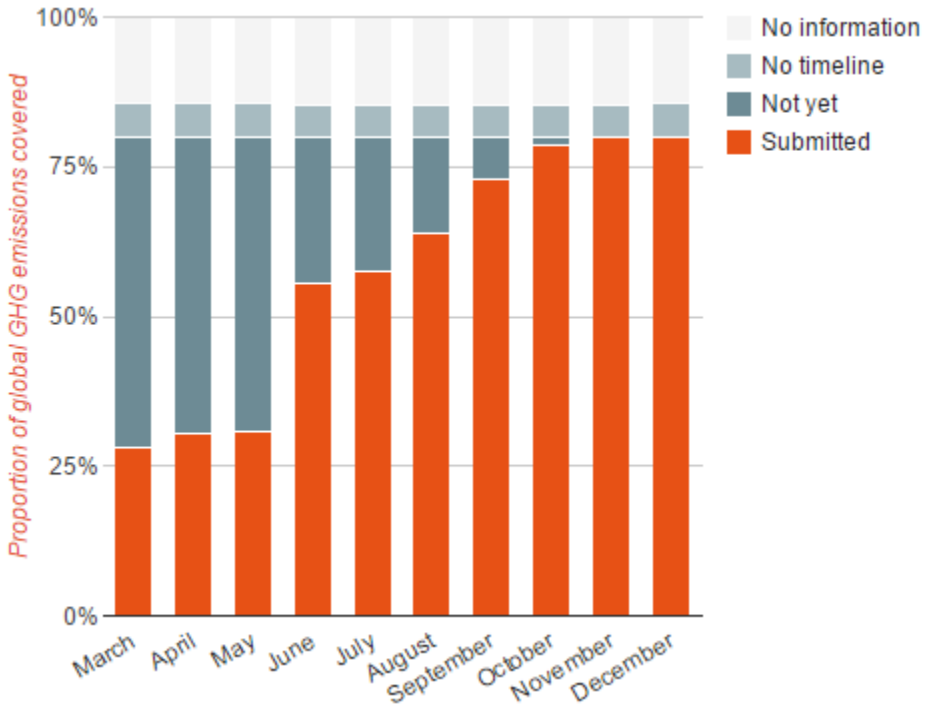




- 70% of consulted countries have started their INDC processes
- 7 INDCs have been submitted to the UNFCCC

Progress of INDC preparation worldwide

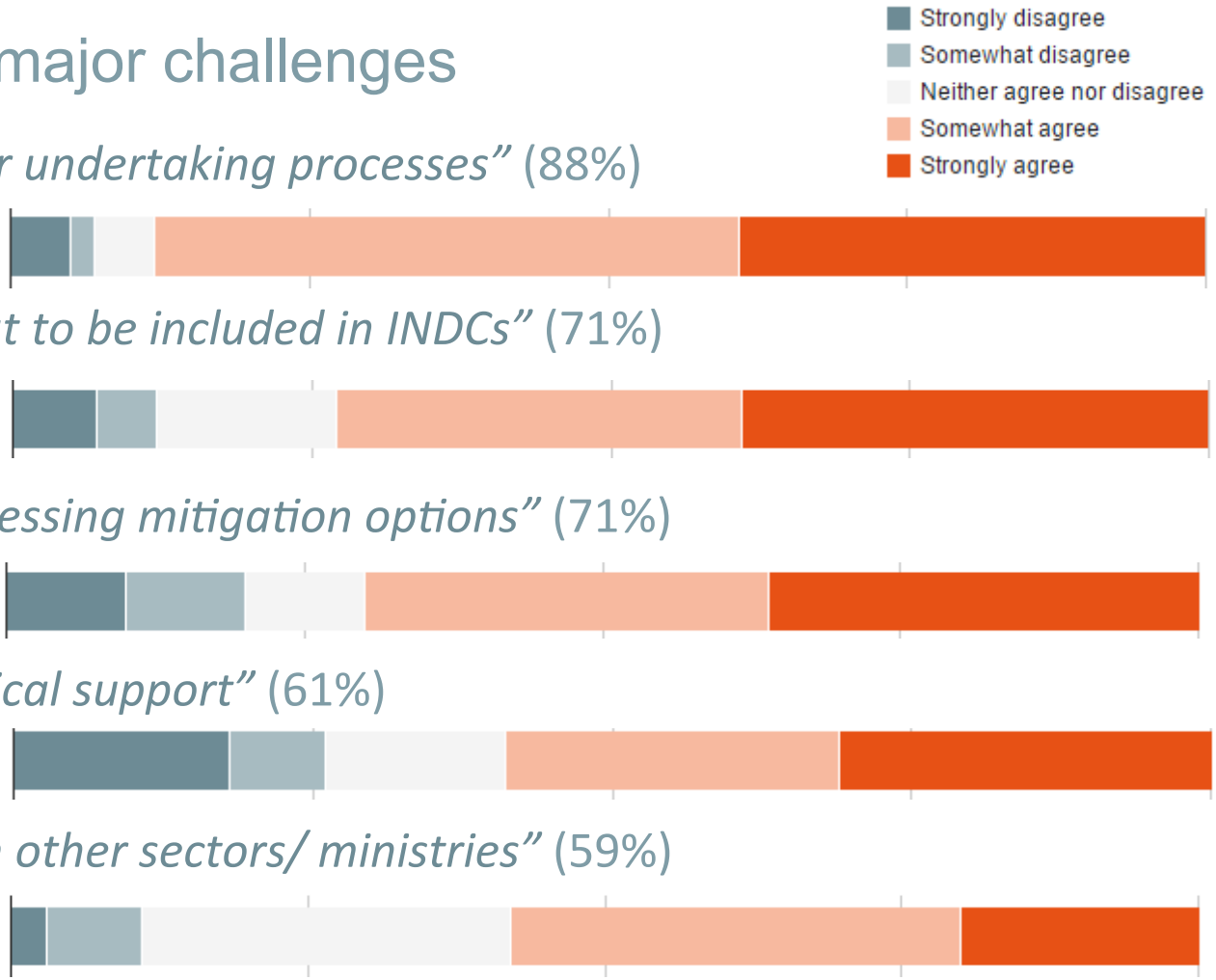
- Submissions will cover over half of global emissions by the end of June
- Most countries plan to submit INDCs before October



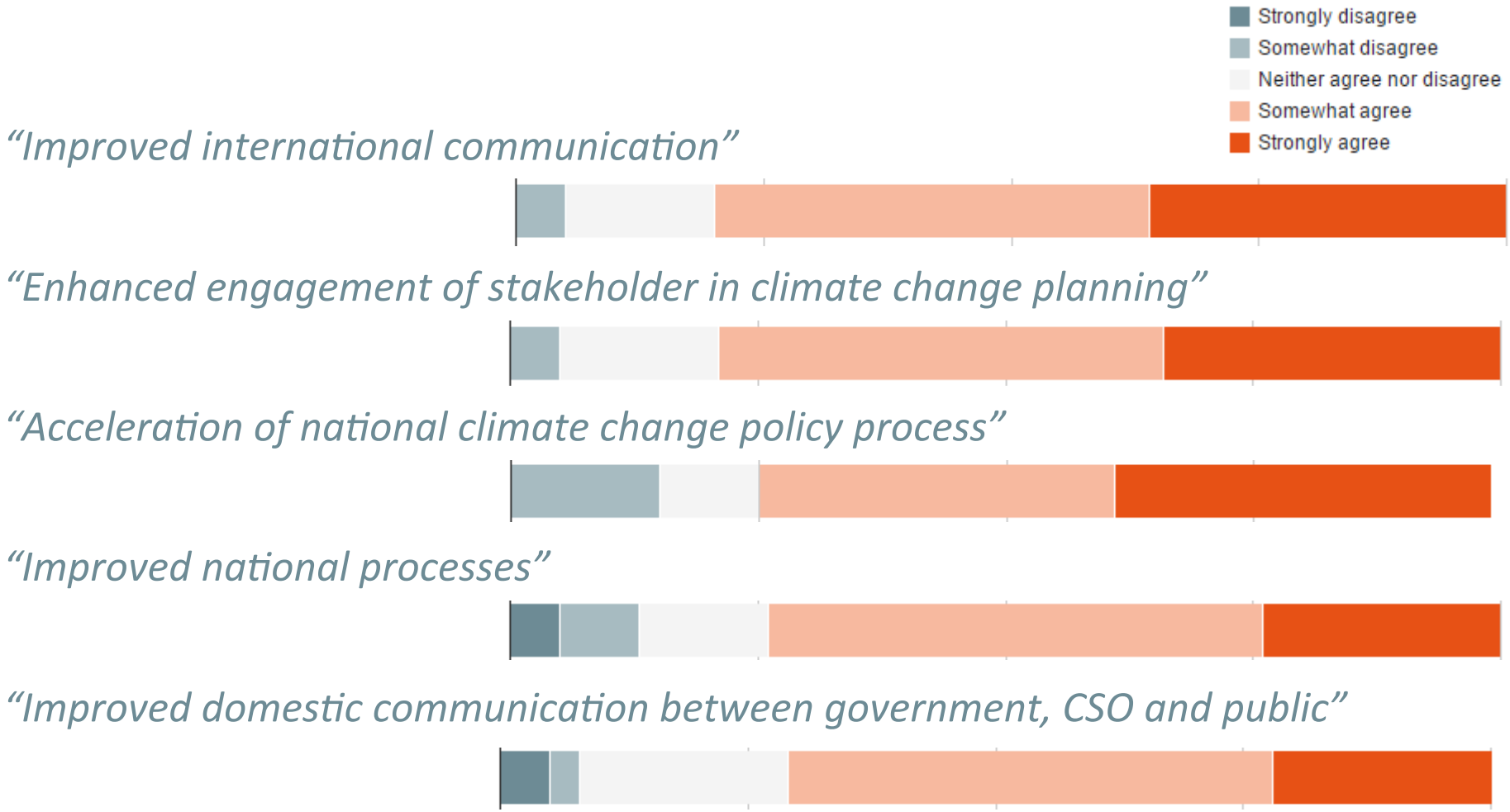
Further statistics and results on INDC preparations available at newclimate.org

Challenges in INDC preparation

- Countries report 5 major challenges



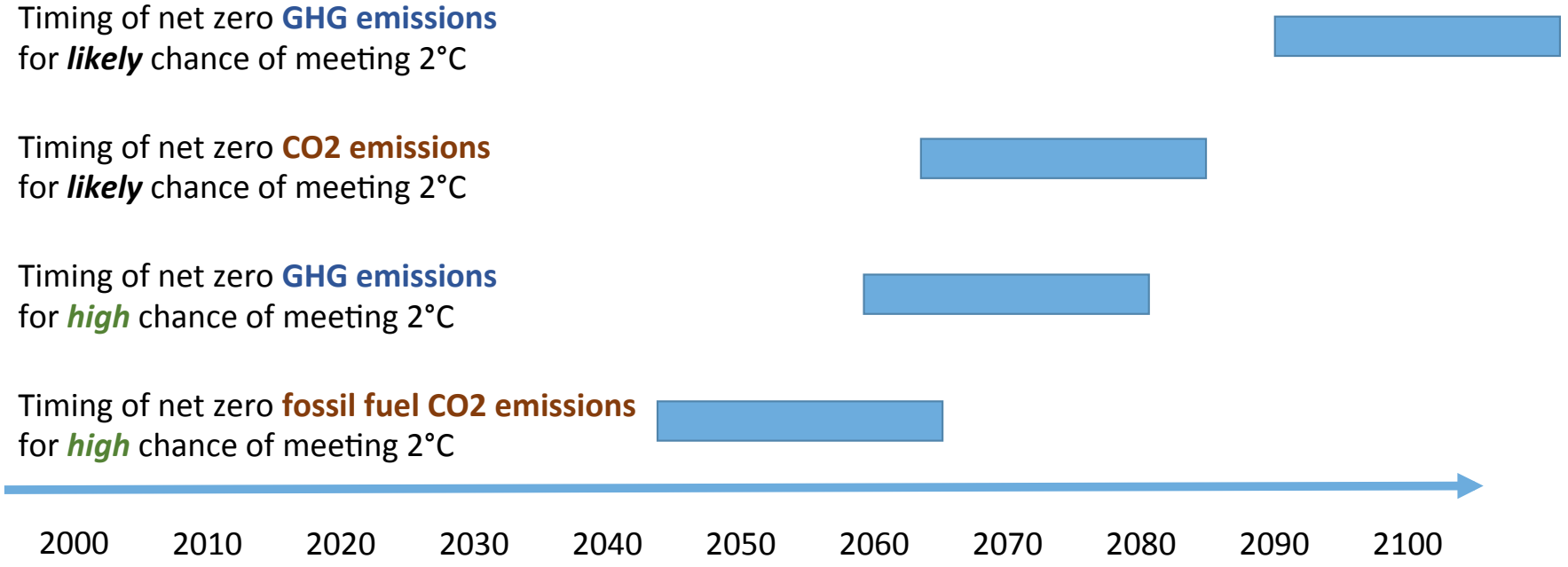
Opportunities from the INDC process



Assessment towards the global 2°C / 1.5°C limit

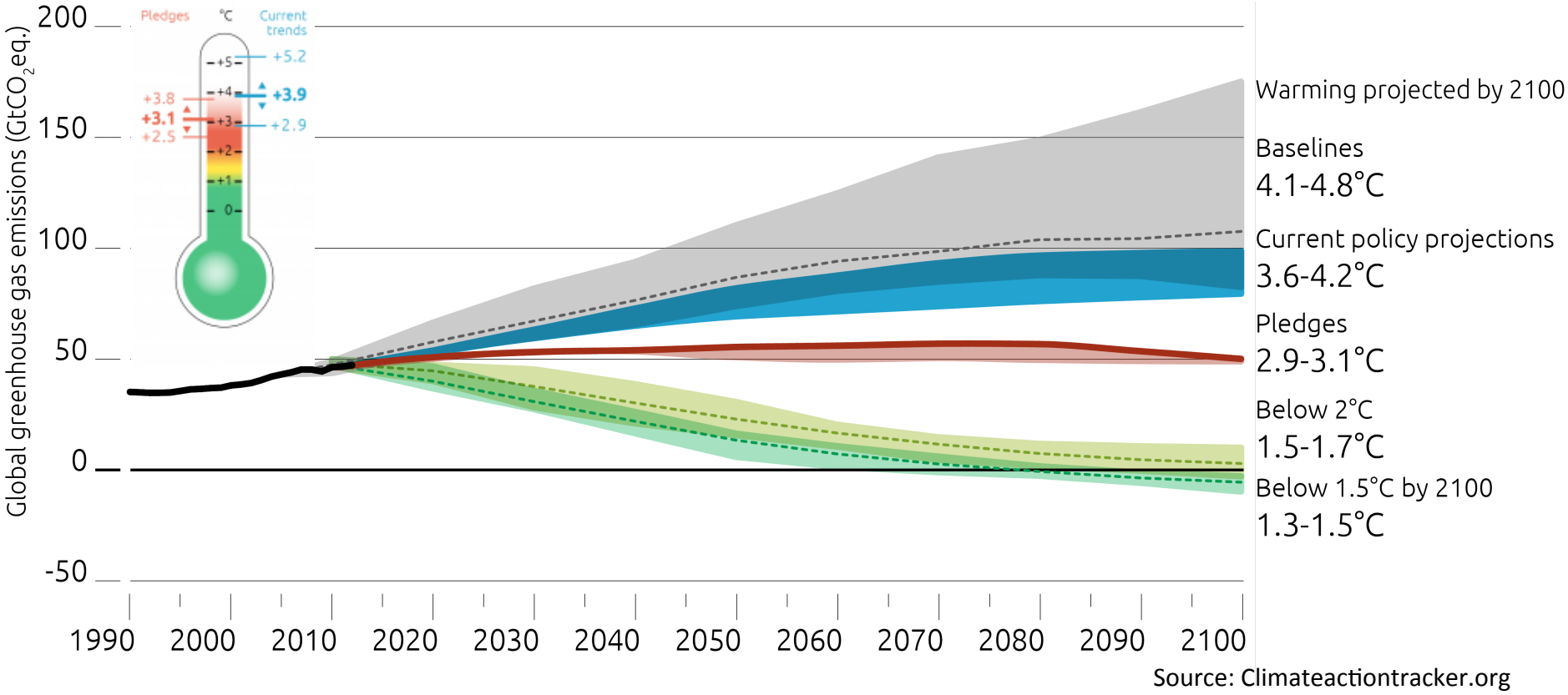
2°C means "phasing out" global GHG emissions

Timing of phase out based on IPCC scenario database



Source: IPCC database and www.climateactiontracker.org

Collective progress towards the 2°C/ 1.5°C limit



Source: Climateactiontracker.org

The INDCs submitted/announced so far have for the first time since 2009 significantly changed our temperature estimate for 2100

Showing that the INDC is fair, ambitious and compatible with 2°C

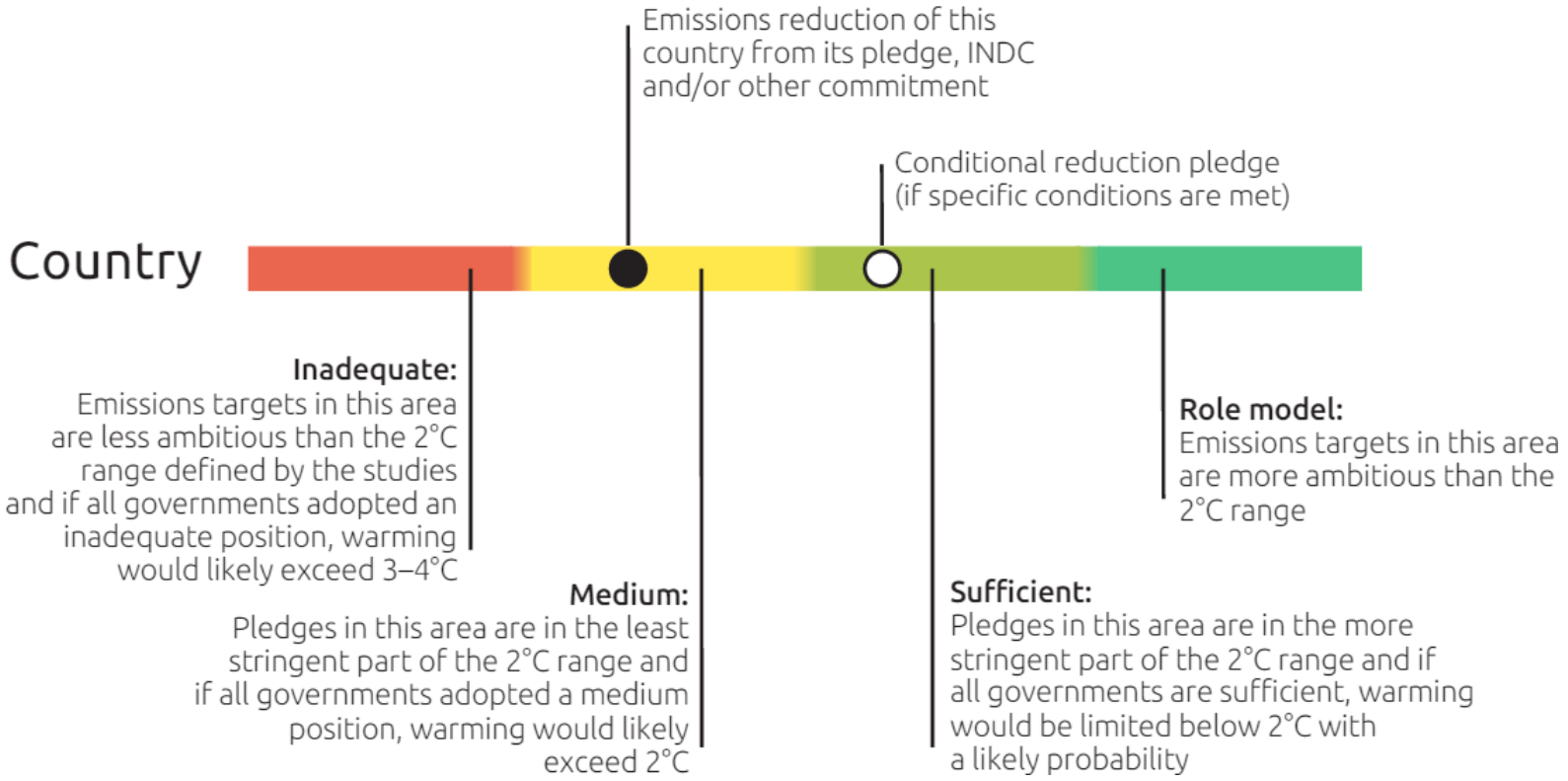
Lima decision: information on "how the Party considers that its INDC is **fair and ambitious**, in light of its national circumstances, and how it contributes towards achieving the objective of the Convention as set out in its Article 2"

Options:

- Comparison to calculations of what is "fair" – "effort sharing"
- Comparison to model runs that share reduction so that global costs are minimized - "least cost scenarios"
- Comparison to good practice policy package
- Comparing decarbonisation indicators
- Showing co-benefits

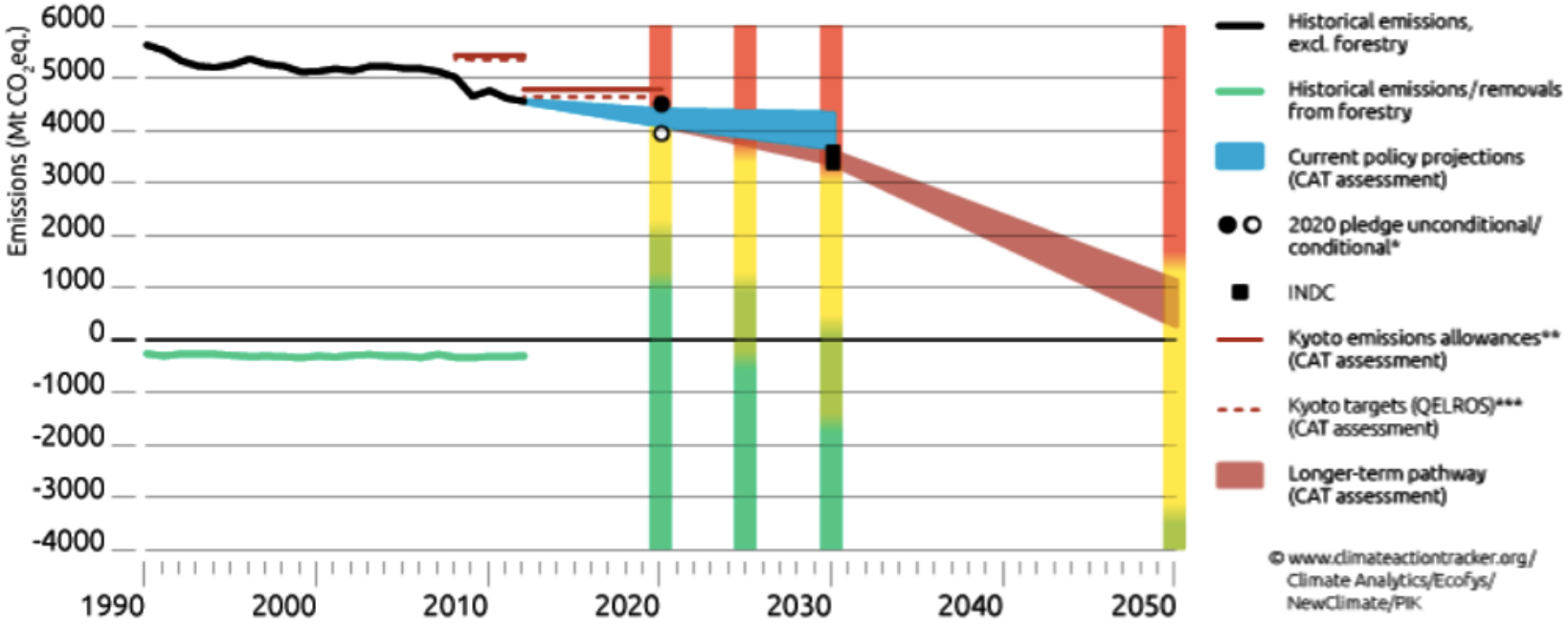
Assessing national INDCs against what could be considered "fair"

Translating the global level compatible with 2°C to a country level range, based on a full range of equity principles and respective calculations from the literature



Source: Climateactiontracker.org

INDC of the EU



* Emissions level in 2020 resulting from conditional/unconditional pledge. This differs from the Kyoto pathways as it depicts final 2020 levels whereas the Kyoto emissions allowances consider the average level of emissions over the second commitment period (2013-2020).

** Incl. LULUCF credits and debits, incl. LULUCF base year emissions accounting rules and application of historical threshold on emissions allowances in 2020 under the Doha decision.

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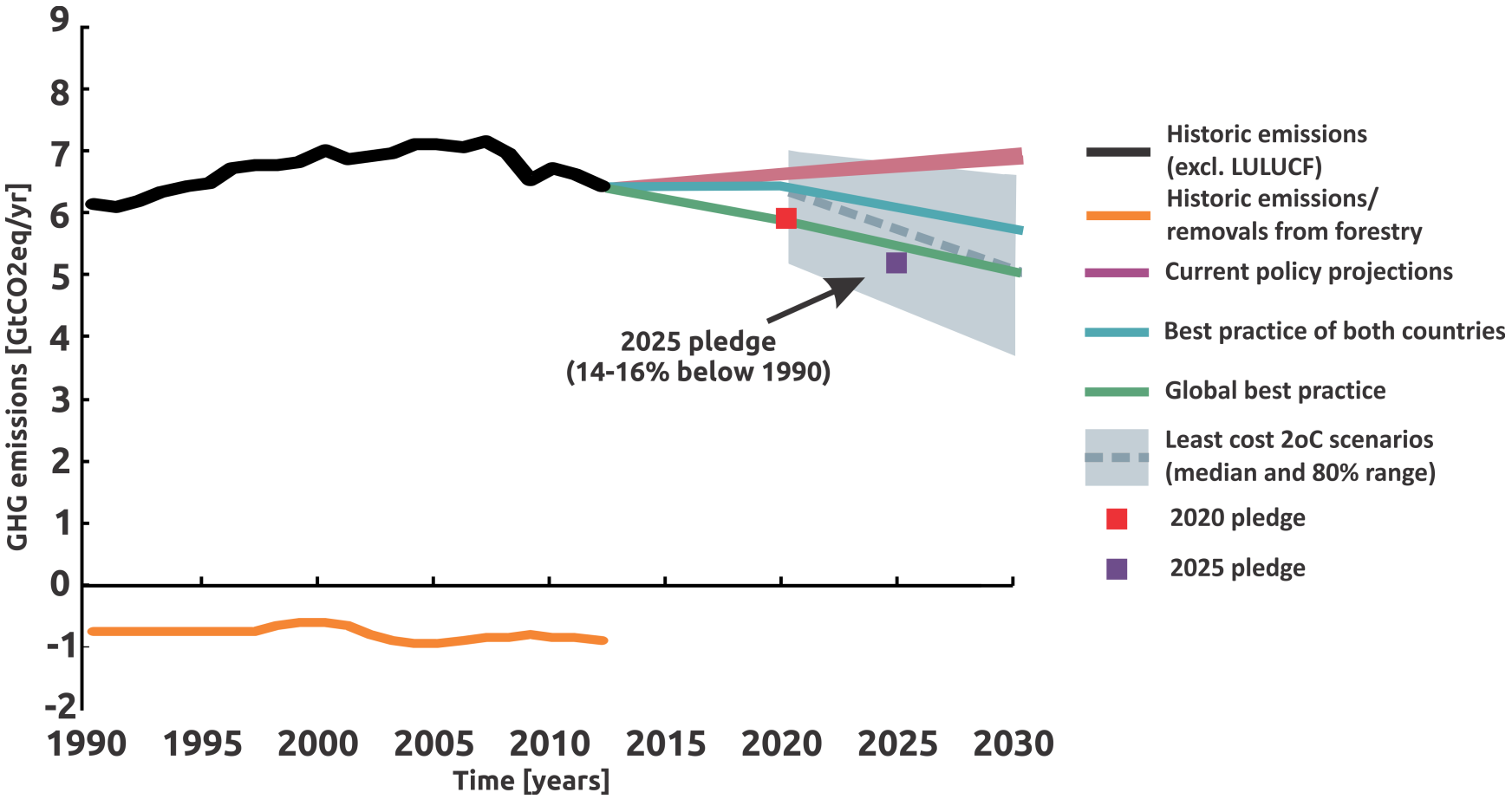
Source: Climateactiontracker.org

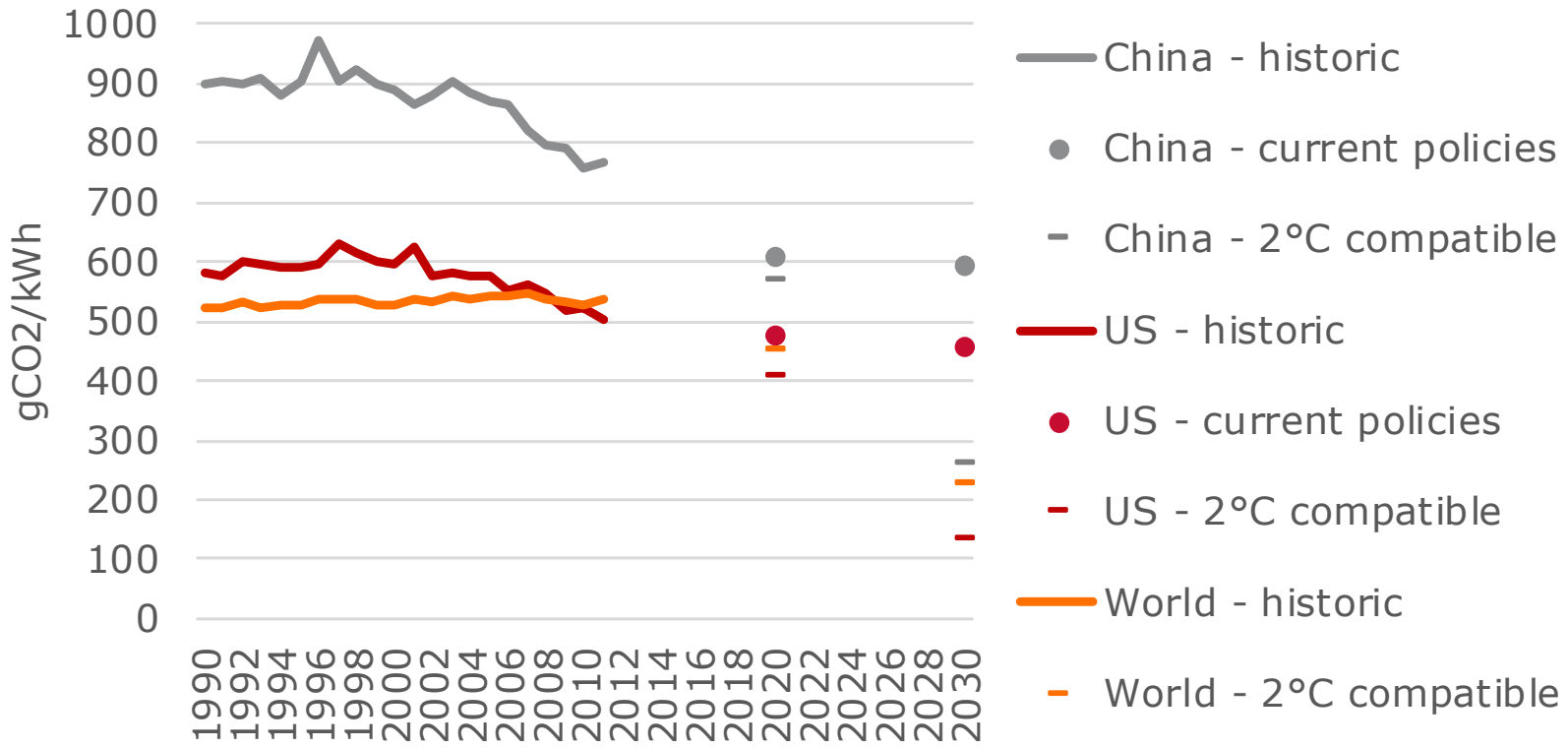
INDC of the USA



Source: Climate Action Tracker

http://climateactiontracker.org/assets/publications/briefing_papers/CAT_briefing_China_and_the_US__how_does_their_climate_action_compare.pdf

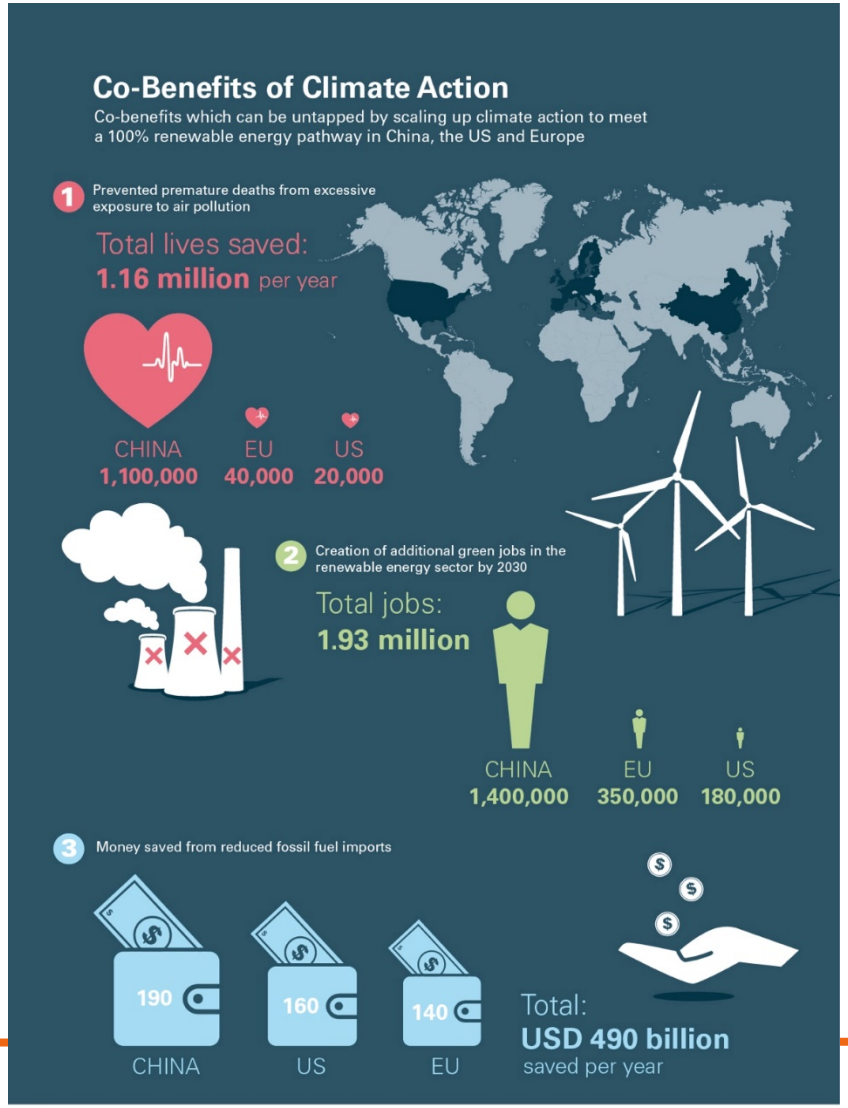
Comparison to decarbonisation indicators



Source: Climate Action Tracker

http://climateactiontracker.org/assets/publications/briefing_papers/CAT_briefing_China_and_the_US__how_does_their_climate_action_compare.pdf

Assessment of (co-)benefits of INDCs



More (co-)benefits could be achieved, if INDCs were 2°C compatible:

- Heath benefits
- Jobs
- Reduced fossil fuel imports

Source: Assessing the missed benefits of countries' national contributions http://newclimate.org/2015/03/27/indc-cobenefits/

Options for revisiting INDCs

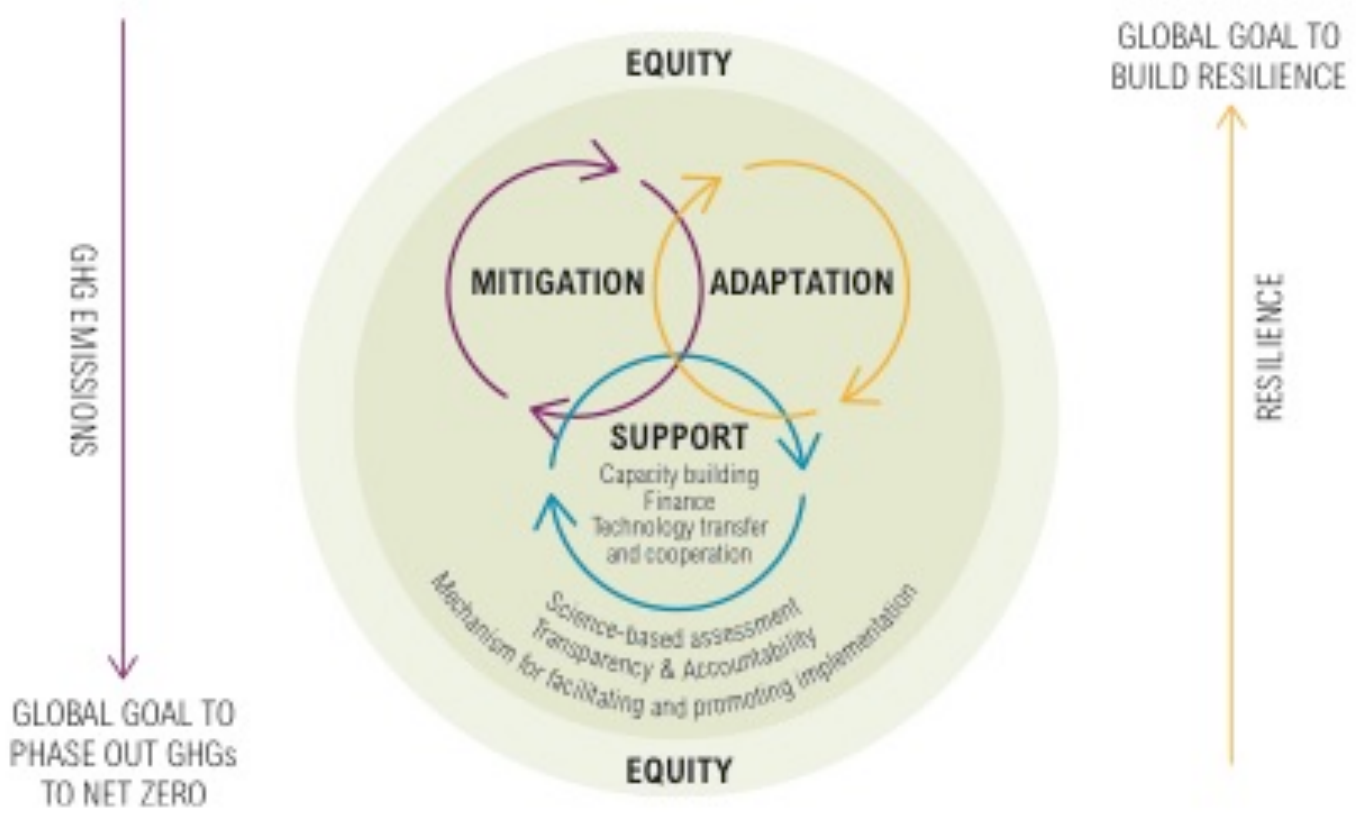
What is next?

- Clarify, revise INDCs before/at Paris

- Implement the NDCs
- Monitor the implementation of NDCs

- Propose new INDCs

Cycle of revising proposals

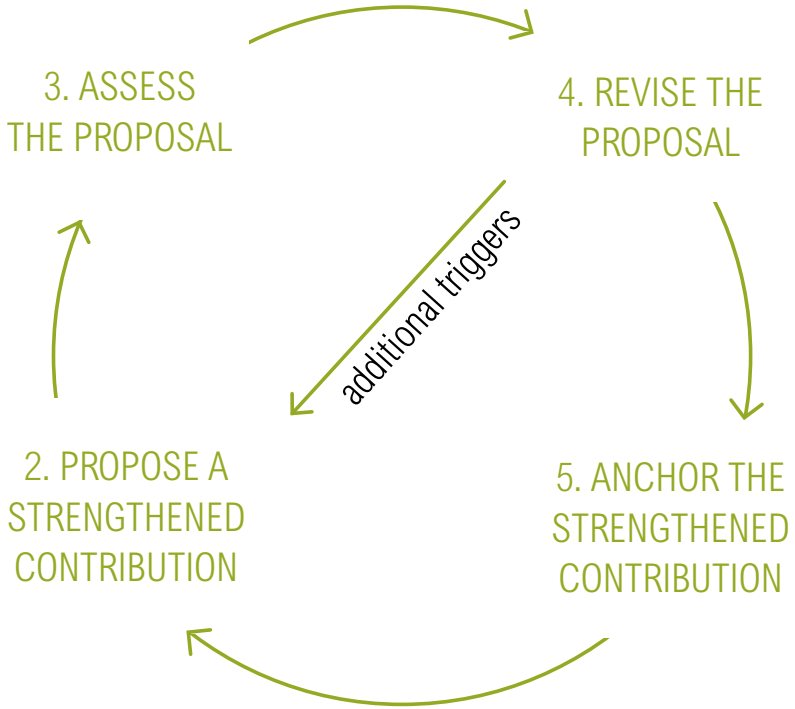


Source: Elements and ideas for the 2015 Paris agreement: executive summary, http://www.wri.org/sites/default/files/uploads/ACT_2015_Elements_Ideas_ExSum_FINAL_2.pdf

Cycle on mitigation

1. INPUTS & ASSESSMENT TOOLS:

- Review of implementation (existing)
- Global aggregate assessment between long-term goal & implementation (existing)
- Equity assessment (new)
- Guidance on how to increase ambition (new)
- Assessment of support (new)



Source: Race to the top: driving ambition in the post-2020 international climate agreement, http://act2015.org/ACT%202015_RacetotheTop.pdf

Conclusions

- INDC preparation underway with 50% emissions covered by June and over 80% by September and advances national climate policy processes
- Submitted/announced INDCs have shown effect on temperature by 2100, but gap remains
- Multiple ways are available to assess fairness and ambition
  - Comparison to calculations of what is “fair”
  - Comparison to “global least cost scenarios”
  - Comparison to good practice policy package
  - Comparing decarbonisation indicators
  - Showing co-benefits
- Continuous cycle of improved mitigation, adaptation and support necessary

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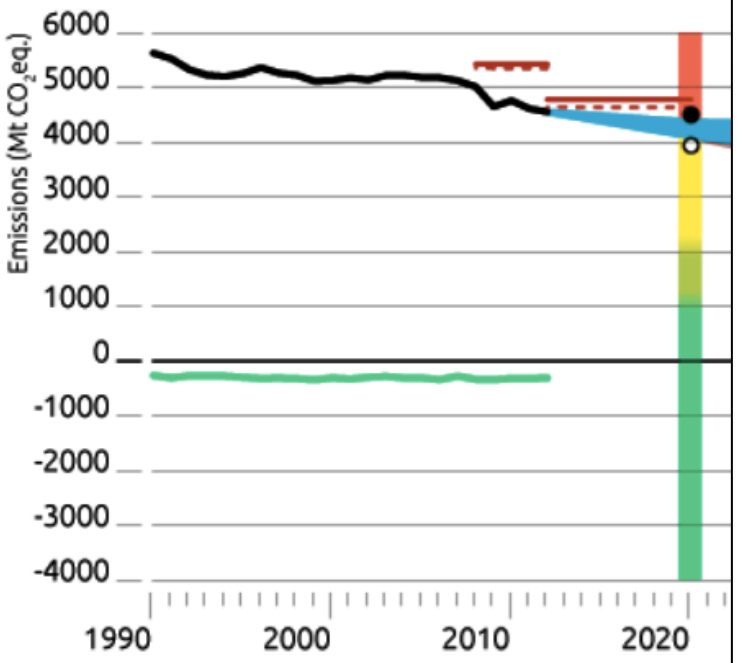
Backup slides

INDC of EU



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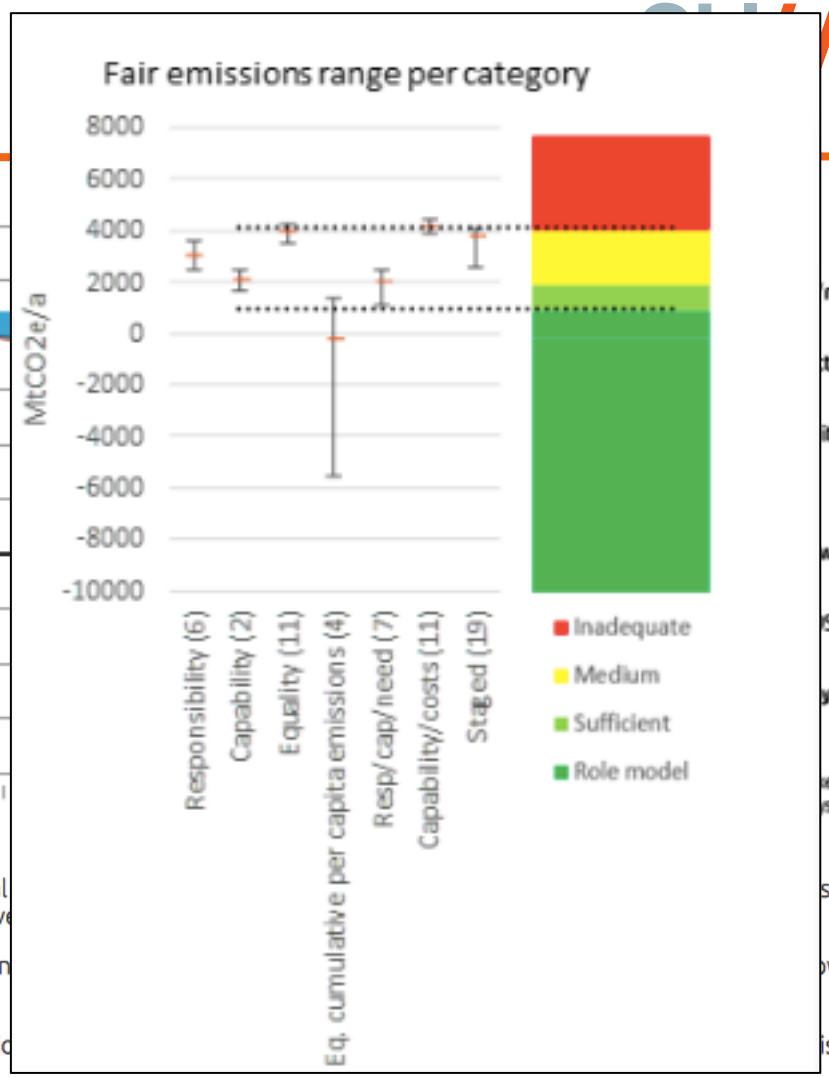
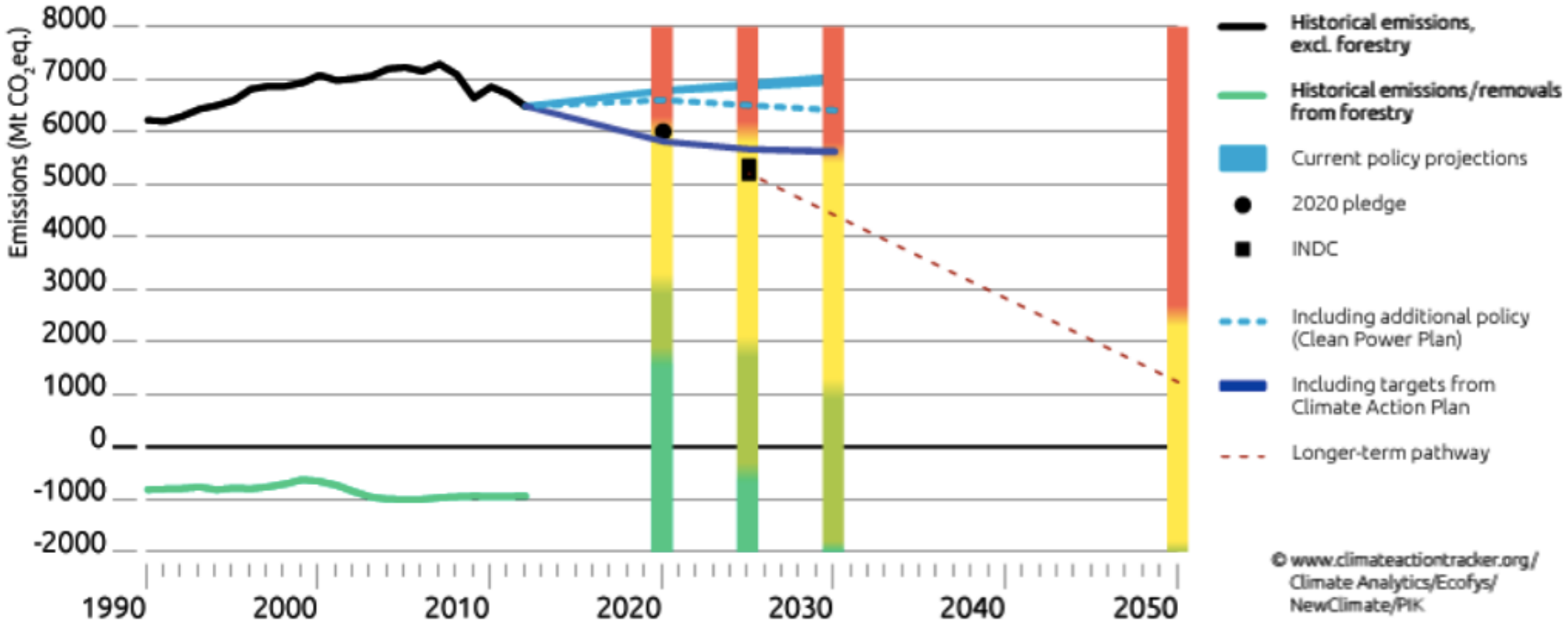


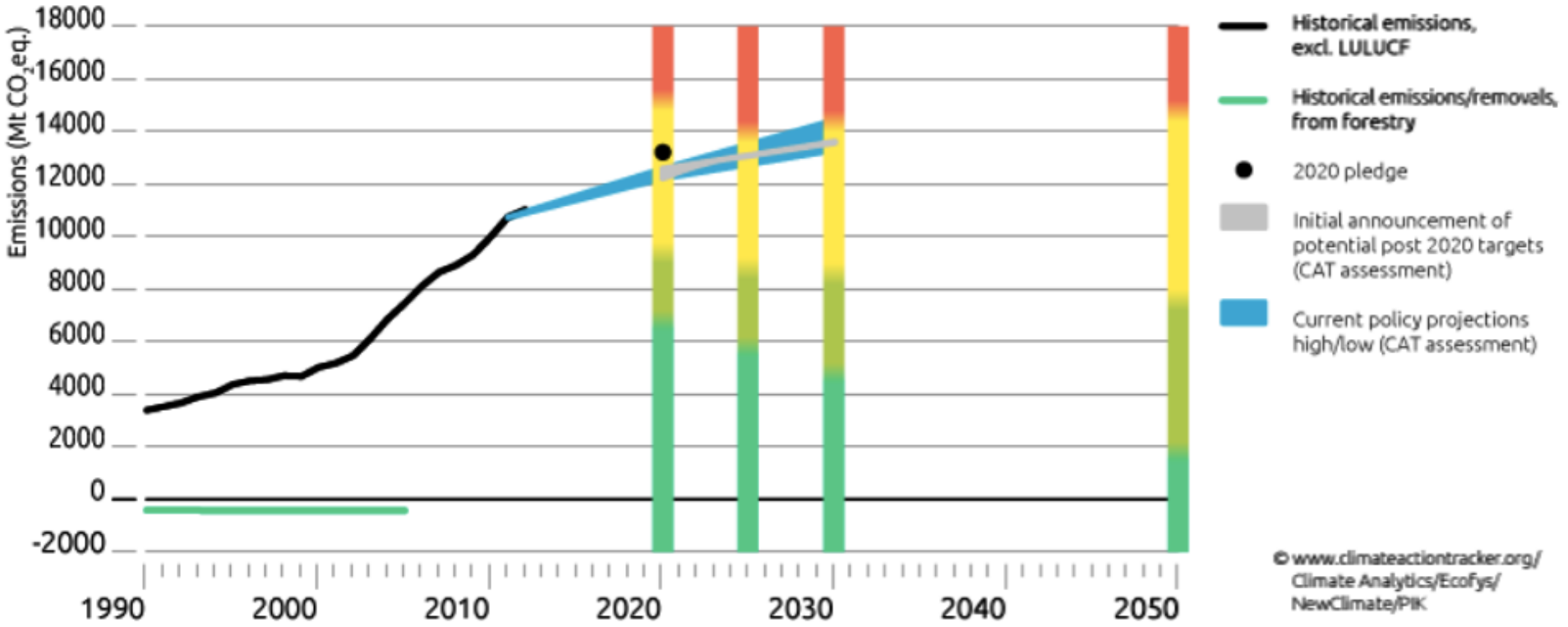
Source: Climateactiontracker.org

INDC of USA

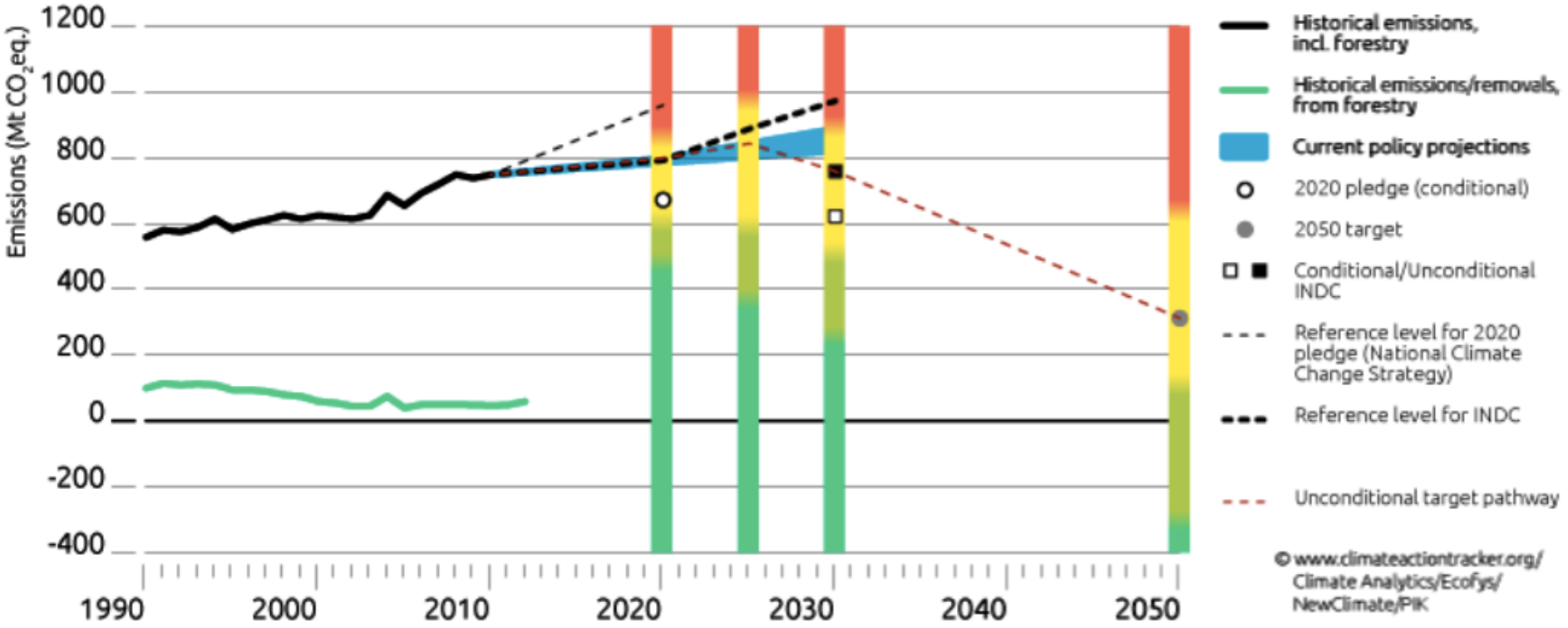


Source: Climateactiontracker.org

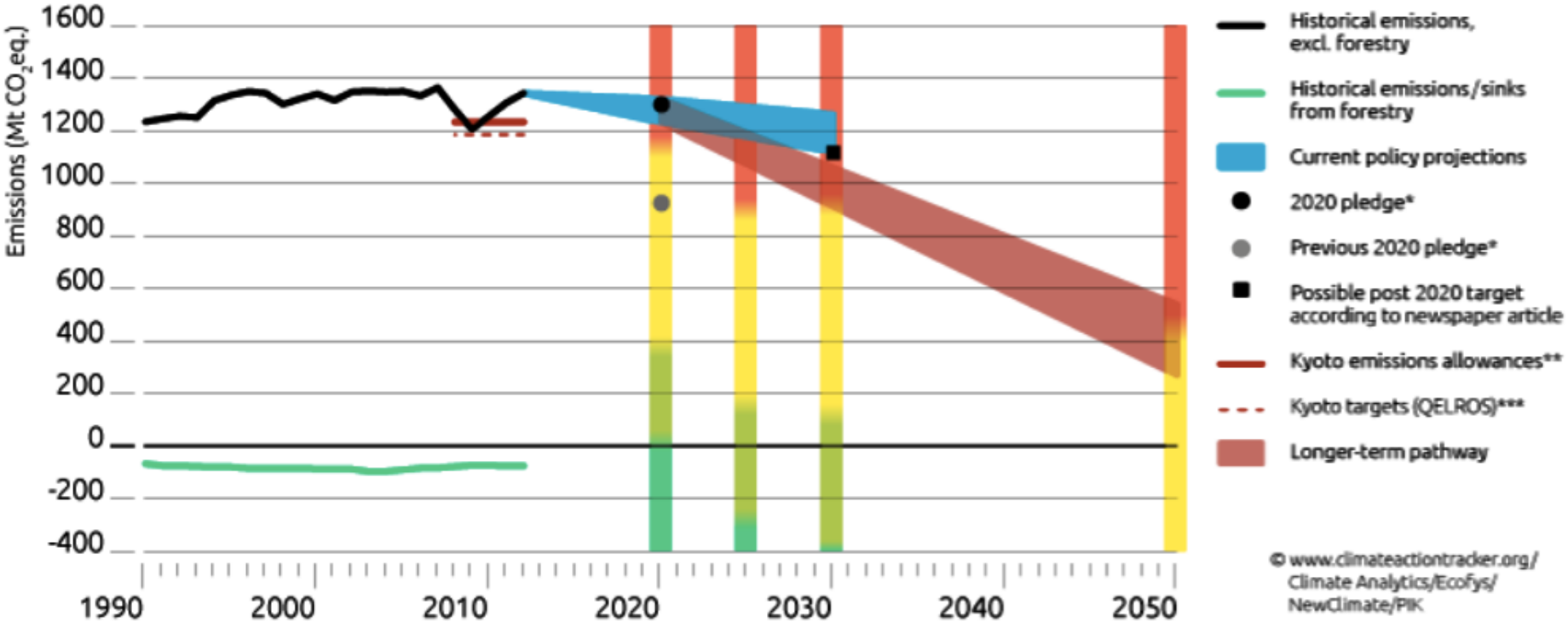
INDC of China



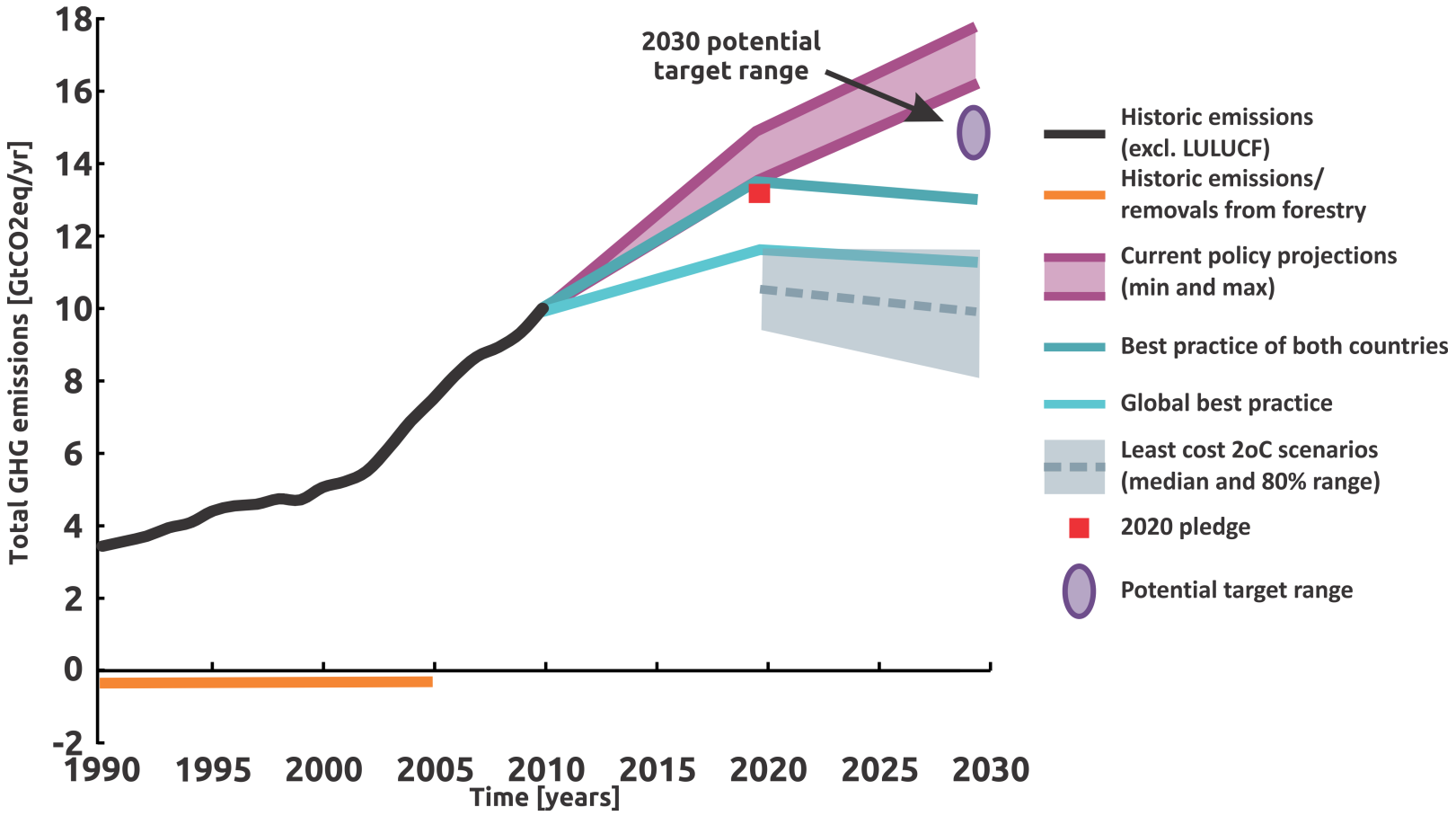
INDC of Mexico



INDC of Japan

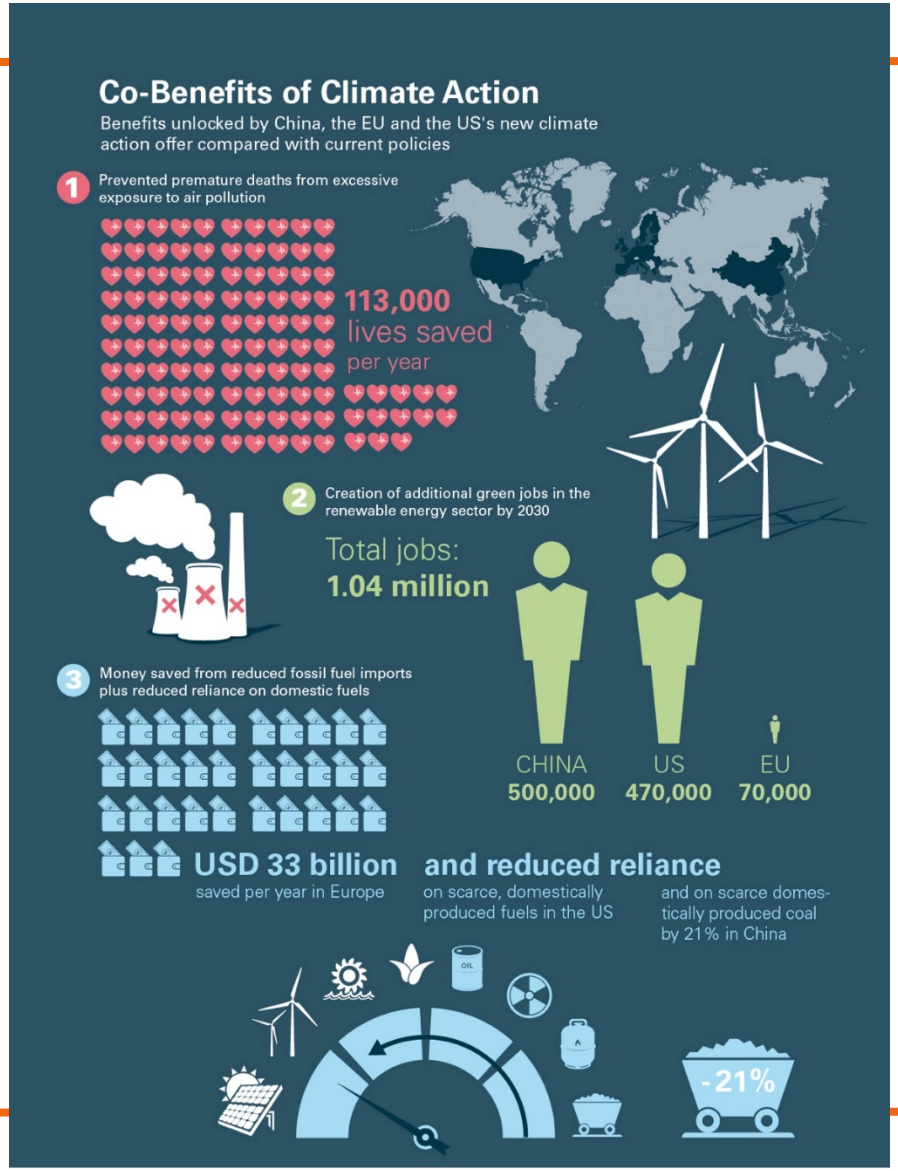


Comparison to potential (global least cost 2°C scenarios)

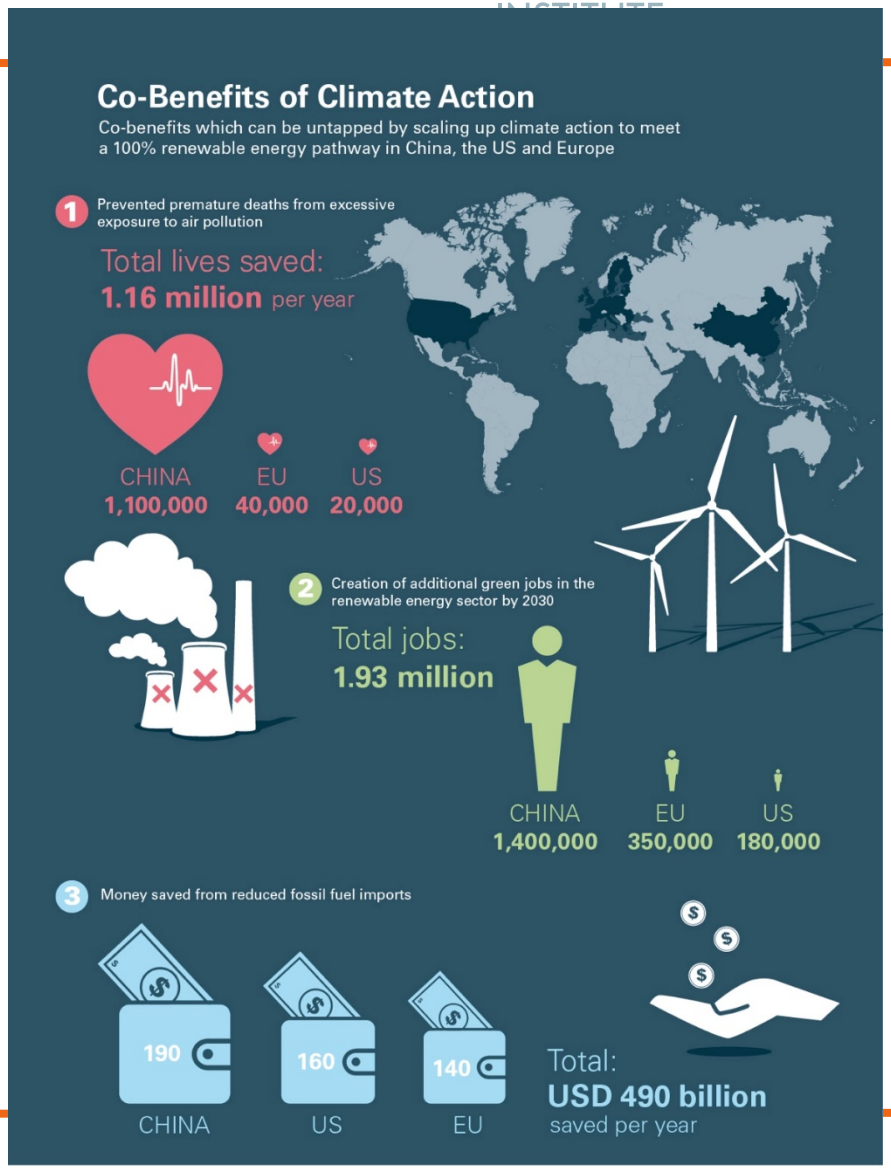


Source: Climateactiontracker.org

Assessment of co-benefits



Source: NewClimate Institute for Climate Policy and Global Sustainability. Full Report available at http://bit.do/CoBenefits



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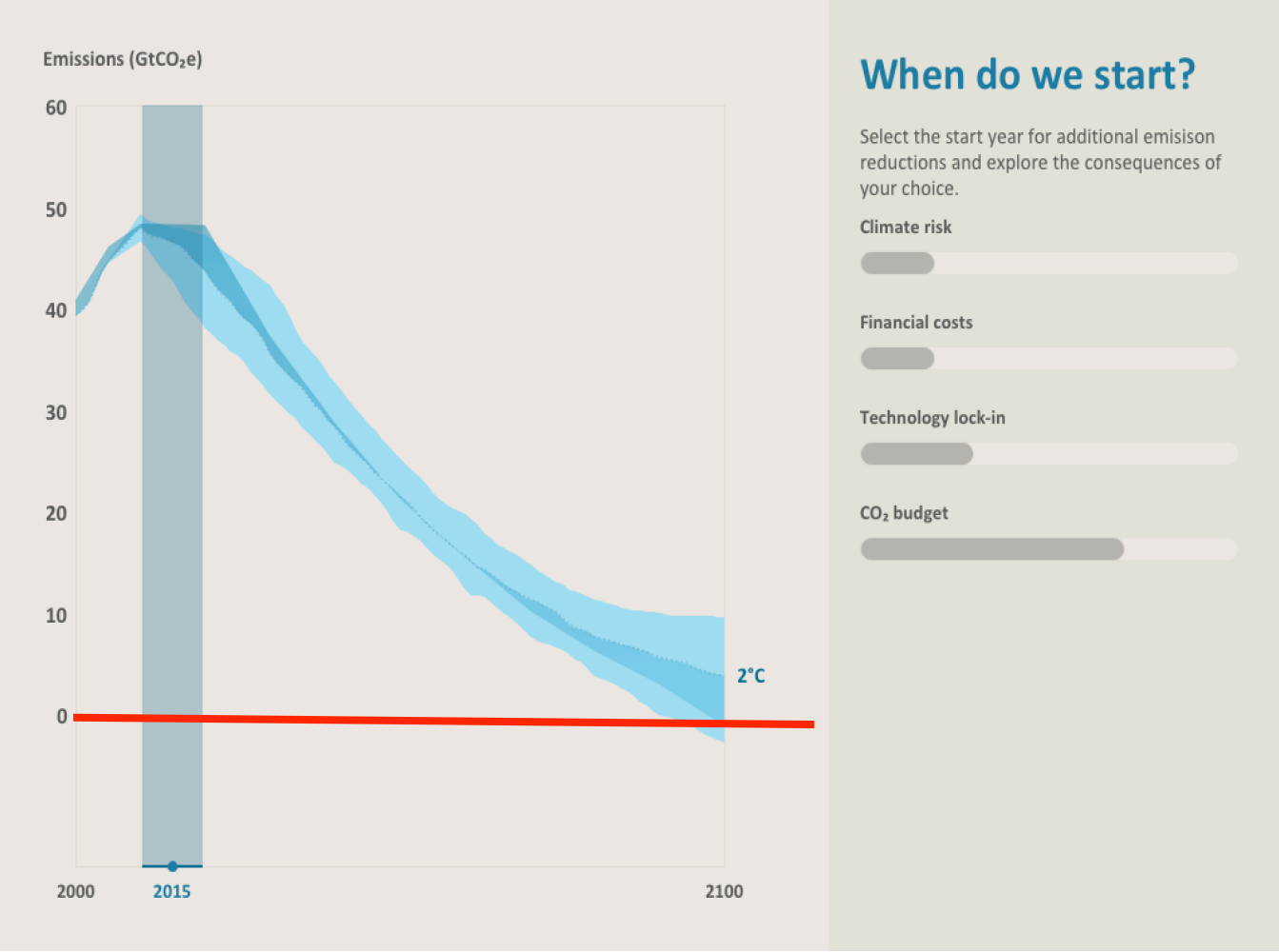
Delay means earlier phase out



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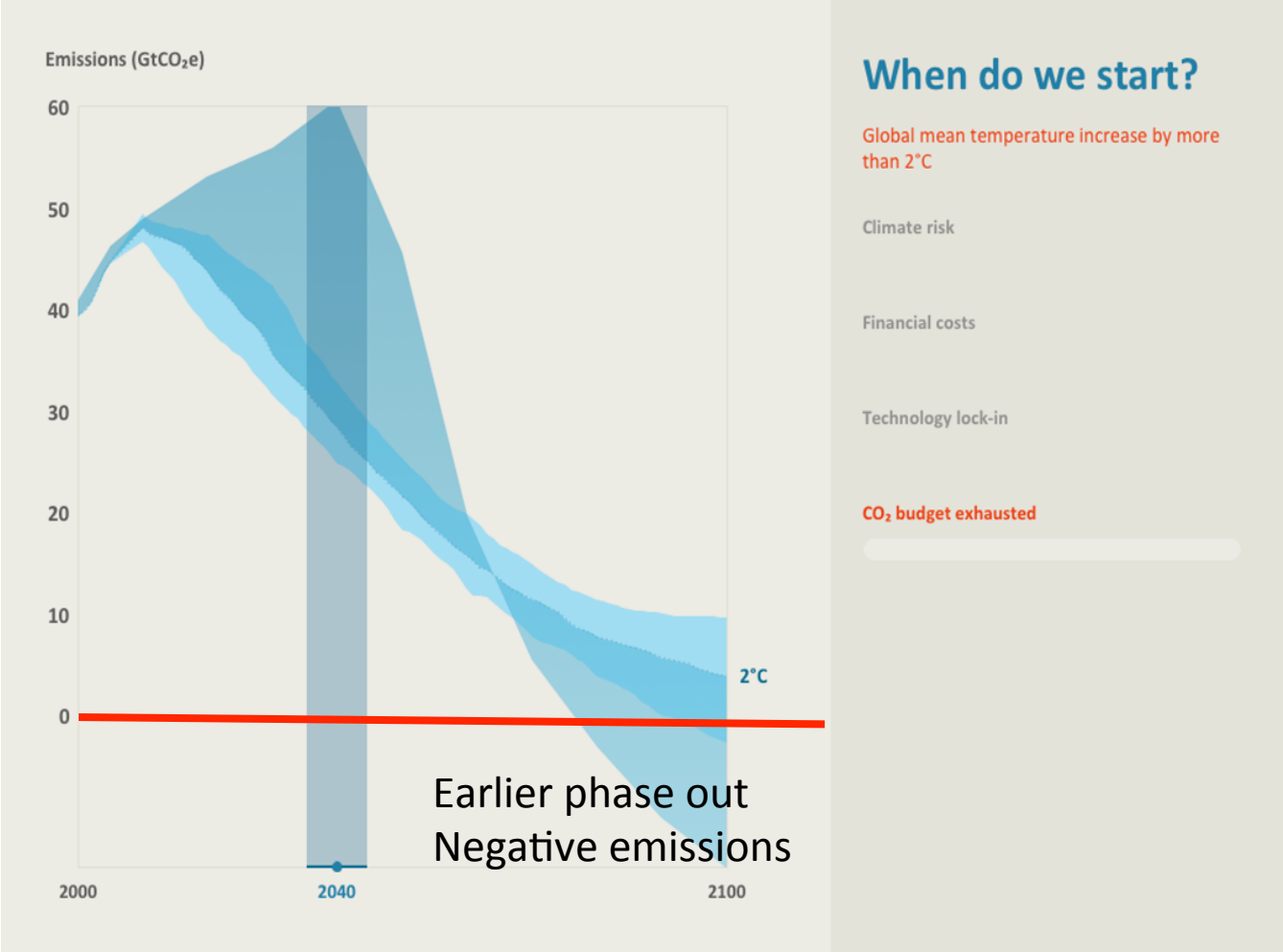
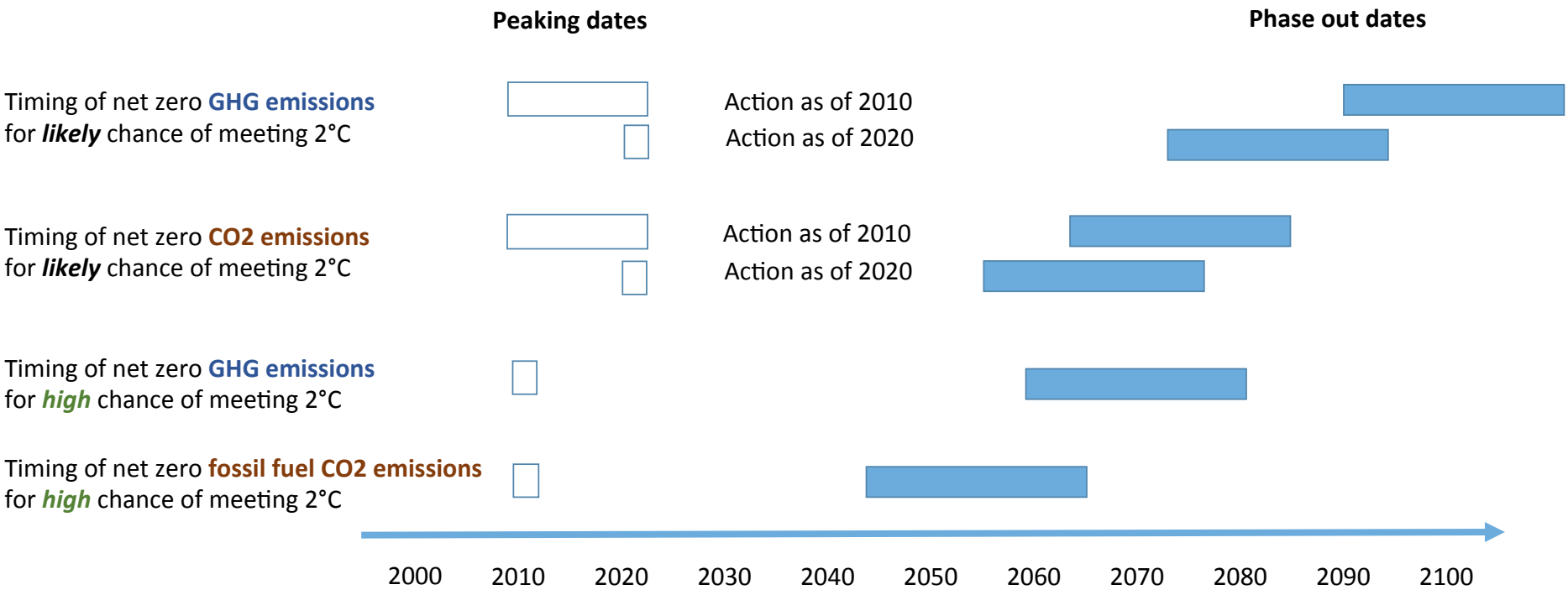


Phase out when?



What does ambition mean?

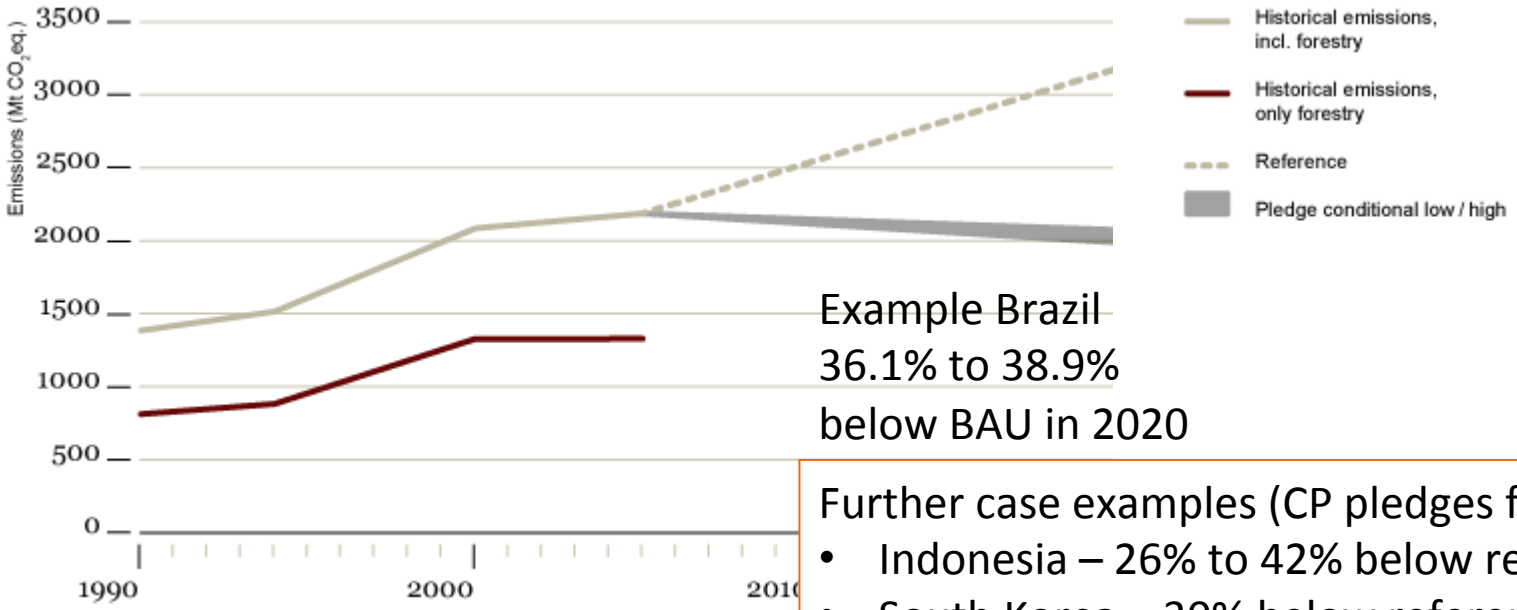
Element	Country with high capability	Country with medium capability	Country with low capability
Inspirational national long term emissions goal	Year of intended phase out of GHG emissions	Long-term peak and decline pathway or range	-
National short term emissions target	Precisely defined, economy wide, multi-year target until 2025 and/or 2030	Indication of mitigation ambition until 2025 and/ or 2030 (below BAU, intensity, range)	-
Energy / sectoral targets	National energy efficiency or renewable targets Targets related to land-use and forestry	National energy efficiency or renewable targets Targets related to land-use and forestry	National energy efficiency or renewable targets, if existing
Highlight policies and projects	Governance structures Highlight policies / projects with intended impacts	Governance structures Highlight policies / projects with intended impacts	Selection of a few, yet ambitious policies and/or projects

Ways to assess contributions

Comparison	Considerations
To BAU	• BAU is counterfactual
To effort sharing	• Wide rage of possible outcomes
To mitigation potential	• Costs compared to a BAU, which is counterfactual
Of decarbonisation indicators	• Forward looking, no BAU necessary • Indicators close to actions, specially on sectoral level
To good practice policy package / policy menu	• Forward looking, no BAU necessary • How is the package defined?

Comparison to BAU

- Track progress over time
- BAU is counterfactual
- BAU includes many different developments



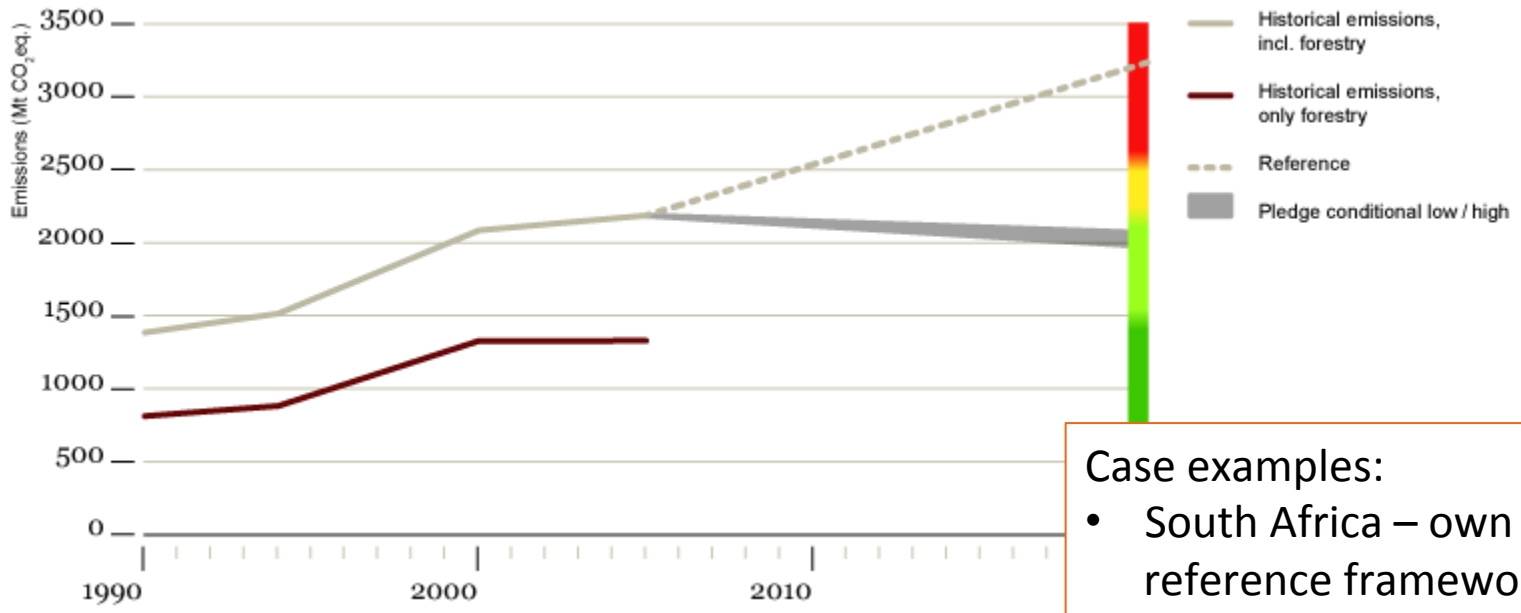
Example Brazil
36.1% to 38.9%
below BAU in 2020

Further case examples (CP pledges for 2020):

- Indonesia – 26% to 42% below reference
- South Korea – 30% below reference
- South Africa – 34% below BAU
- Mexico – 30% below BAU
- Chile – 20% below BAU

Comparison to effort sharing (equity)

- Large range of effort sharing approaches, e.g. per capita, carbon budgets, equal costs, …

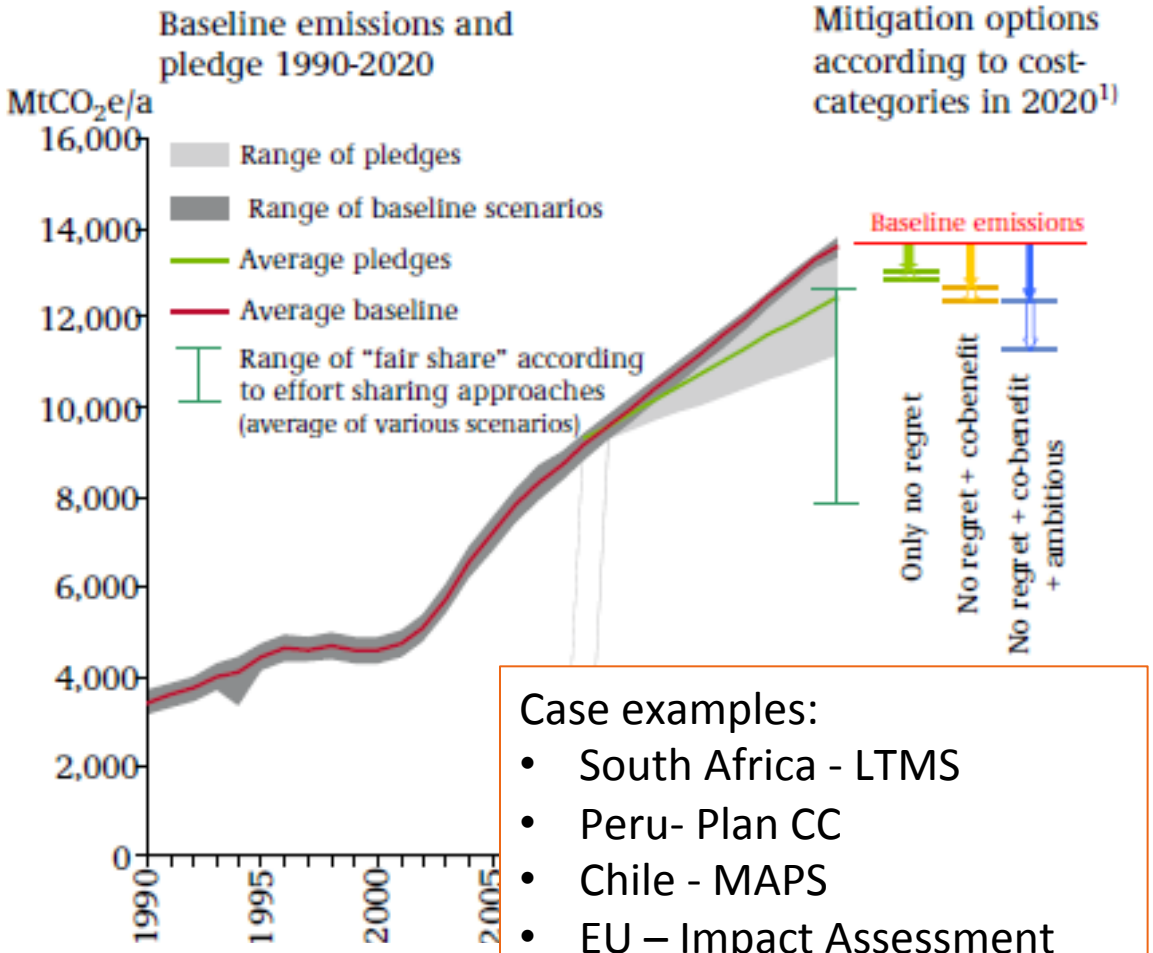


Case examples:

- South Africa – own equity reference framework
- Brazil – historical responsibility

Comparison to potential

- Large uncertainties
  - Assumptions on base line?
  - Assumptions on cost elements?
  - Model used?

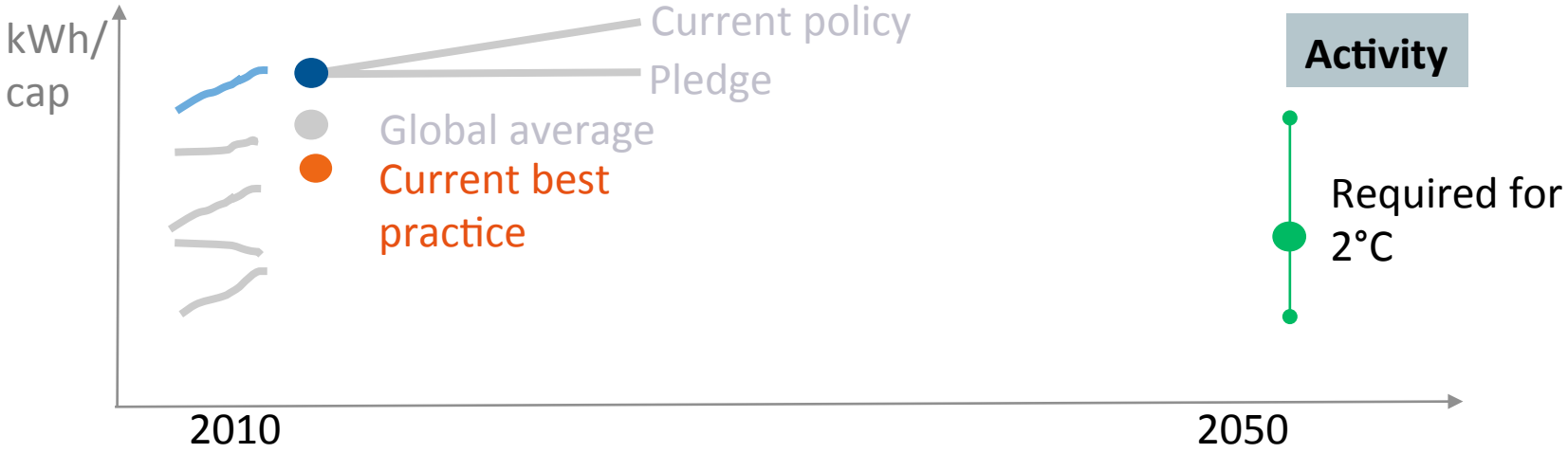


Source: Fekete et al. 2013. Climate change mitigation in emerging economies: From potentials to actions. http://www.umweltbundesamt.de/sites/default/files/medien/378/publikationen/cc_19_2013_vorabexemplar_fkz_3711_41_120_ueberarbeitet_12_12_13_.pdf

Case examples:

- South Africa - LTMS
- Peru- Plan CC
- Chile - MAPS
- EU – Impact Assessment

Comparison to decarbonisation indicators

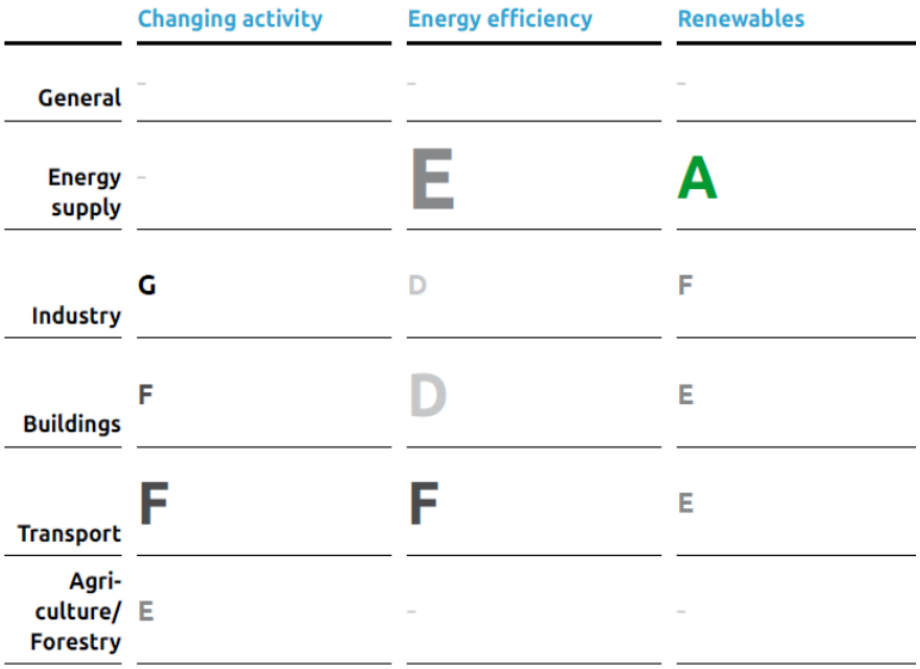


Case examples:

- China (peak year of per capita emissions)

Comparison to low carbon policy package

- Possible approach
  1. Choose area of intervention
  2. Identify BP interventions
  3. Develop benchmarks
  4. Rate policy against benchmark



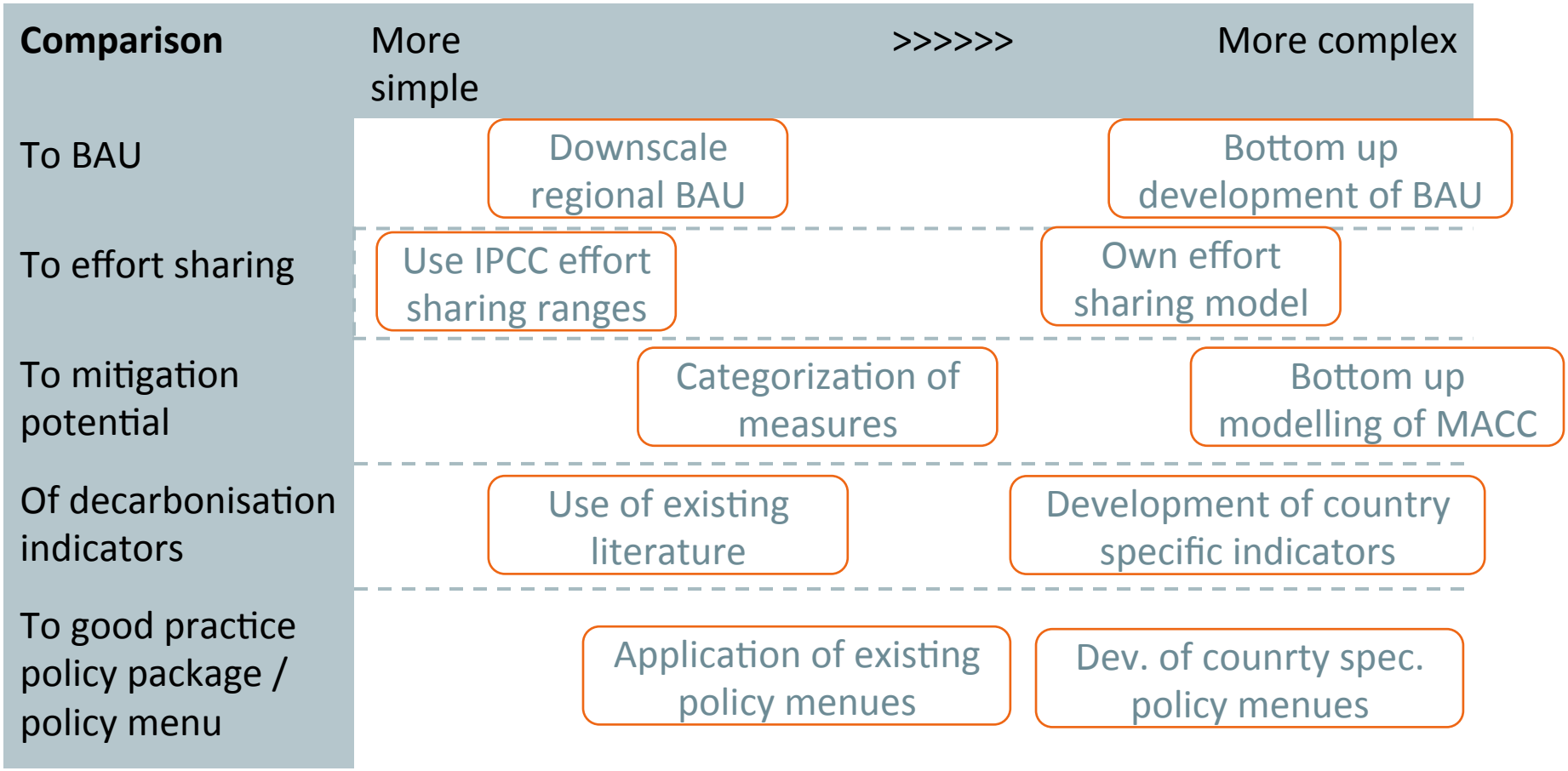
	Changing activity	Energy efficiency	Renewables
General	-	-	-
Energy supply	-	E	A
Industry	G	D	F
Buildings	F	D	E
Transport	F	F	E
Agri-culture/ Forestry	E	-	-

Source: Climate Action Tracker – country assessment examples

Suitable approaches for different types of commitments

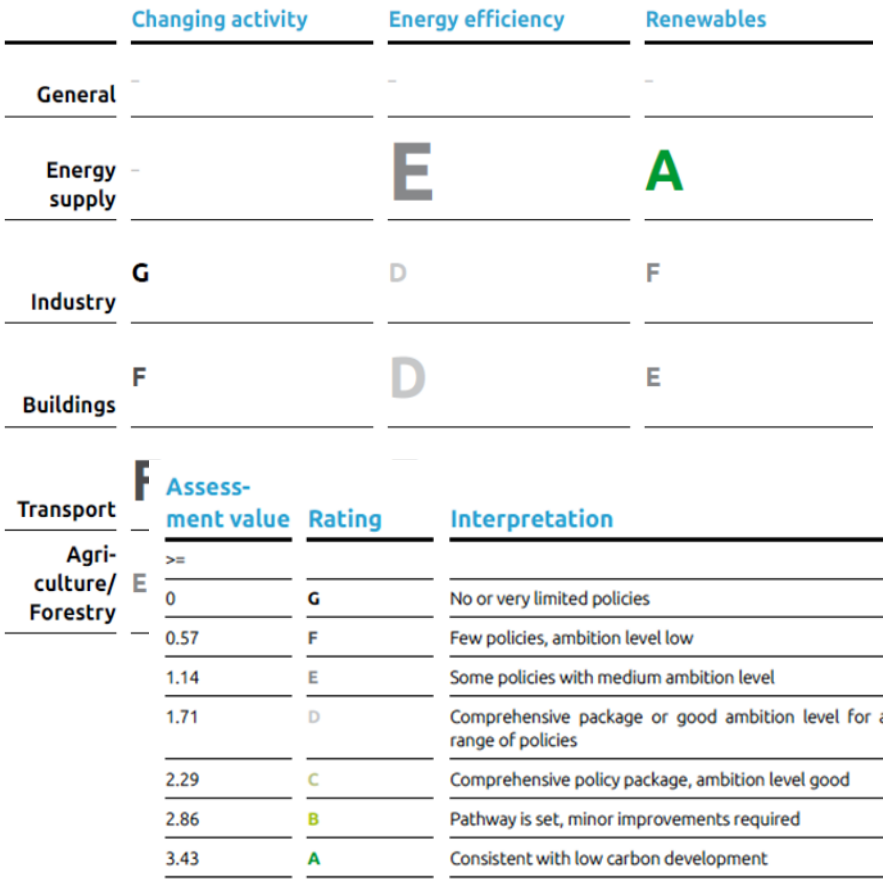
Legend approaches	Business as usual (BAU)	Effort sharing	Mitigation potential	Decarboni-sation indicators	Good practice policy package
Most appropriate					
Appropriate					
Aspirational national long term emissions goal					
National short term emissions target					
Energy / sectoral targets					
Highlight policies and projects					

Complexity of analysis



Comparison to low carbon policy package

- Possible approach
  1. Choose area of intervention
  2. Identify BP incentives
  3. Develop benchmarks
  4. Rate policy against benchmark



	Changing activity	Energy efficiency	Renewables
General			
Energy supply		E	A
Industry	G	D	F
Buildings	F	D	E
Transport	F		
Agri-culture/ Forestry	E		

Assess-ment value	Rating	Interpretation
>=		
0	G	No or very limited policies
0.57	F	Few policies, ambition level low
1.14	E	Some policies with medium ambition level
1.71	D	Comprehensive package or good ambition level for a wide range of policies
2.29	C	Comprehensive policy package, ambition level good
2.86	B	Pathway is set, minor improvements required
3.43	A	Consistent with low carbon development

Source: Climate Action Tracker – country assessment examples

Policy package – example building sector- energy efficiency

Indicator for incentives	Benchmark for evaluating against best practice
• Incentive (regulation, support and information) for use of ***efficient appliances***, including air conditioning	4: 2-3% per year 0: No incentive Method: fraction of appliance covered and stringency of the standards (Japanese Top runner or ecodesign directive). If air conditioning is a major consumer, then building standards need to be considered)
• ***Efficiency standards*** for new buildings for all types of buildings	4: Zero emissions buildings by 2014 2: Zero emissions buildings by 2020 0: No trajectory to zero energy buildings
• Incentive for high ***retrofit rates*** for all types of existing buildings (for complete retrofit, i.e. full building envelope & upgrade supply system)	4: > 3% per year (average 2010-2020) and >2% afterwards 0: < 1 % per year
• Policy for ***efficiency improvement for other than heating fuel*** uses (cooking, hot water use)	4: > 3% per year (average 2010-2020) and >2% afterwards 0: < 1 % per year
• Level of **energy and/or CO2 taxes** (applicable to electricity fuel consumption in buildings)	4: tax is > 100% of energy price 0: no tax

Policy package – final overview

	Changing activity	Energy efficiency	Renewables	Low carbon	Other
General	–	–	–	–	B
Energy supply	–	E	A	LC F REN G	–
Industry	G	D	F	LC F REN G	F
Buildings	F	D	E	No score	–
Transport	F	F	E		
Agri-culture/ Forestry	E	–	–		

Assess-ment value	Rating	Interpretation
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