Fairness and Ambition for the Global Response to Climate Change

The Climate Equity Reference Framework

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and Climate Equity Reference Project

Feasible Ambition: Climate Goals for New Zealand in 2030
New Zealand House of Representatives, Wellington
25 September 2015

Climate Equity Reference Project

uOttawa
L'Université canadienne
Canada's university

Points of Departure

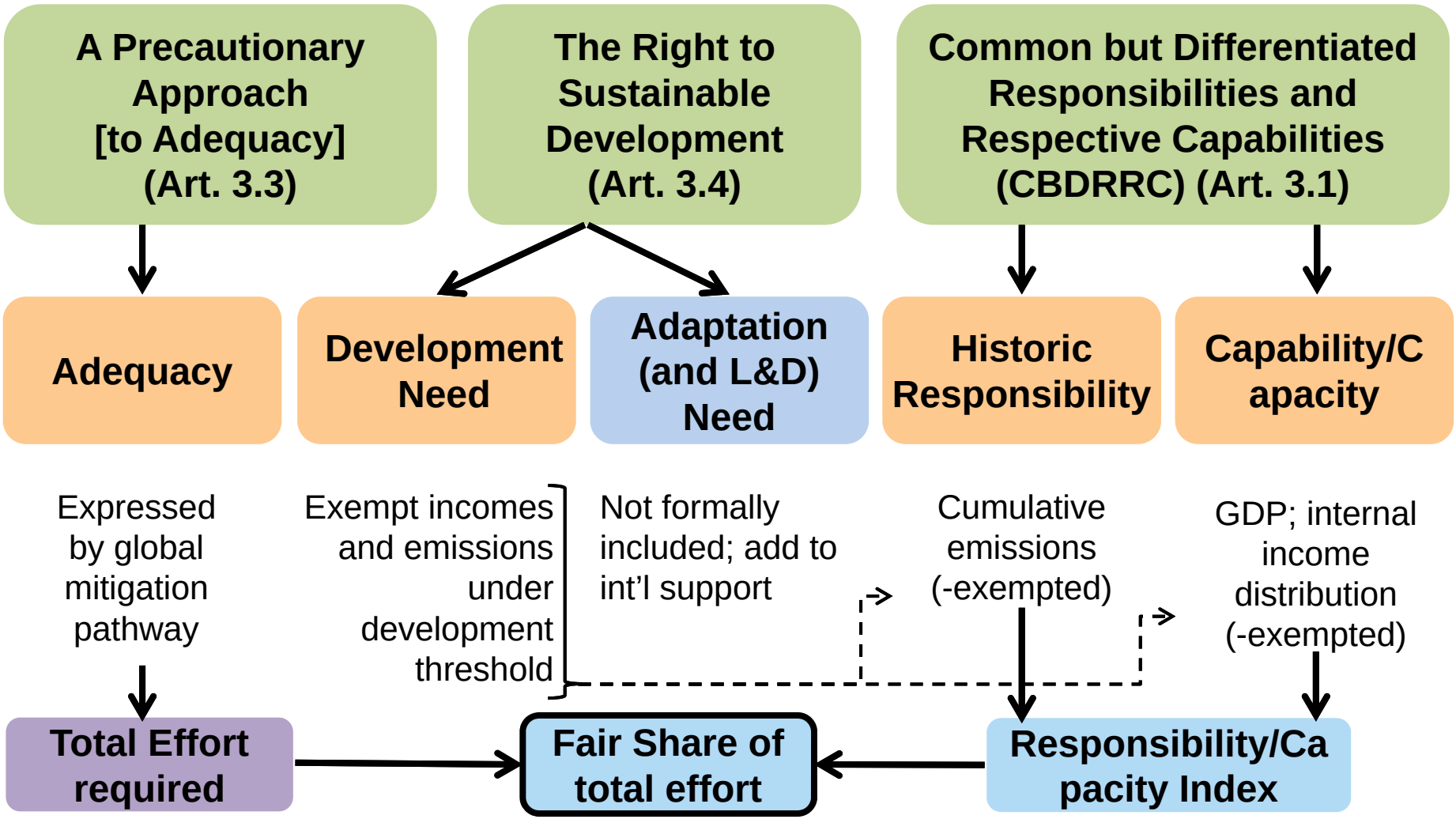
- 1.5°C/2°C warming limit
- Global collective action problem → international cooperation
- Equity as an enabler of ambition/action
  - The chicken problem vs trust in the international regime
  - Conflict between human development and deep emissions reductions
  - It's in the UN Climate Convention

“It’s in the UN Climate Convention”

Principles, Article 3.1, UNFCCC, 1992

“The Parties should protect the climate system for the benefit of present and future generations of humankind, on the basis of equity and in accordance with their common but differentiated responsibilities and respective capabilities.”

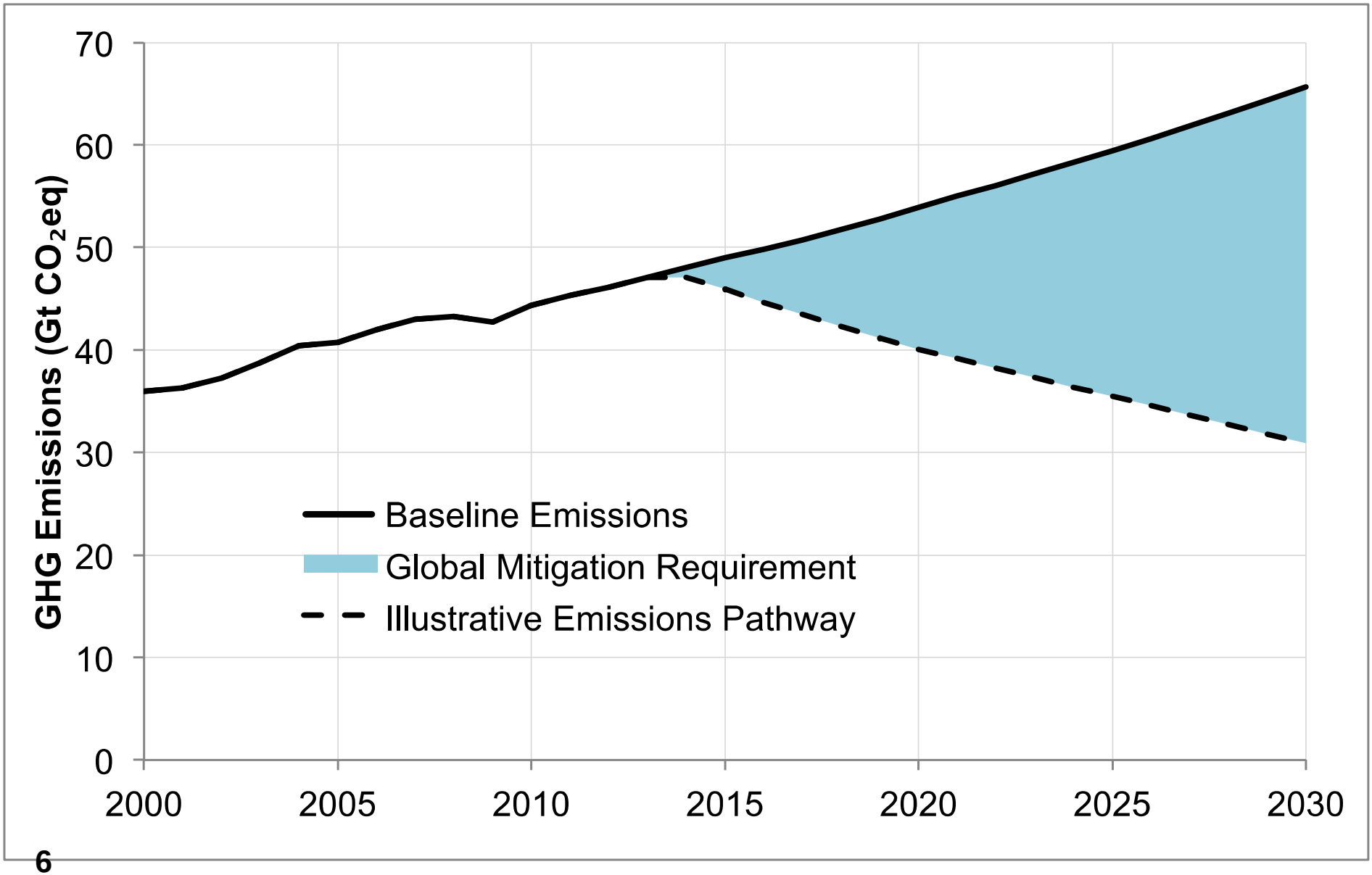
Convention-Based Equity Principles and The Climate Equity Reference Framework



Principles

- Precautionary approach to climate change
- Preservation of the Right to Human Development
- Obligations to invest in adaptation and mitigation commensurate with Responsibility and Capacity

Fairly sharing the global emission reduction effort among countries according to Responsibility and Capability



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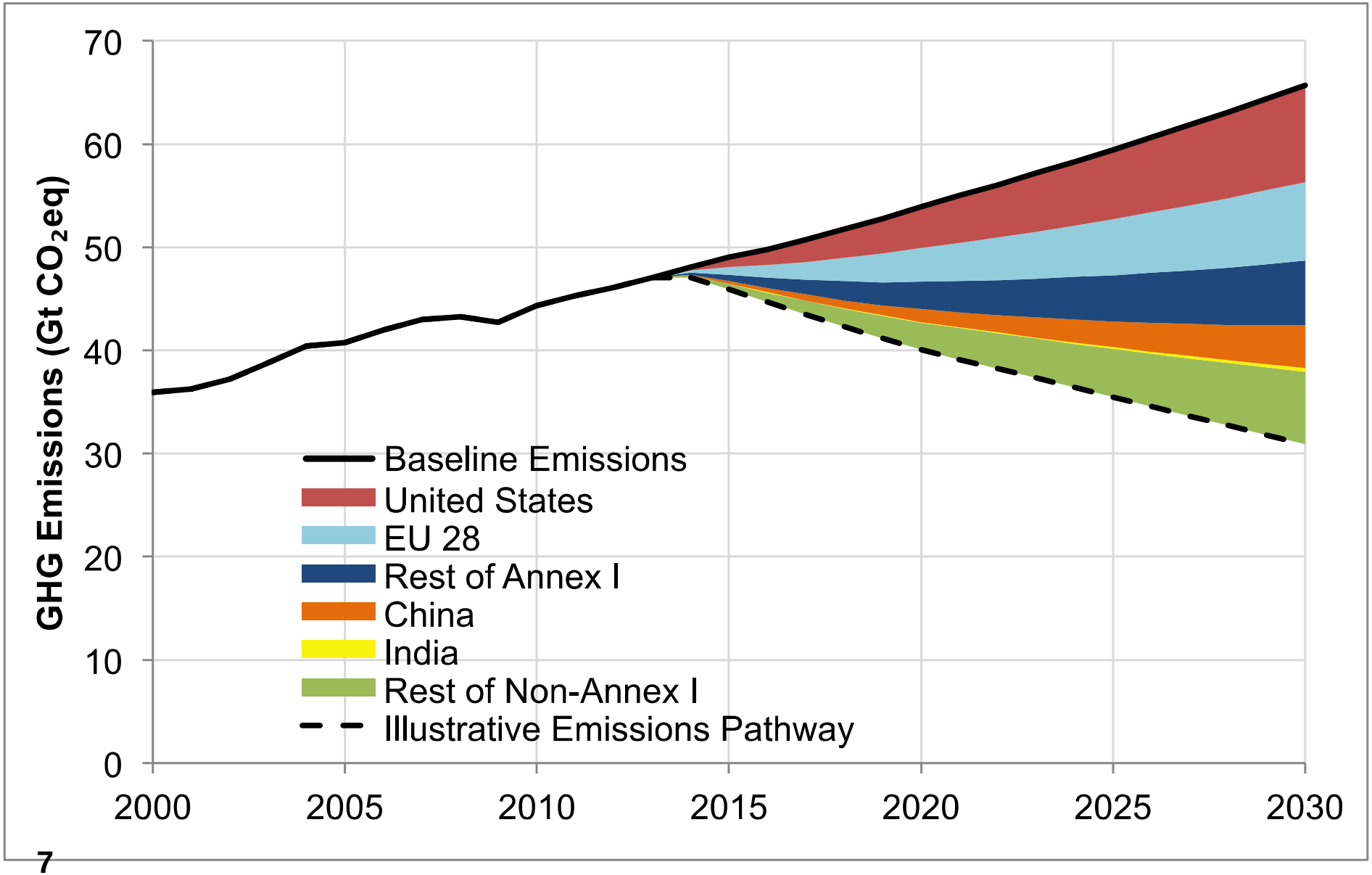
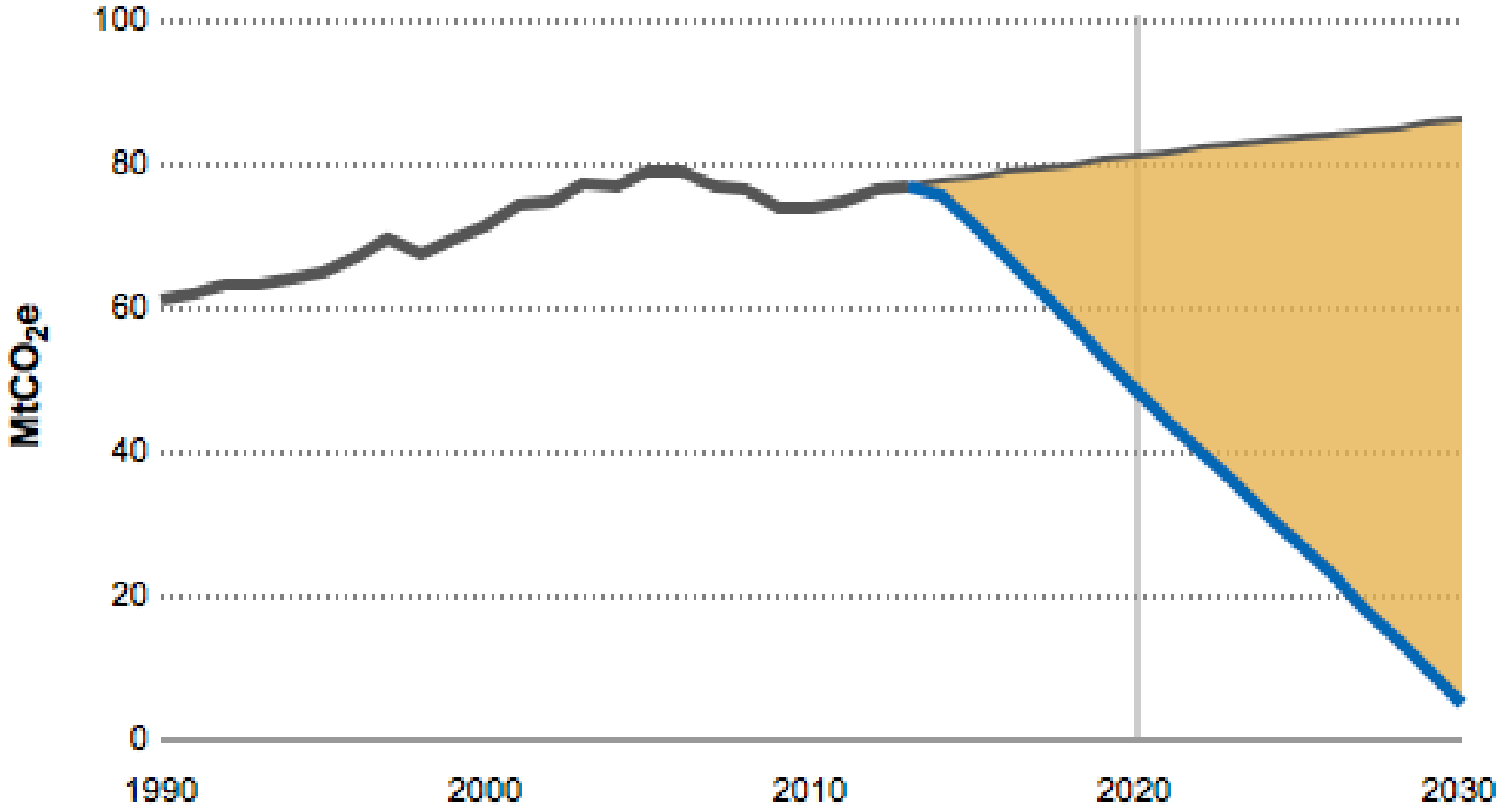


“Fair” reductions for New Zealand

(1950 and Medium Progressivity ($7500))



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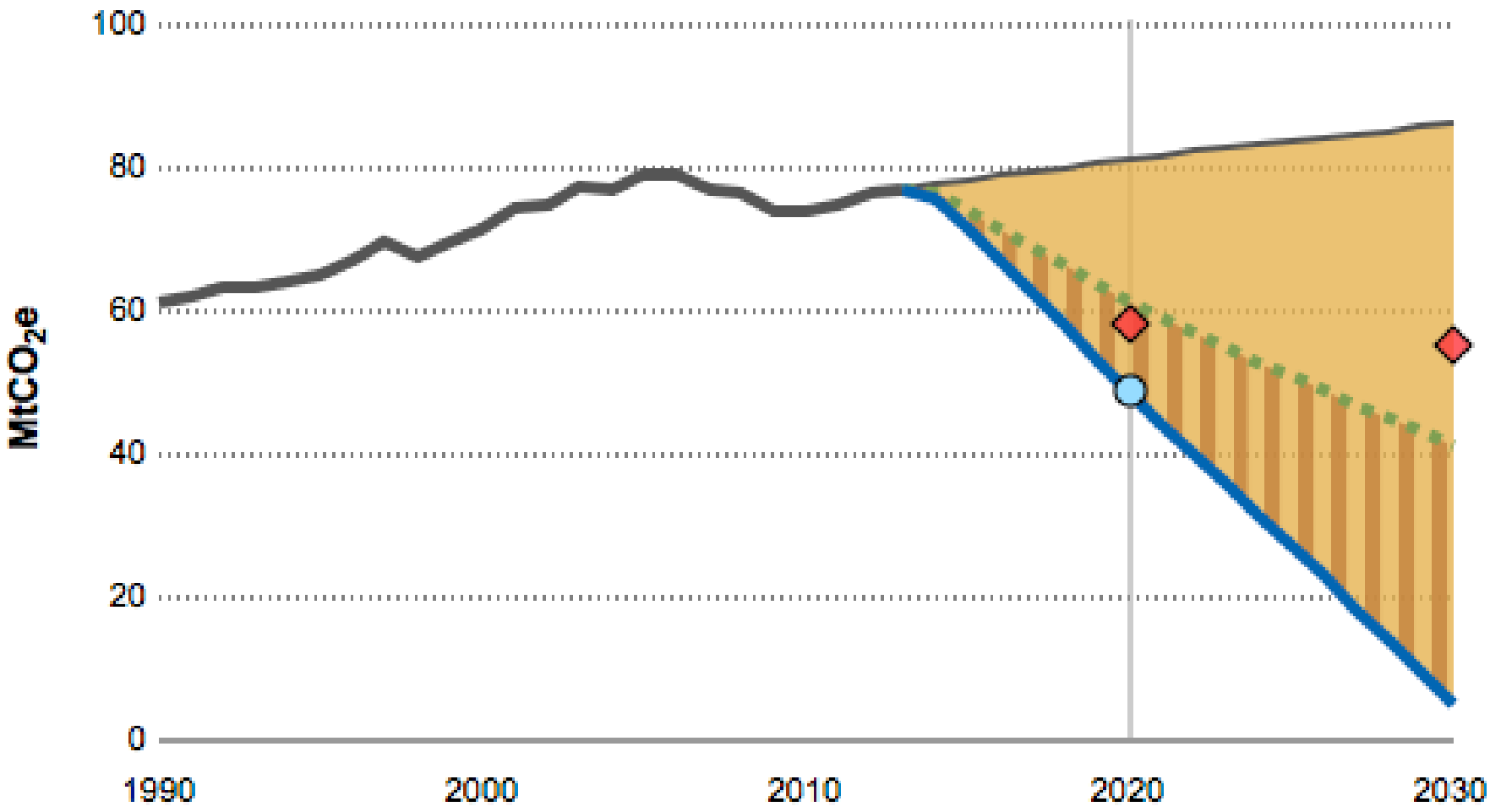


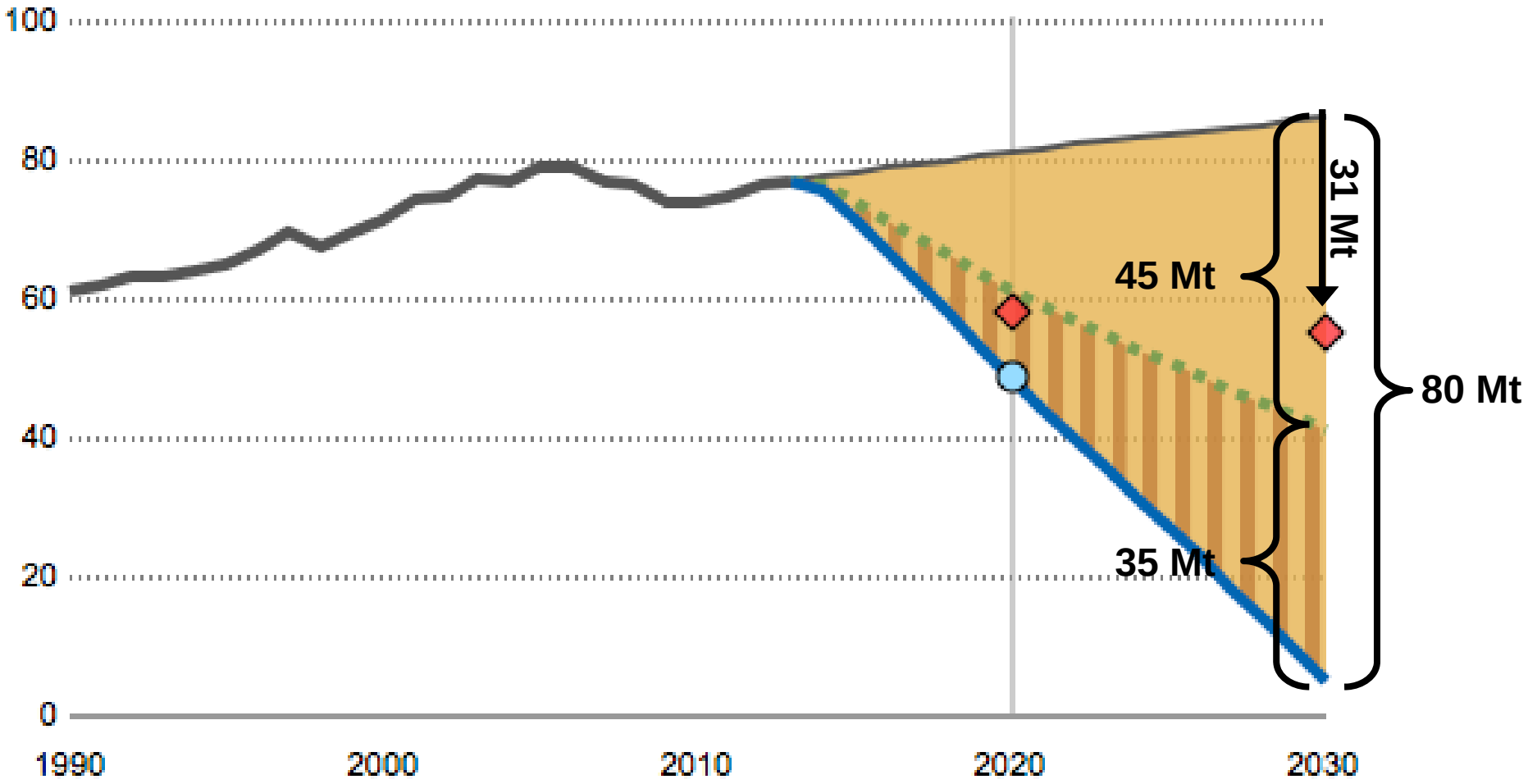
Potential Uses

1. Single Country Assessment, or Determination, of Pledge (dual obligations vs. dual pledges
   ("nationally determined contributions")
2. Global Comparable Effort Analysis
3. Assessment of the Global Mitigation Gap
4. Sub-national effort sharing
5. Comparison with other equity frameworks

…the sky is the limit

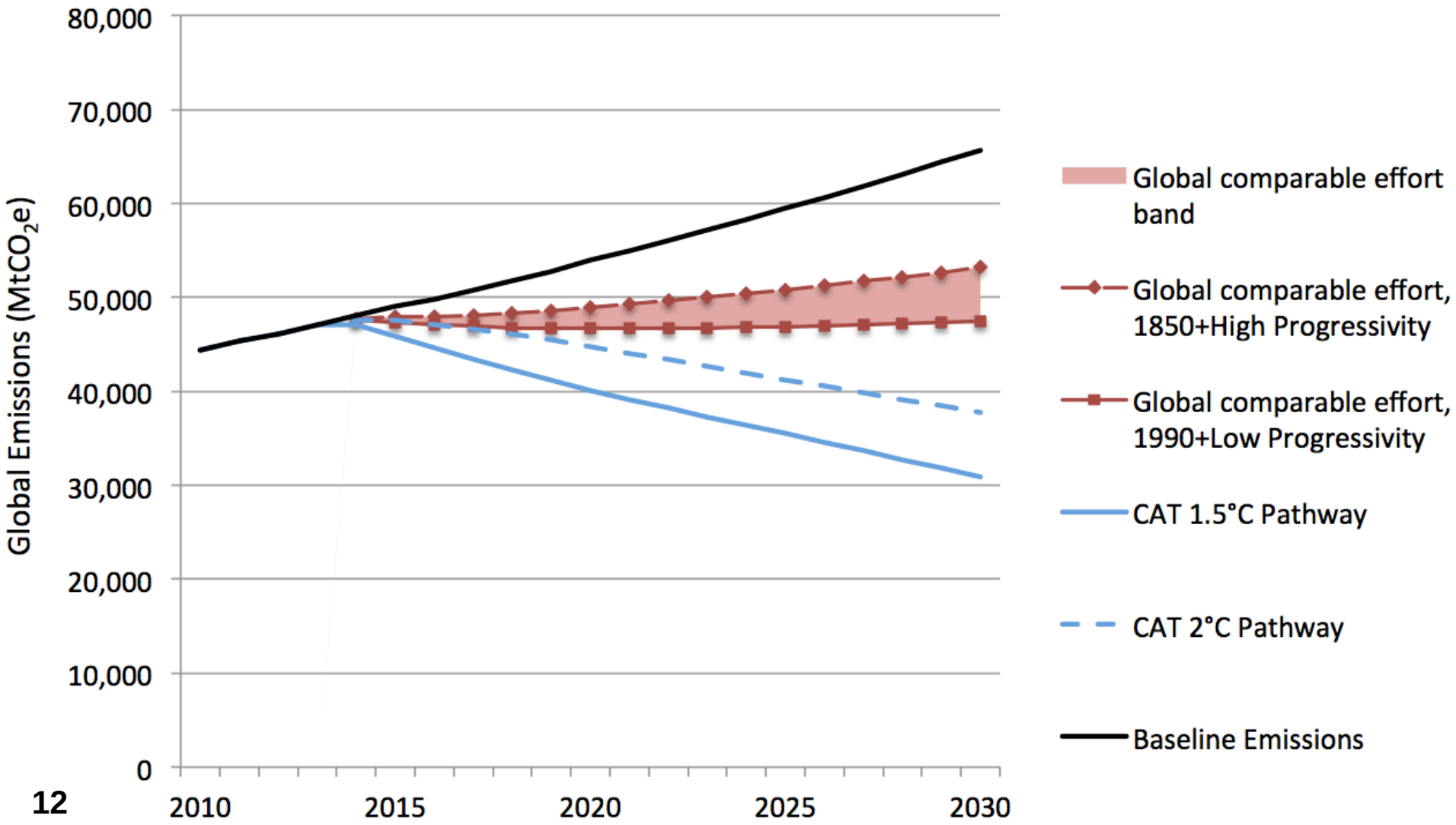
1. Single Country Assessment/Determination

"Fair" reductions for New Zealand

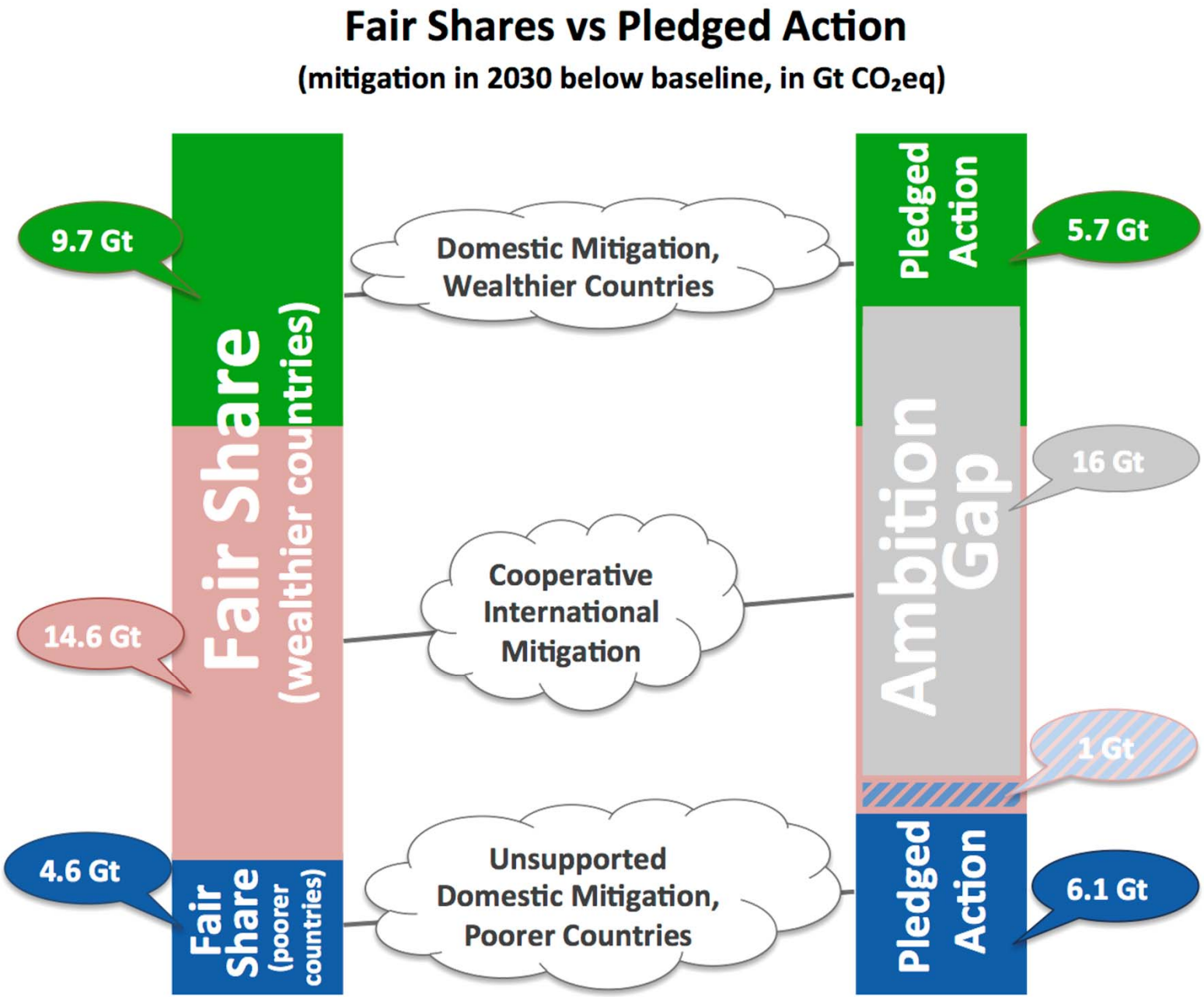


2. Global Comparative Effort Analysis

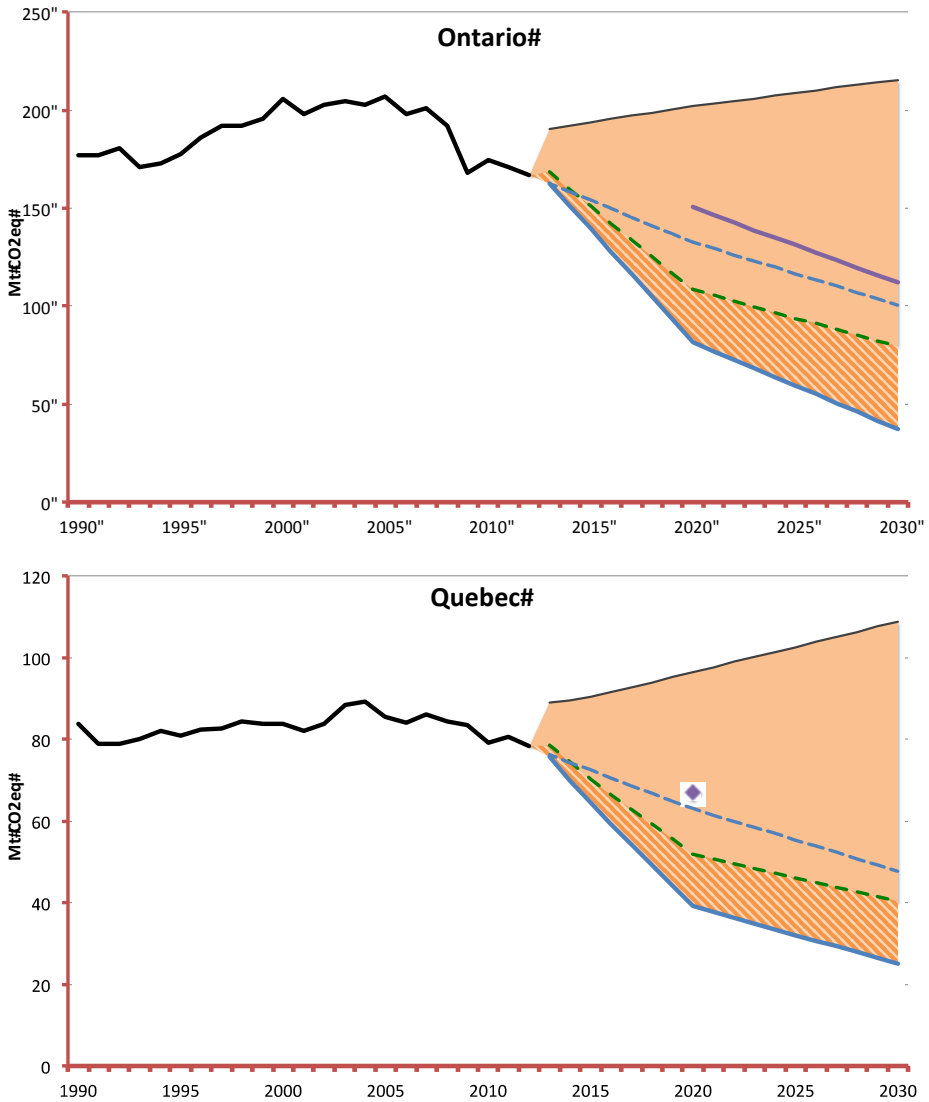
Global Comparative Effort Band for New Zealand's 2030 INDC

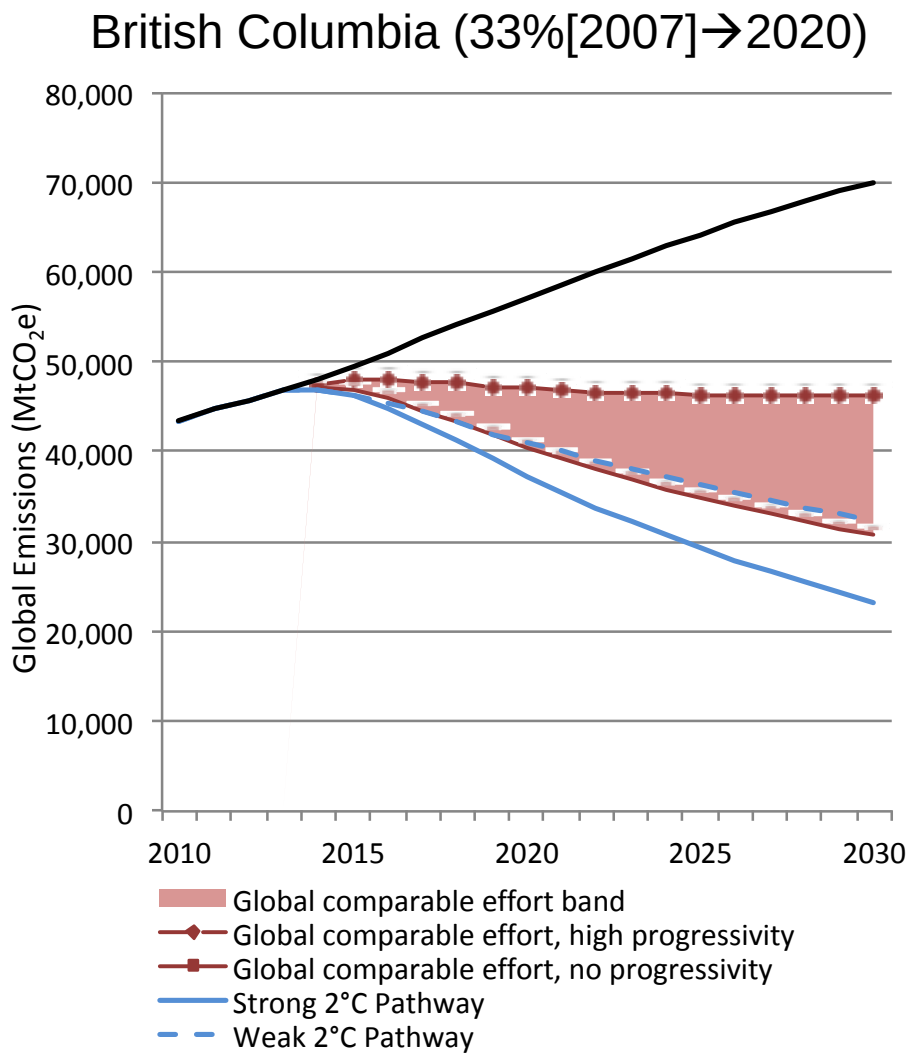


3. Assessment of the Global Mitigation Gap

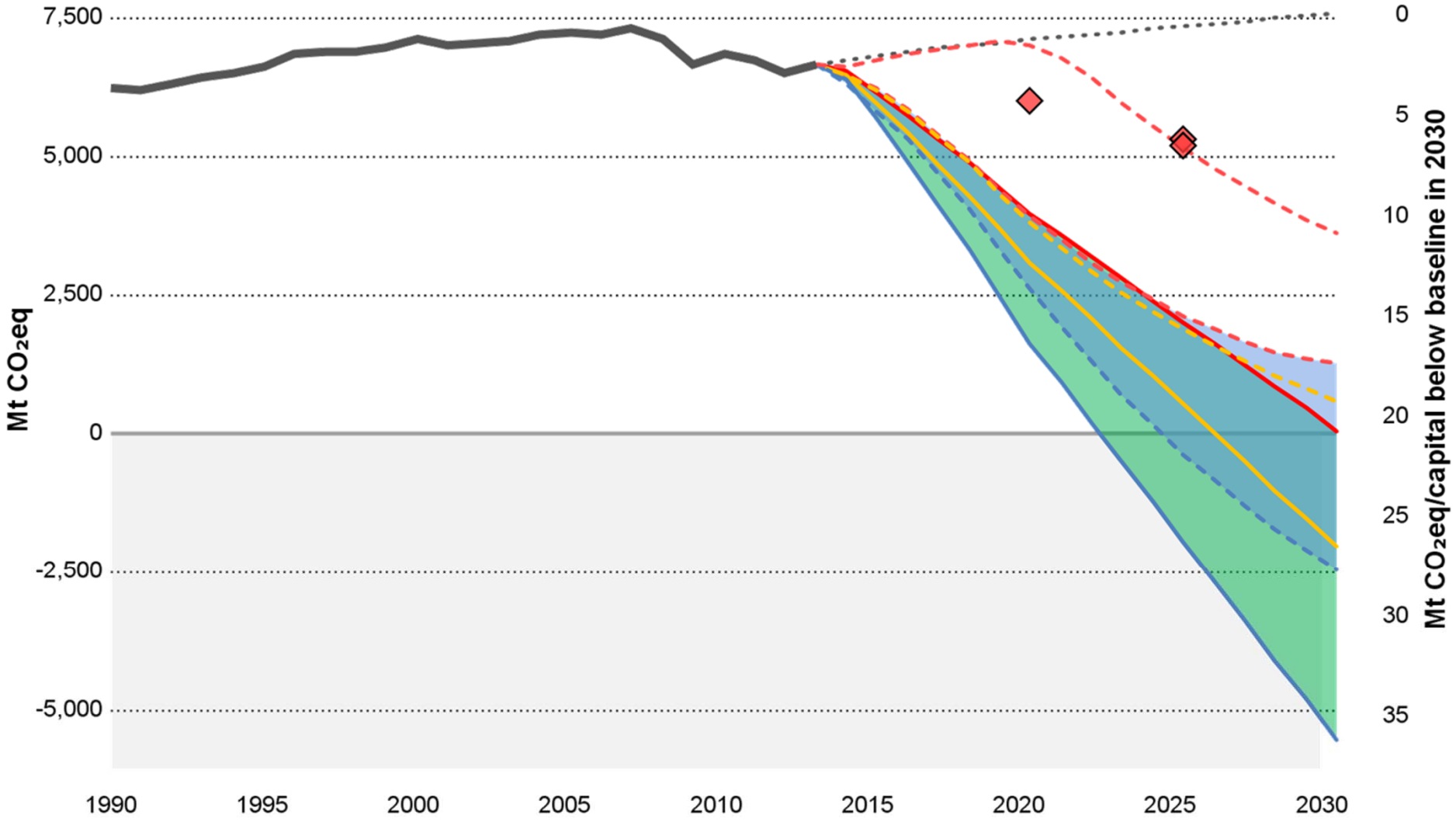


4. Sub-national Effort Sharing Analyses

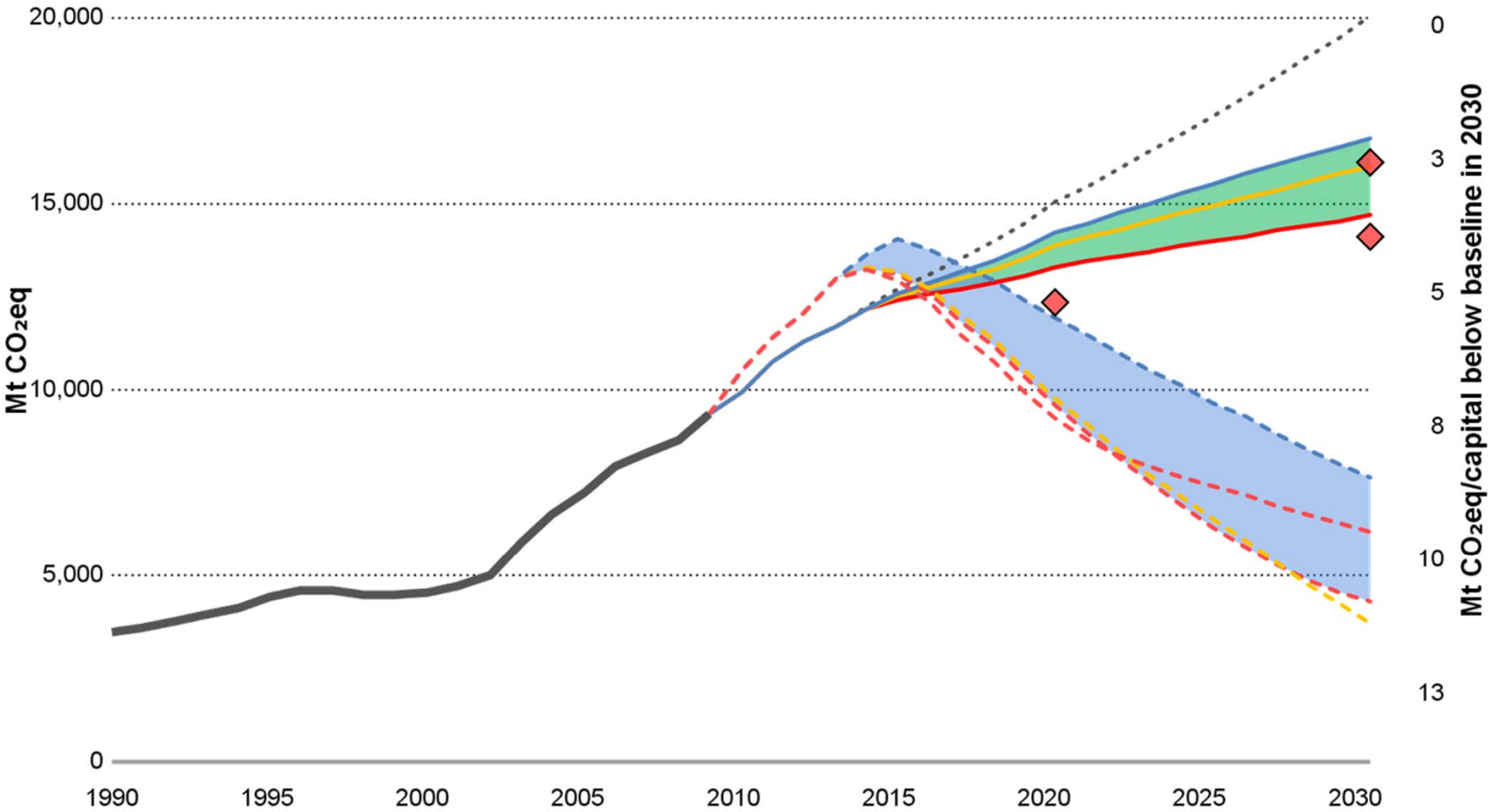




5. Comparison with other Equity Frameworks
USA – CERP Effort Sharing, Resource Sharing and C&C



5. Comparison with other Equity Frameworks
China – CERP Effort Sharing, Resource Sharing and C&C



Reflection and Main points

- Deep global emissions reductions are needed for staying within 1.5°C or 2°C
- For poorer countries this means, that they need to make deep reductions *while they are still quite poor*
  - International Cooperation
  - Equity to unlock international cooperation
- Dual obligations for wealthier countries
- The Equity corridor
  - is reasonable well bounded
  - can be broad
  - Useful tool to navigate issues like adequacy of national ambition, comparability of effort etc

Thank you

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www.climateequityreference.org
calculator.climateequityreference.org

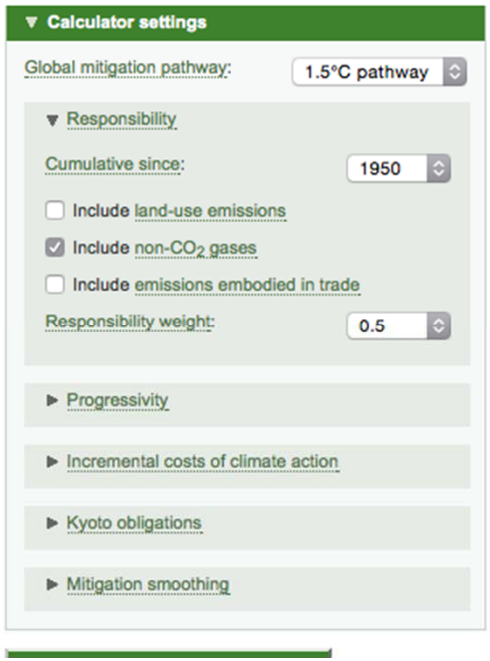
uOttawa
L'Université canadienne
Canada's university

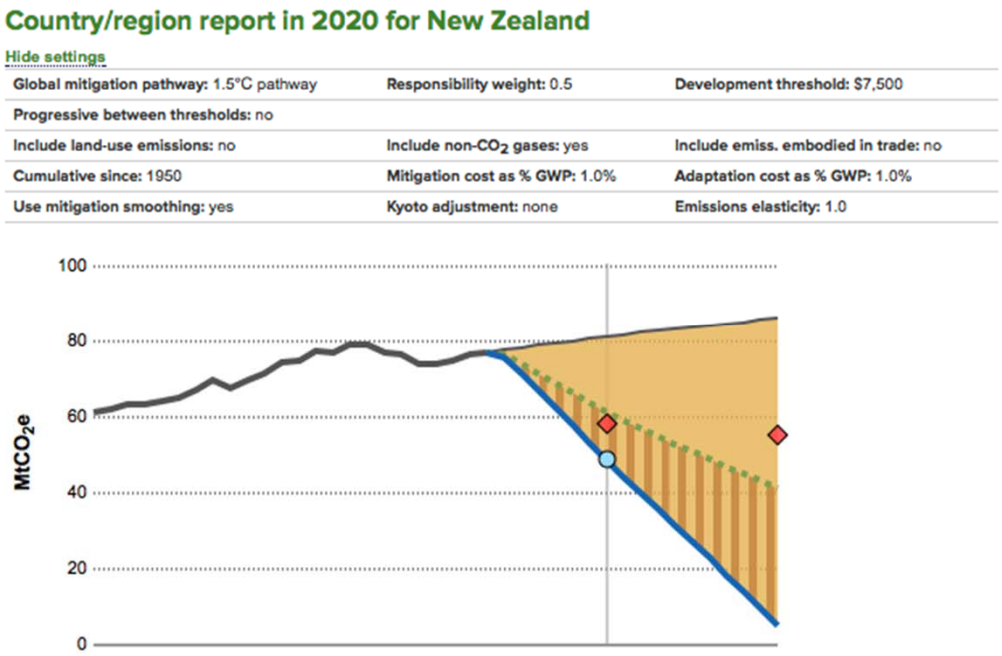
Climate Equity Reference Project

Thank you

www.ClimateEquityReference.org

- National fair shares: The mitigation gap – domestic action and international support
- National Fair Shares (SEI Discussion Brief)
- The North-South divide, equity and development
- The Right to Development in a Climate Constrained World: The Greenhouse Development Rights Framework
- The Climate Equity Reference Calculator

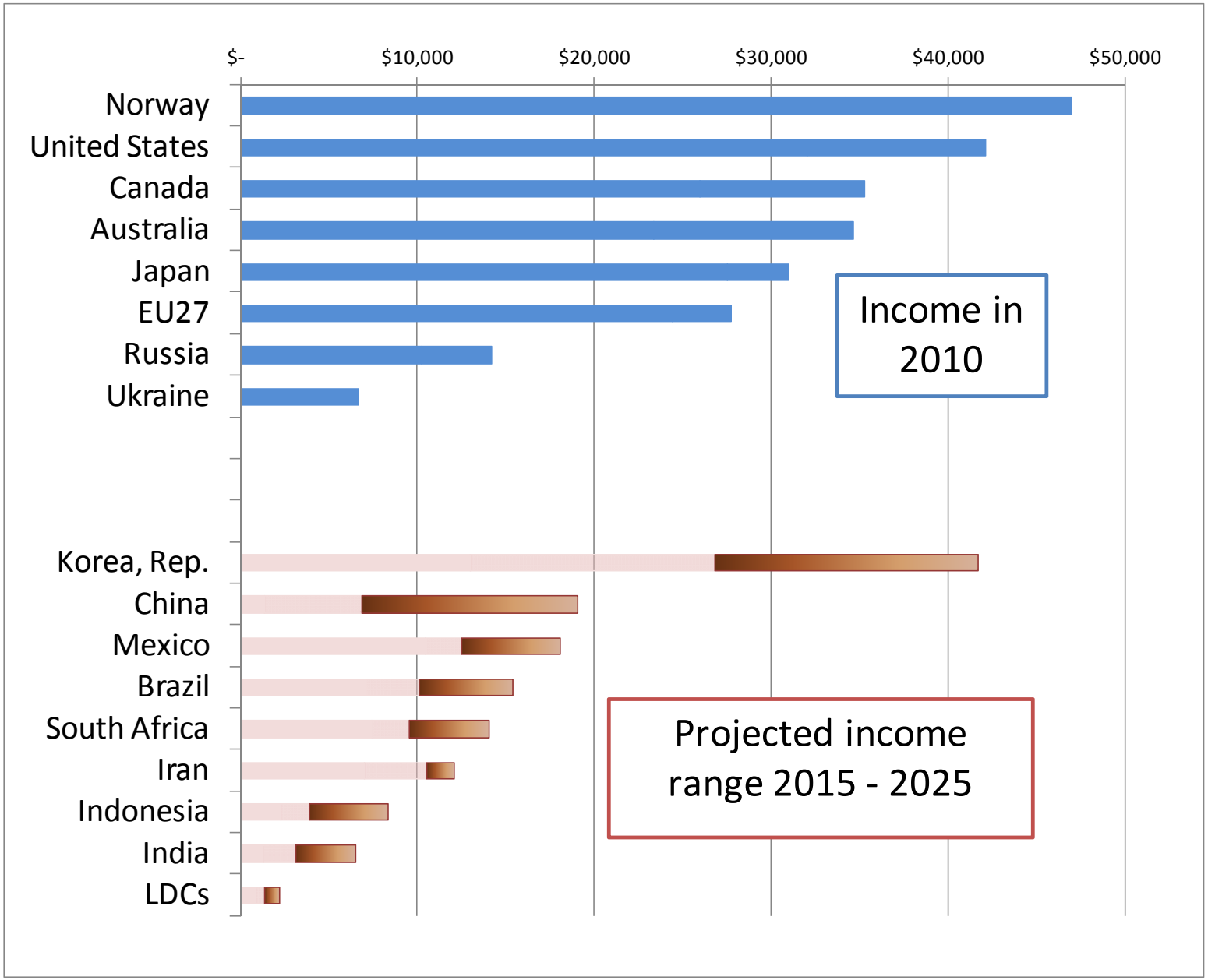




20

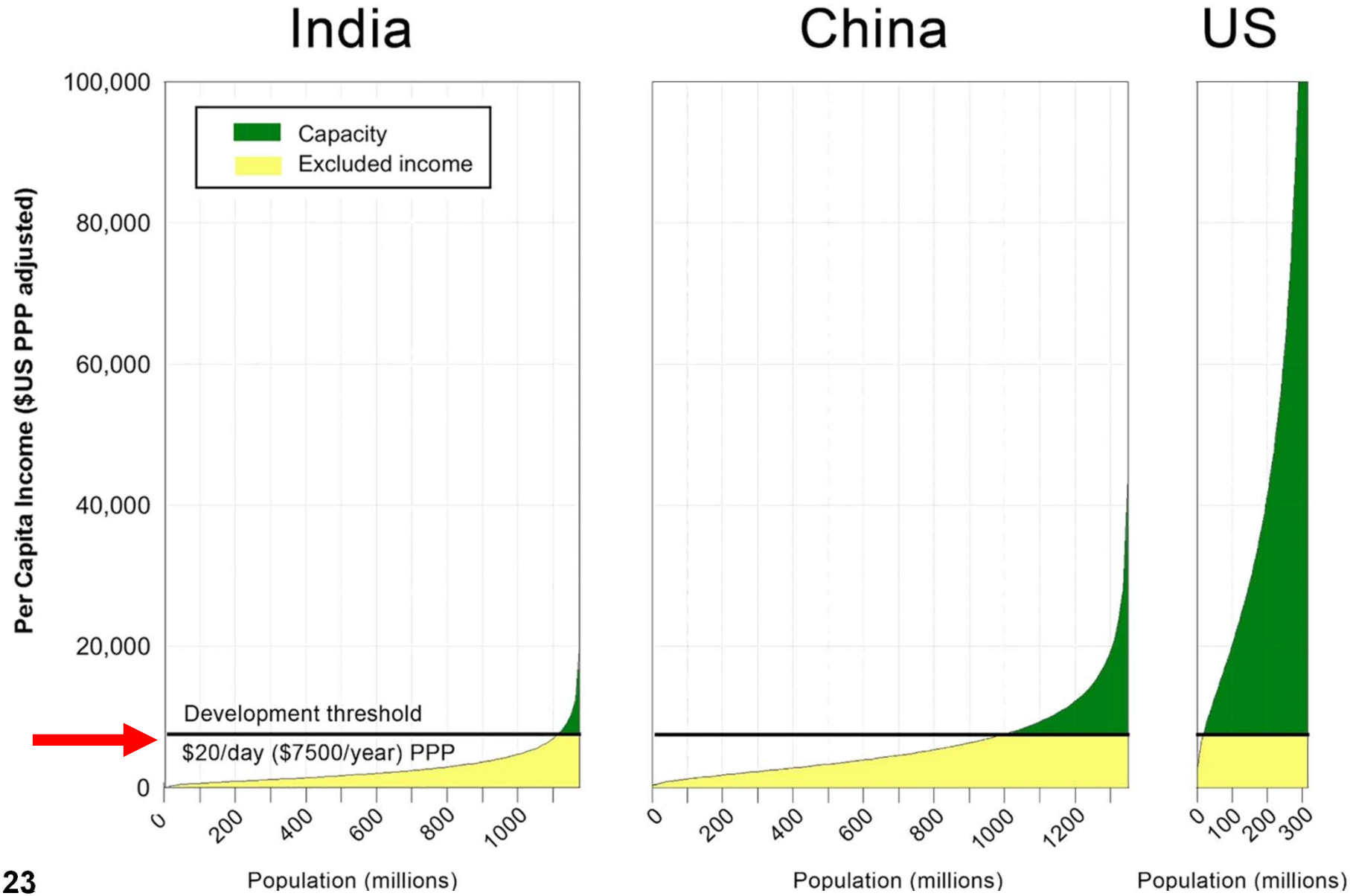
21

Per Capita income in year that emissions peak



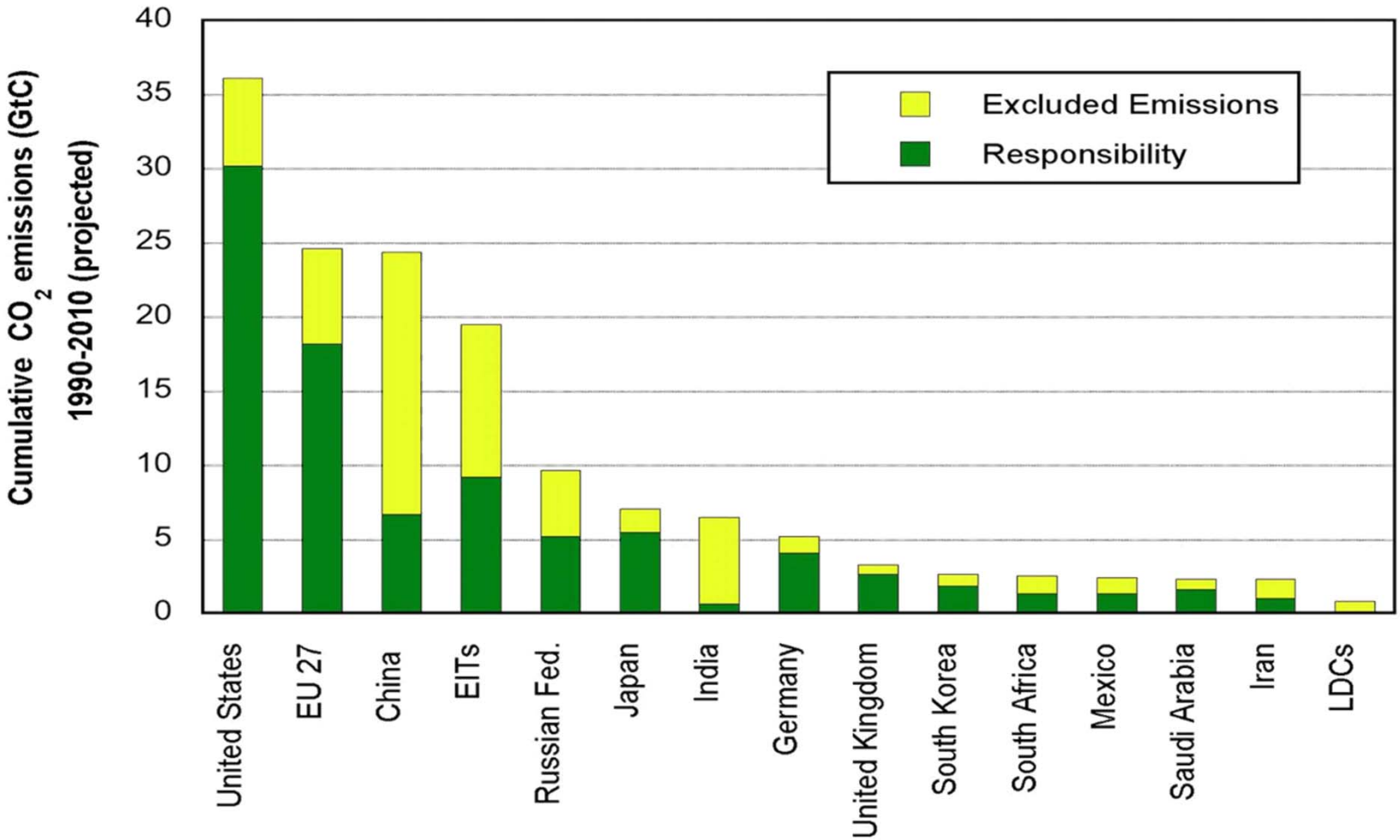
Sources: World Development Indicators Databank (World Bank, May2013); Incomes in PPP US$

Income and Capacity

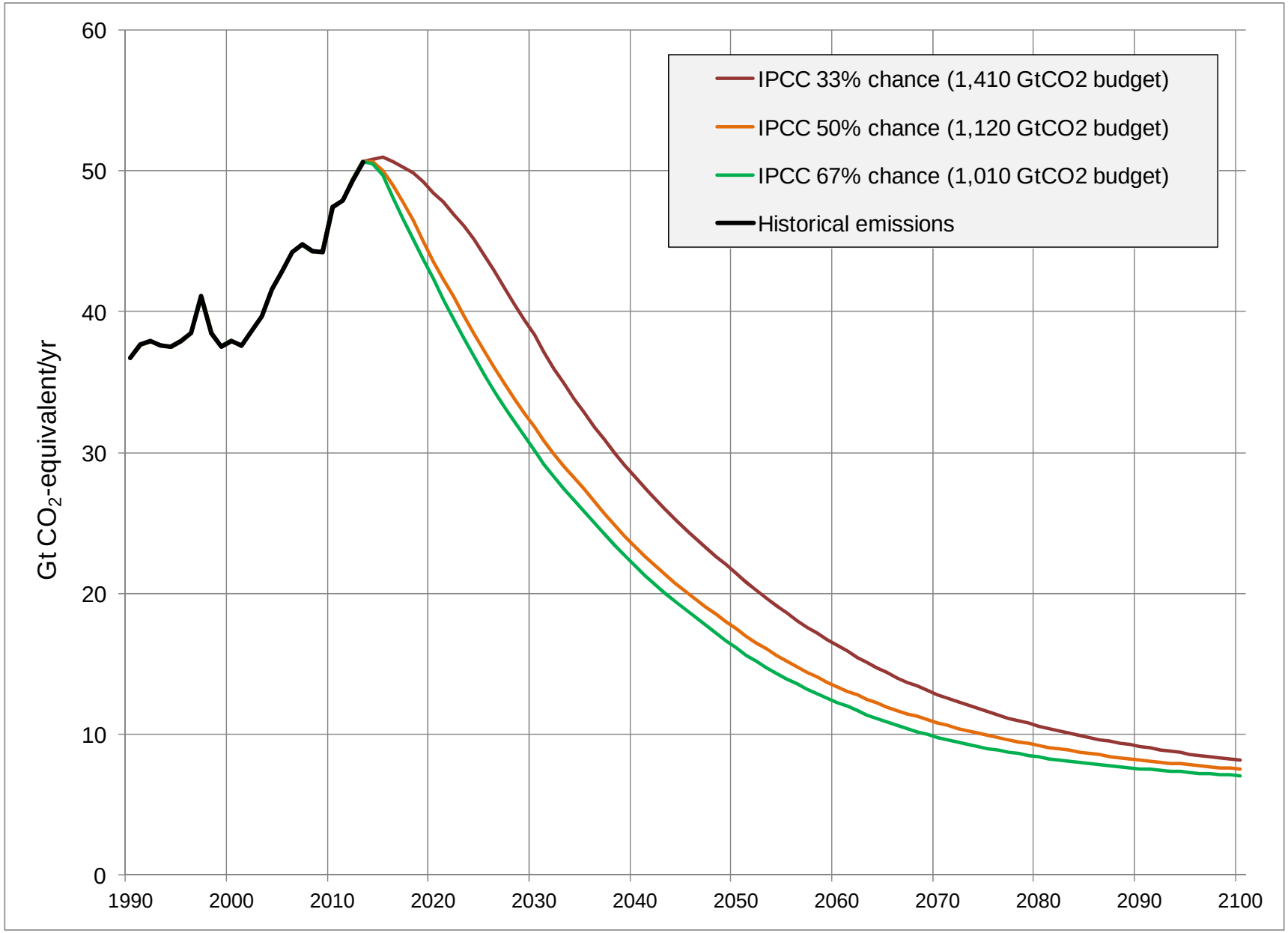


Emissions and Responsibility

fossil CO_2 (cumulative since 1990 showing portion defined as "responsibility")

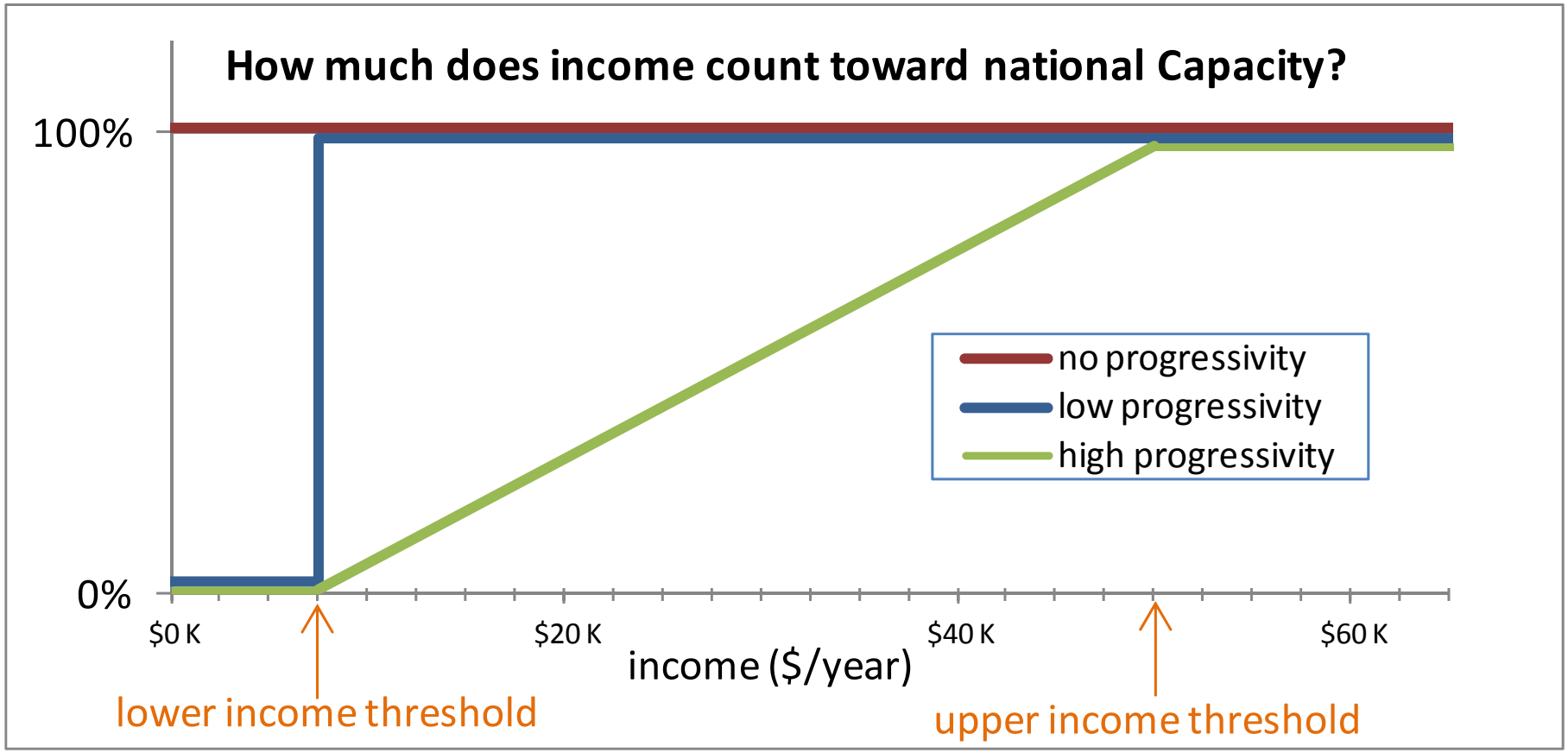


Three 2° budgets (IPCC WGI)



25

Capacity: three progressivity settings



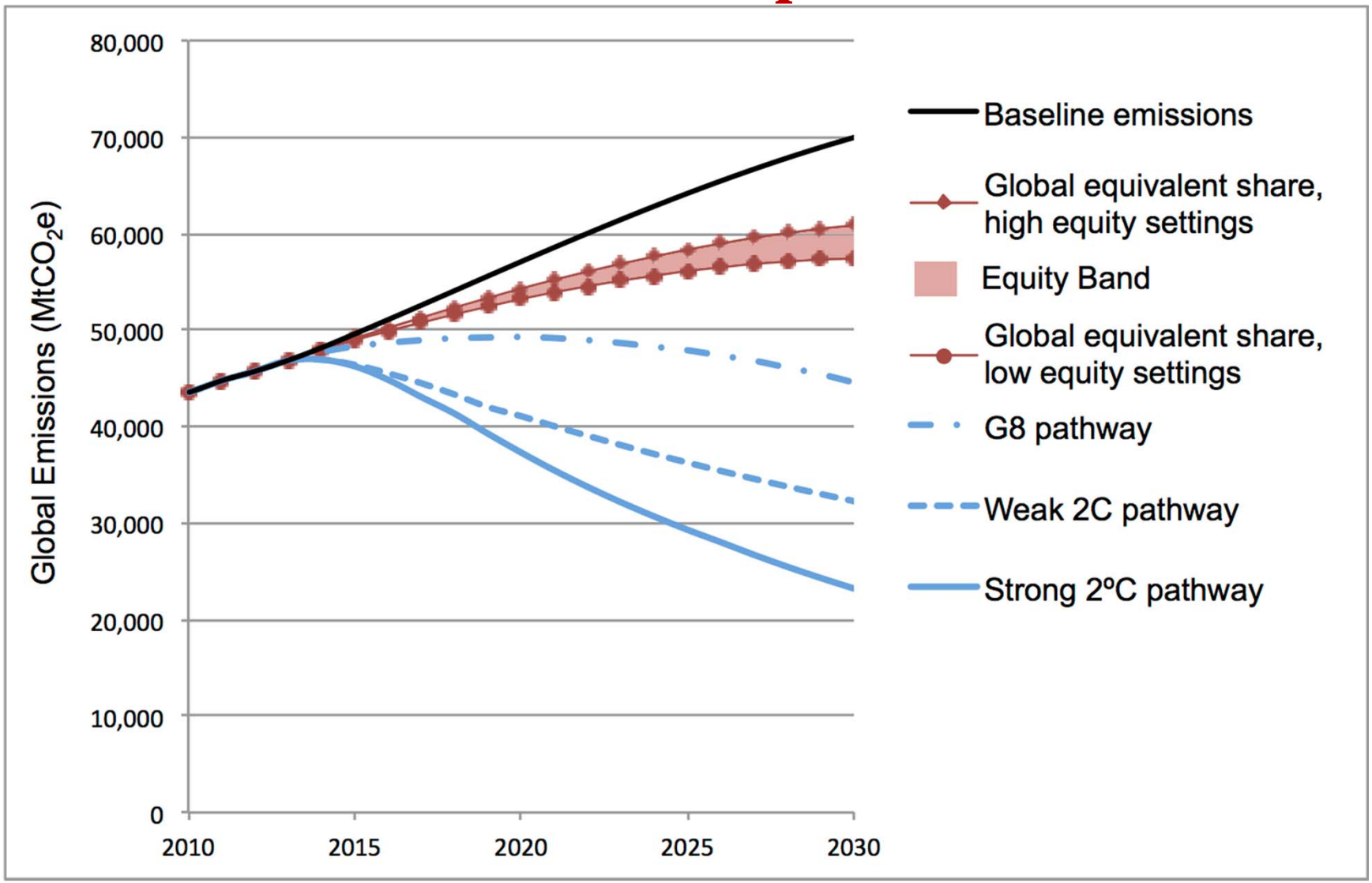
26

The EU pledge, and what would be achieved if other countries pledged "comparable efforts"

	High Equity Settings		Low Equity Settings	
	Fair share (%)	Mitigation (GtCO2e)	Fair share (%)	Mitigation (GtCO2e)
EU's INDC	22%	2.0	16%	2.0
Rest of World	78%	7.1	84%	10.5
Total Mitigation	100%	**9.1**	100%	**12.5**
G8 pathway	**25.3**			
Weak 2°C pathway	**37.7**			
Strong 2°C pathway	**46.7**			

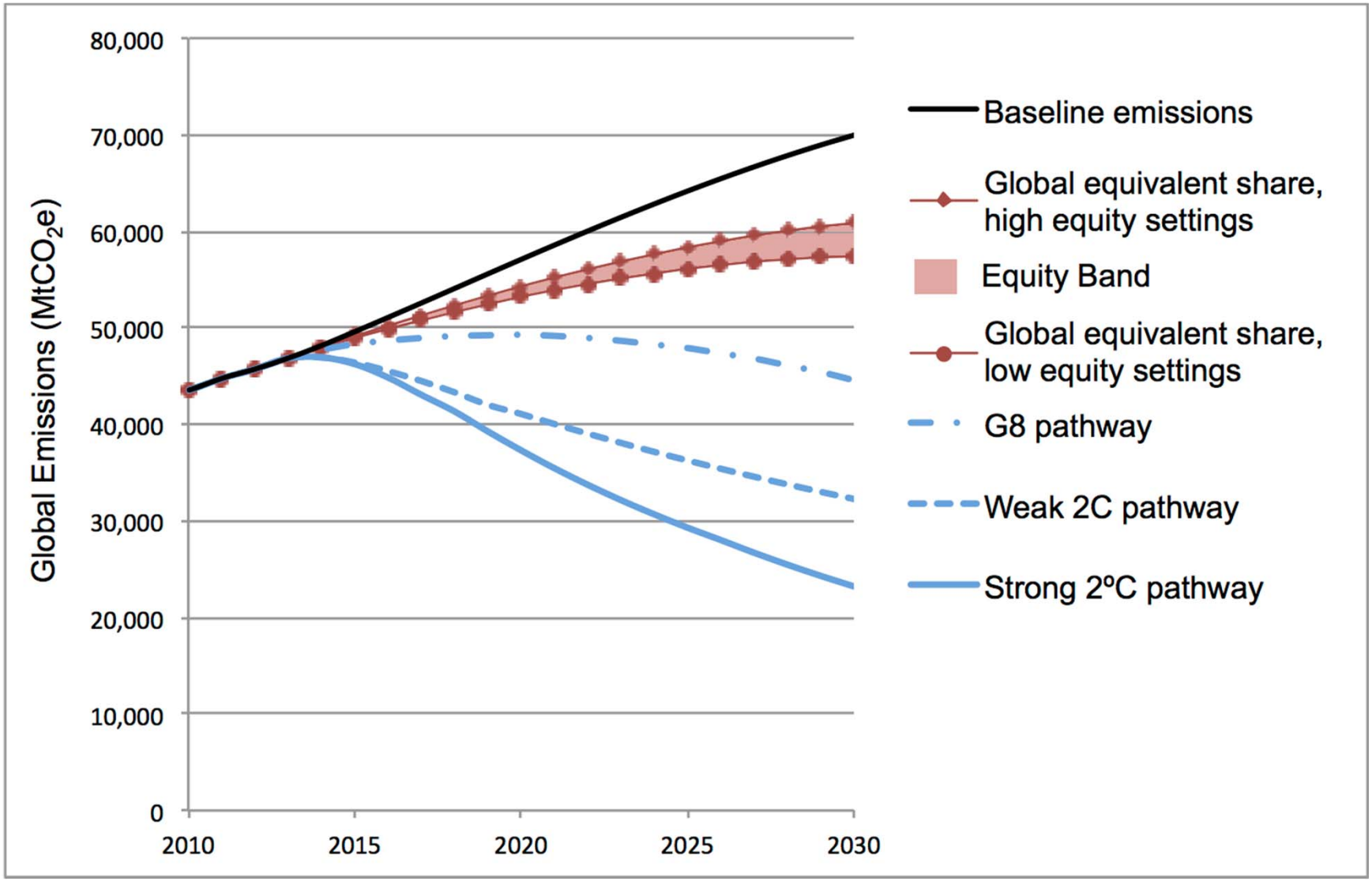
27

Do Unto Others – three paths



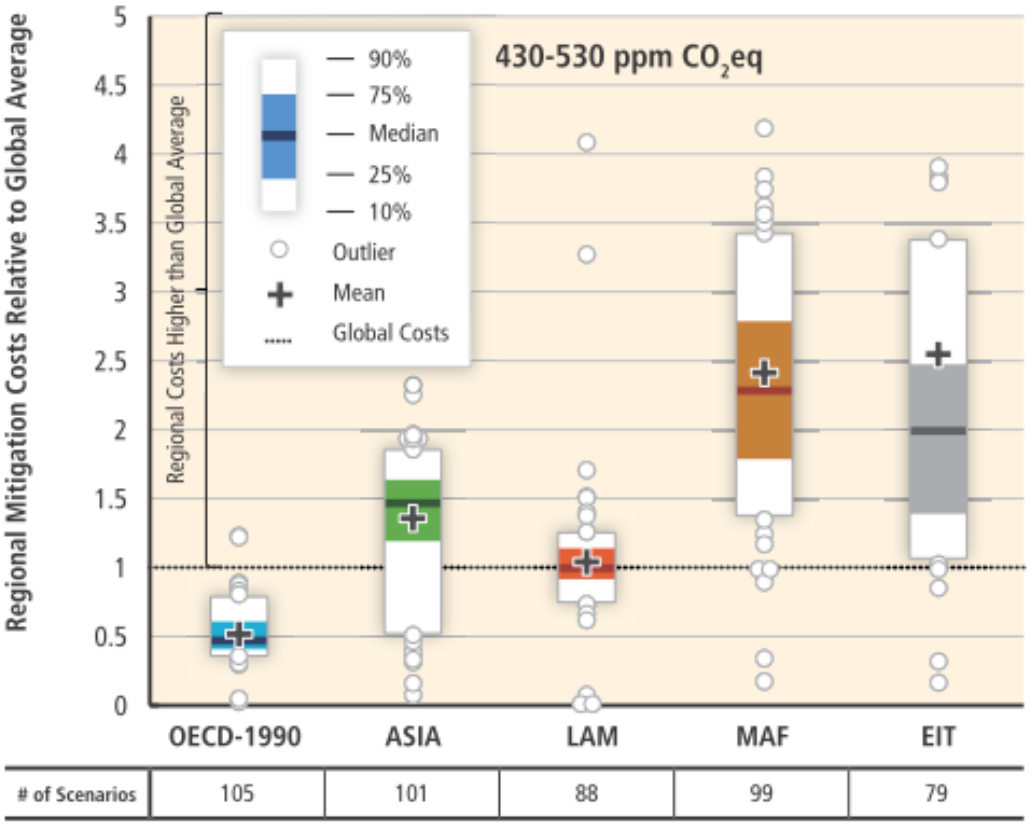
28

Example: EU, plus comparable efforts by others



29

How is mitigation effort globally distributed?



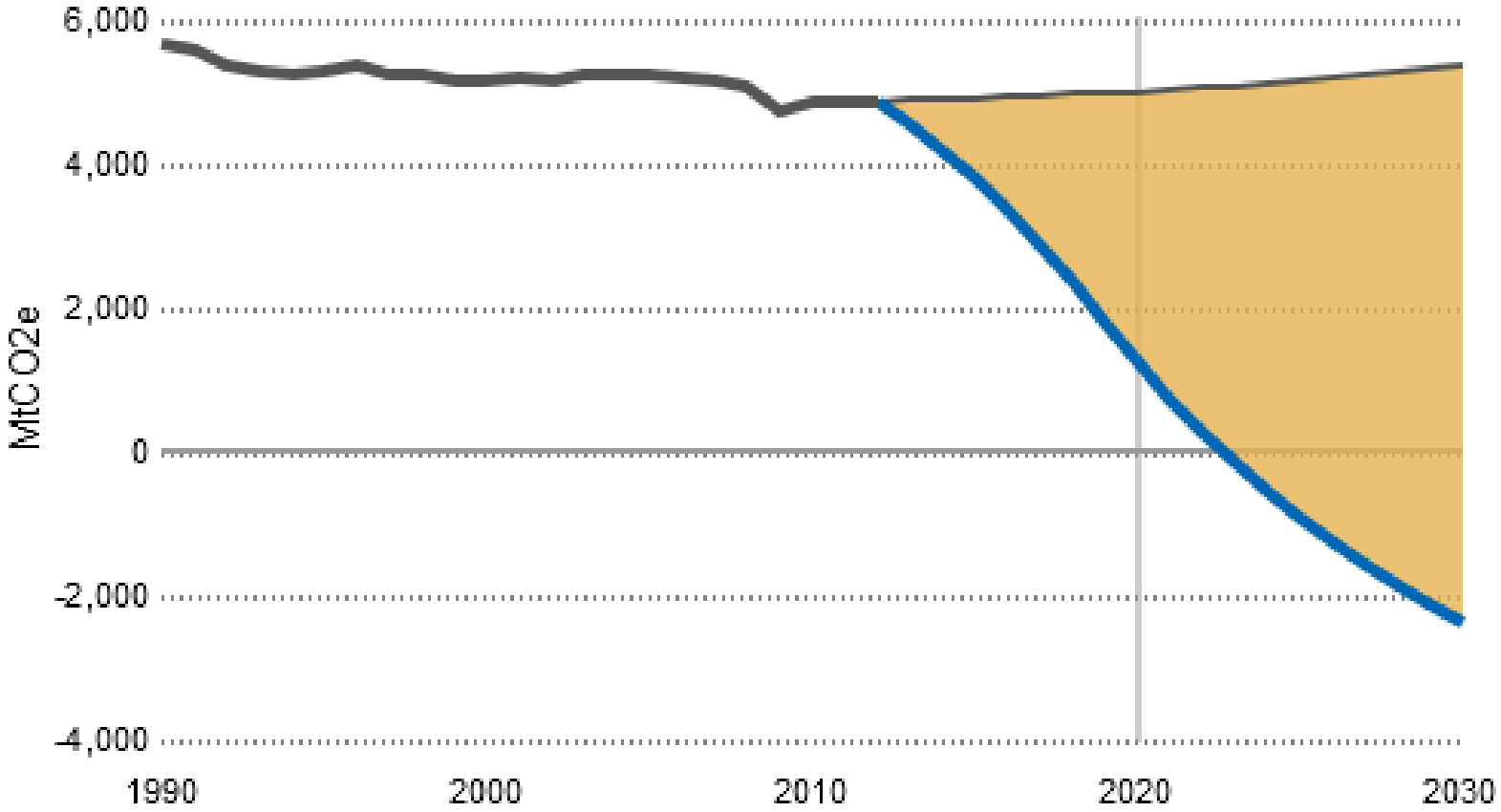
IPCC AR5 WGIII, Fig. 6.27

Expressed as costs (% of GDP)

- OECD: mitigation expenditures are lowest
- Latin America: 2x higher
- Asia: 3x higher
- Mid. East/Africa, EITs: 4-5x higher

This is how costs would be distributed if each country had to bear its own mitigation costs.

European Union



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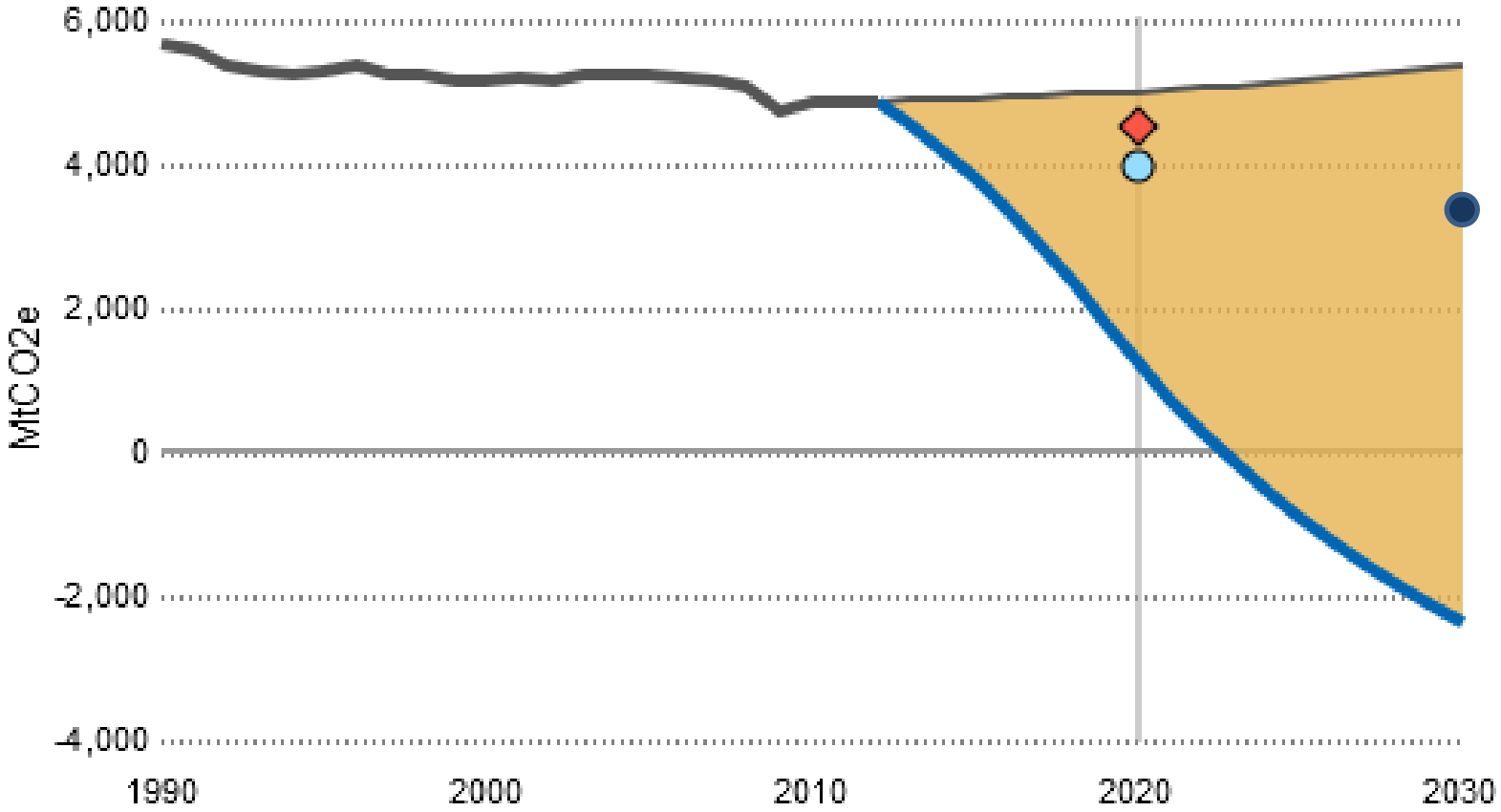

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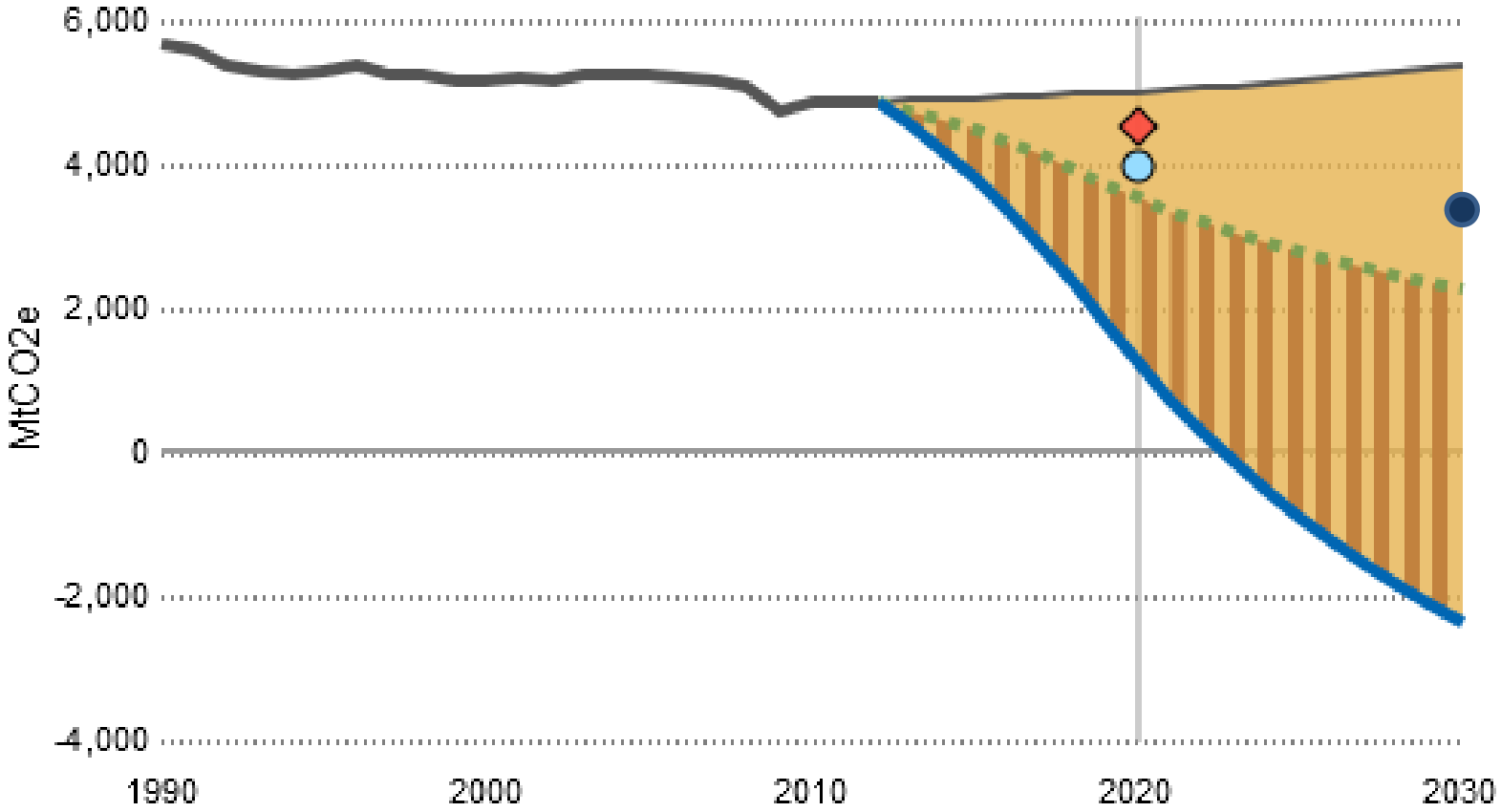

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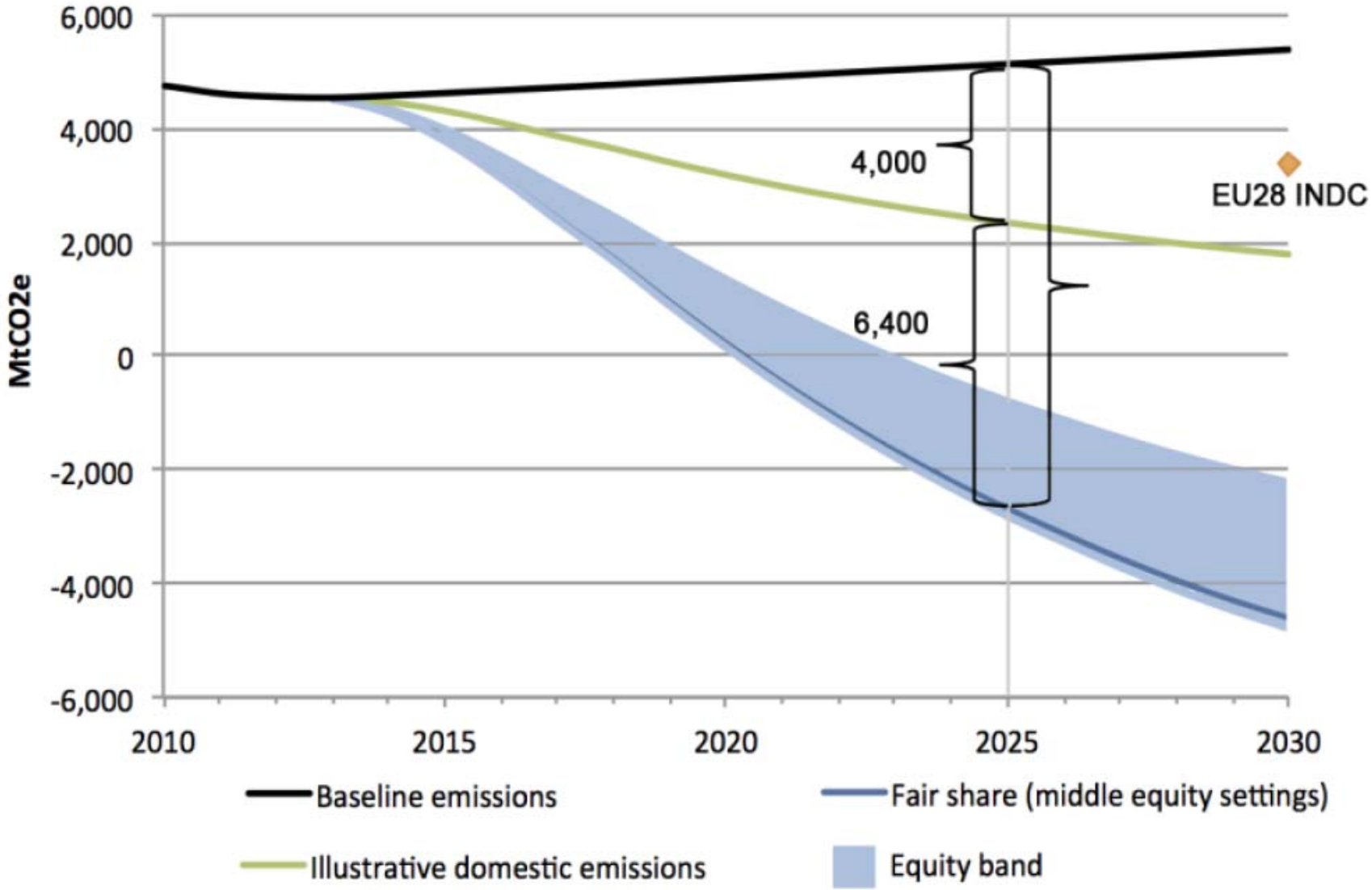
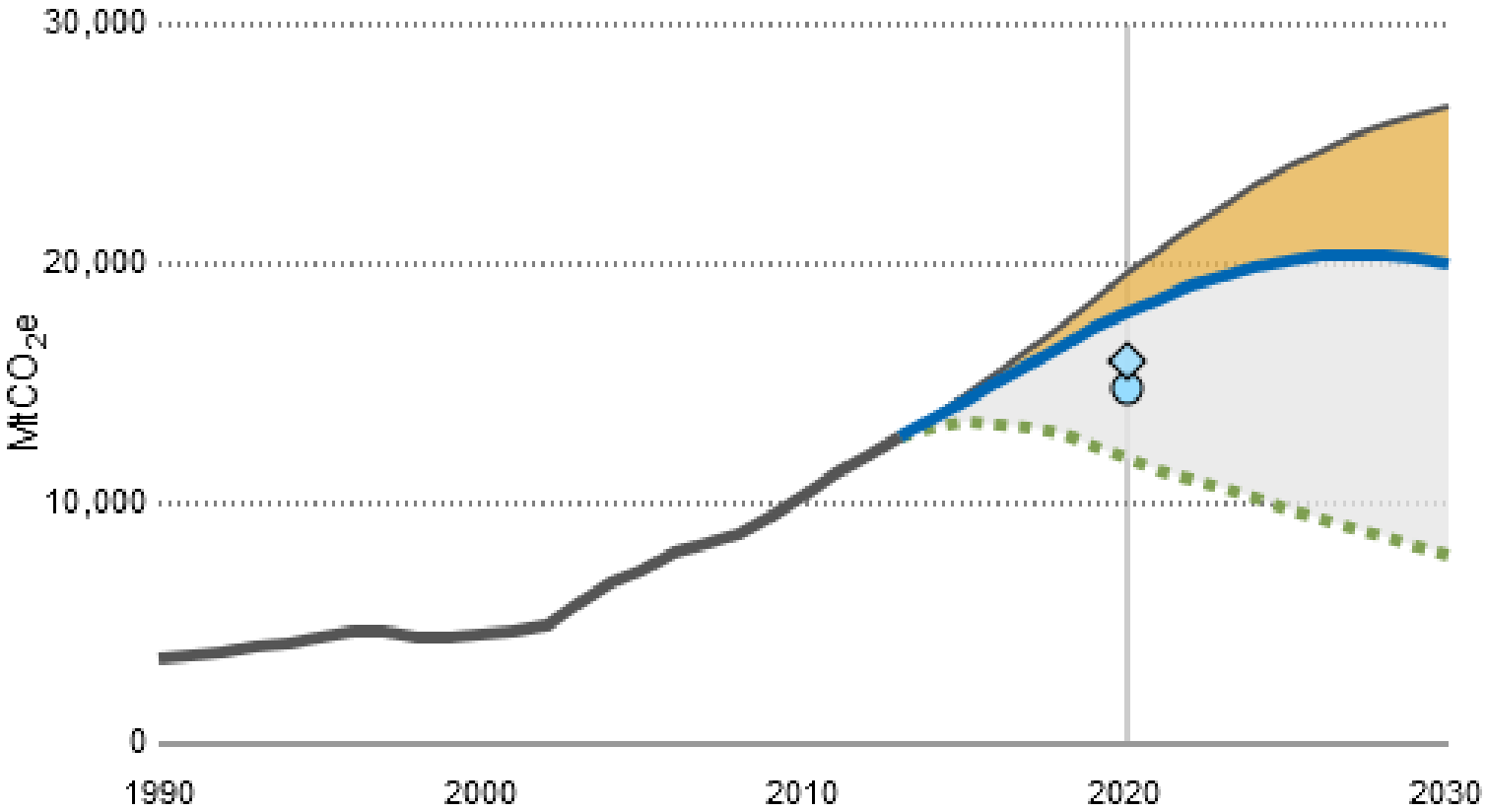
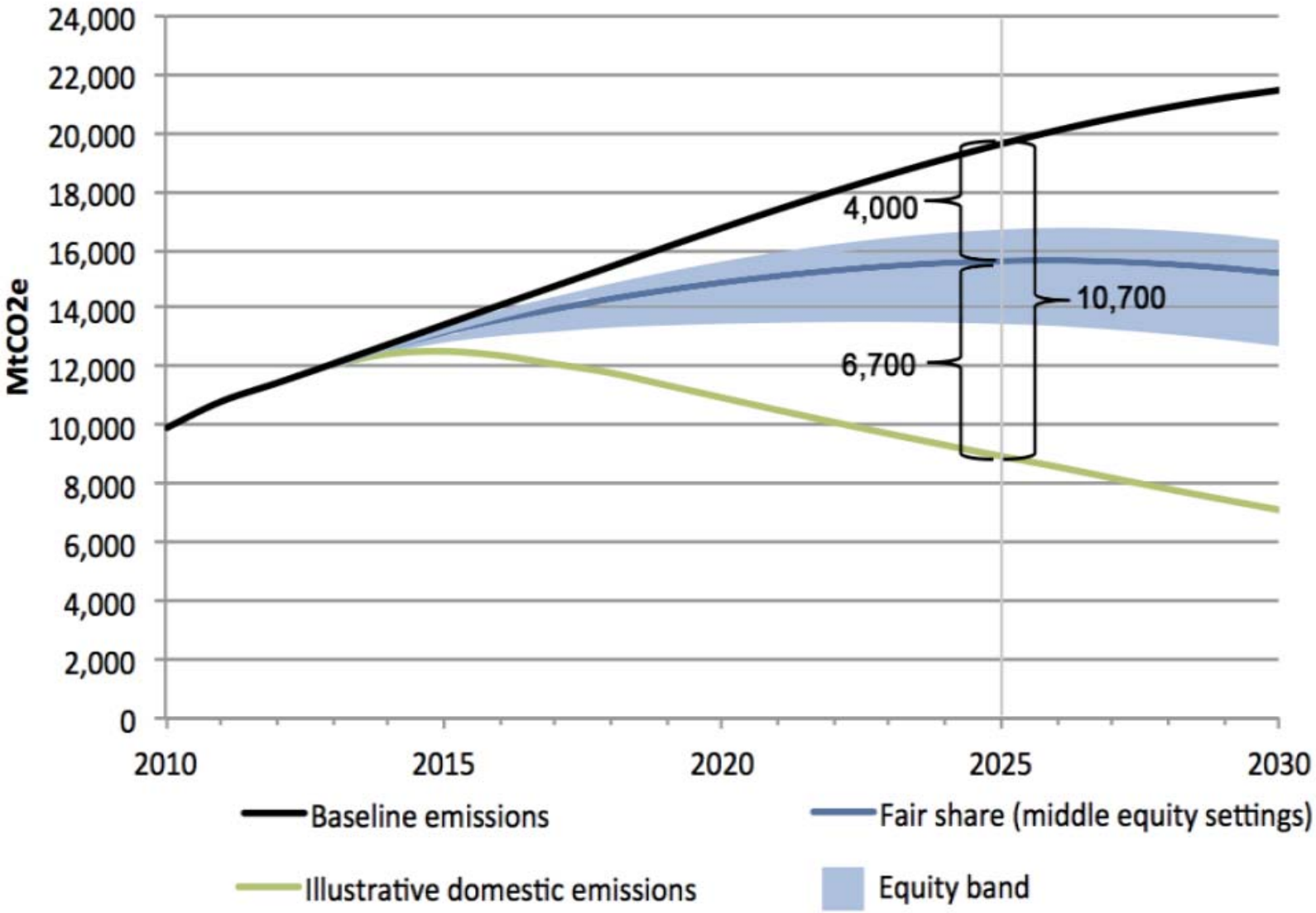


China

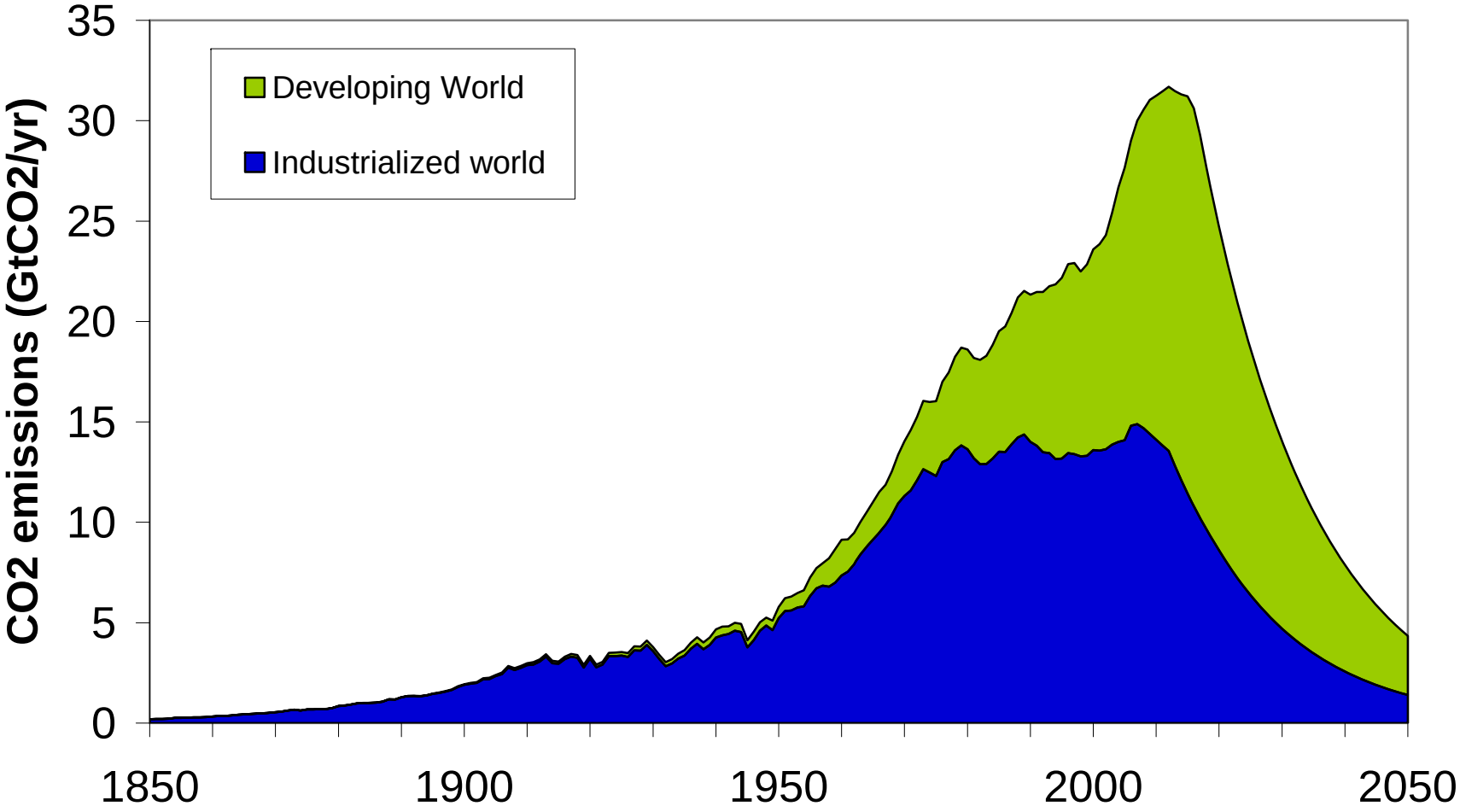


35

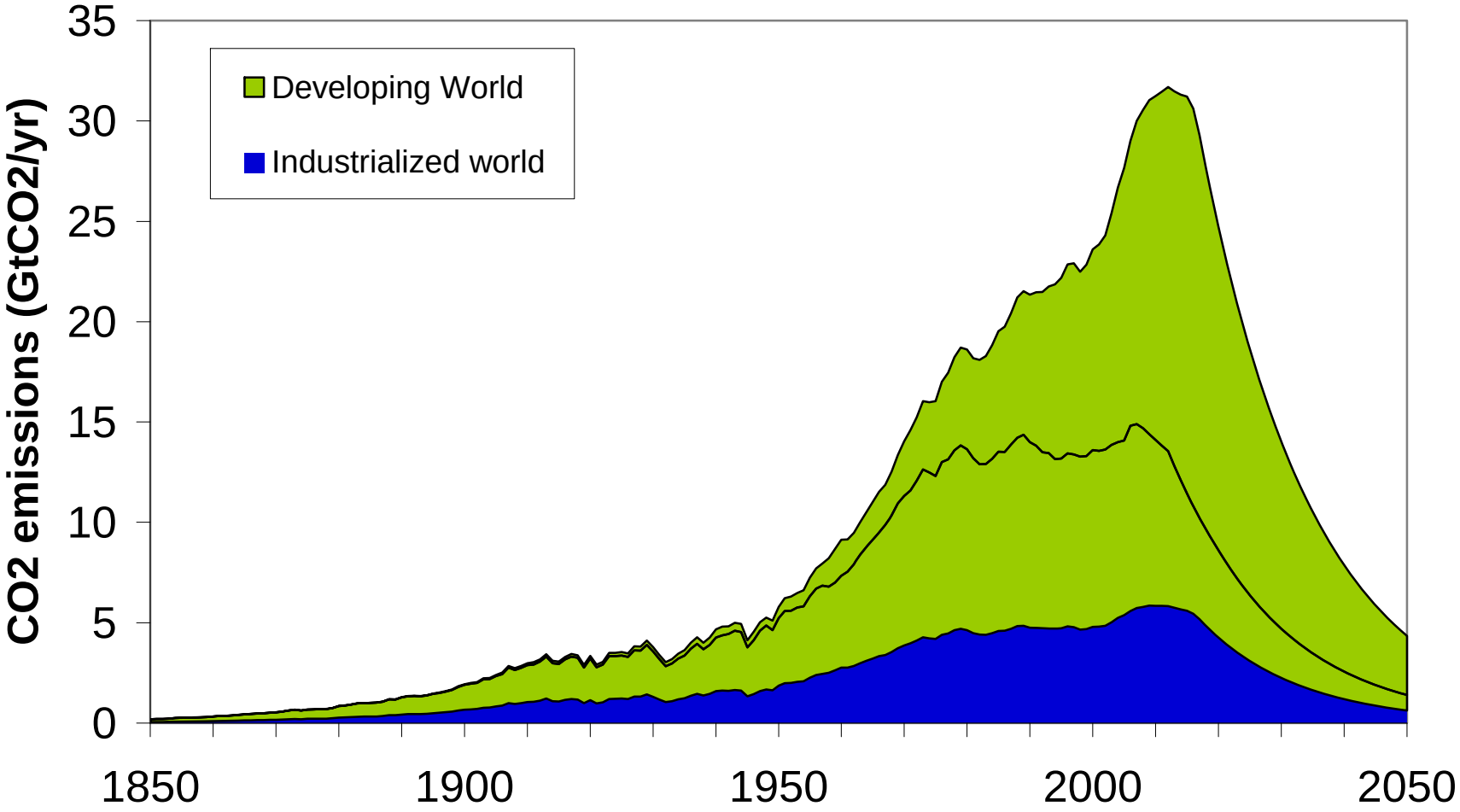
China


24,000
22,000
20,000
18,000
16,000
14,000
12,000
10,000
8,000
6,000
4,000
2,000
0
MtCO2e
2010
2015
2020
2025
2030
4,000
10,700
6,700
Baseline emissions
Fair share (middle equity settings)
Illustrative domestic emissions
Equity band

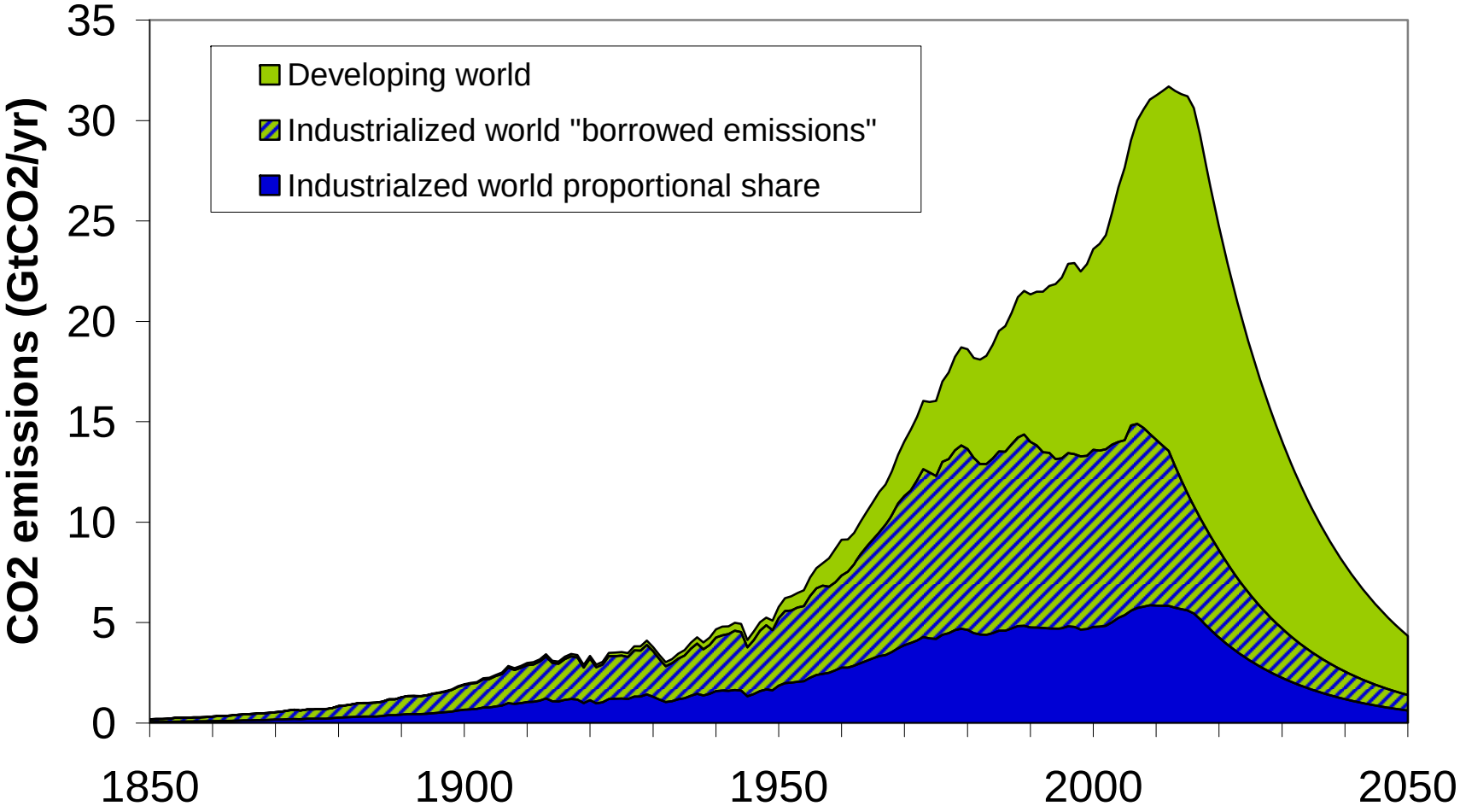
Global CO2 emissions
Industrialized world vs developing world



Global CO2 emissions
Industrialized world vs developing world
(proportional shares)



Global CO2 emissions
showing industrialized world "borrowed emissions"



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