

IL006: Justice and Climate Change



Lecture outline

1. Justice in climate change
2. The 'justice in emissions' problem
3. The 'justice in adaptation' problem
4. The 'justice in loss & damage' problem.

1. Justice in climate change

Normative versus empirical/descriptive research.

Looking at the justifications activists, politicians, citizens offer concerning...

- why we should care about climate change?
- why we do something about climate change?
- what we should do?
- who should act?
- who should pay?

and evaluating them

Three pillars of the climate response

1. **Mitigation**: ‘anthropogenic intervention to reduce the sources or enhance the sinks of greenhouse gases’ (Klein and Huq, 2007).
2. **Adaptation**: ‘adjustment in natural or human systems in response to actual or expected climatic stimuli or their effects, which moderates harm or exploits beneficial opportunities’ (Klein and Huq, 2007).
5. **Loss and damage**: ‘action on addressing loss and damage associated with the adverse effects of climate change, taking into account national development processes’ (UNFCCC, 2012: Decision 3/CP.18).

Elements of a theory of climatic justice

Climatic justice: “the fair distribution of benefits and burdens arising from human activities that alter the stock of greenhouse gases in the atmosphere”

Three key elements:

- How should GHG emissions (rights) be distributed across states and generations (§2)?
- Who should bear the burdens of action to adapt to climate change so as to reduce its harmful consequences (§3)?
- How should the costs of harmful consequences of climate to which populations cannot adapt be distributed (§4)?

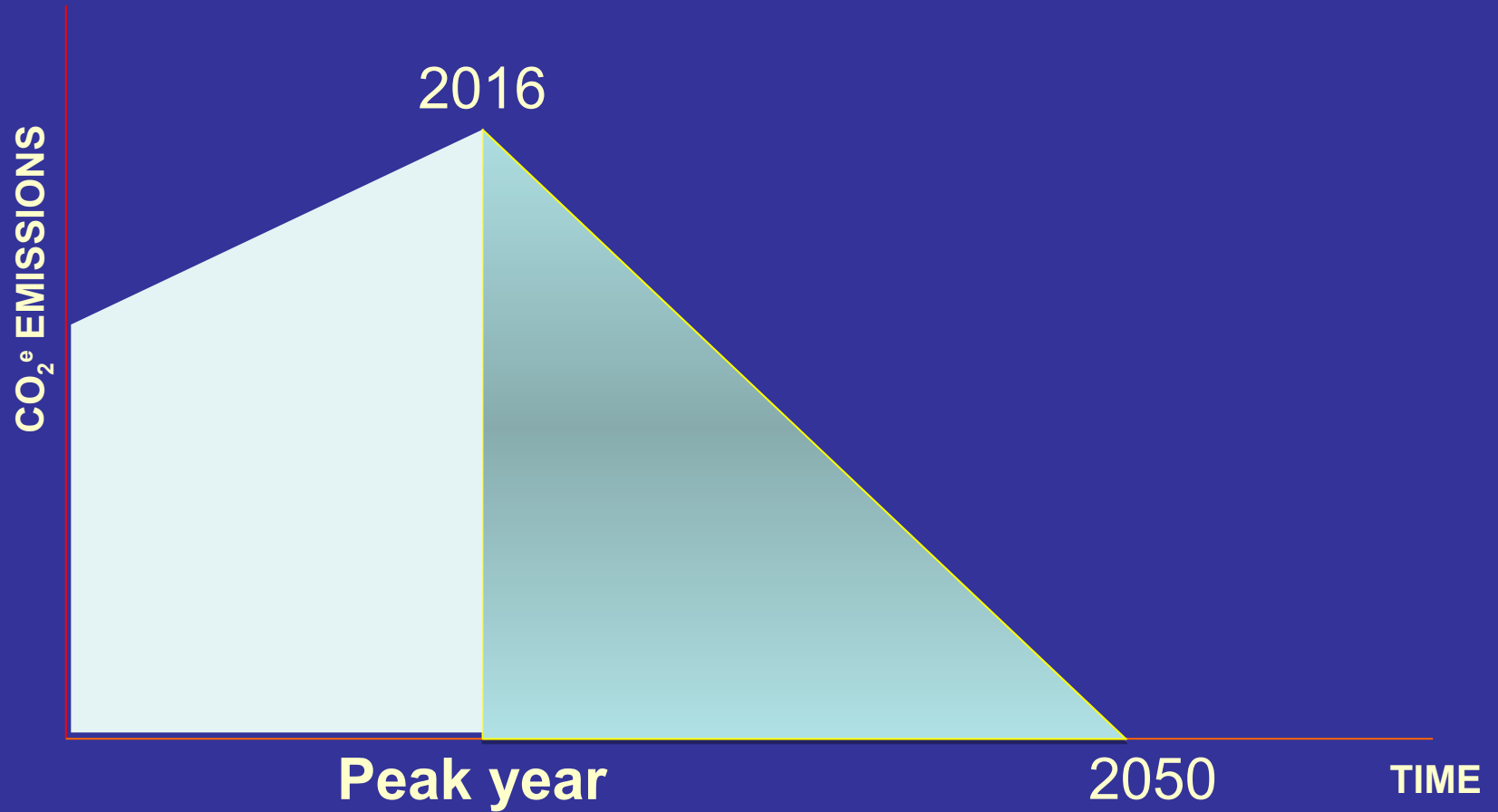
2. 'Justice in Emissions'

“We agree that deep cuts in global emissions are required according to science...to reduce global emissions so as to hold the increase in global temperature below 2 degrees Celsius, and take action to meet this objective consistent with science and on the basis of equity. We should cooperate in achieving the peaking of global and national emissions as soon as possible, recognizing that the time frame for peaking will be longer in developing countries” (**Copenhagen Accord, 2009**).

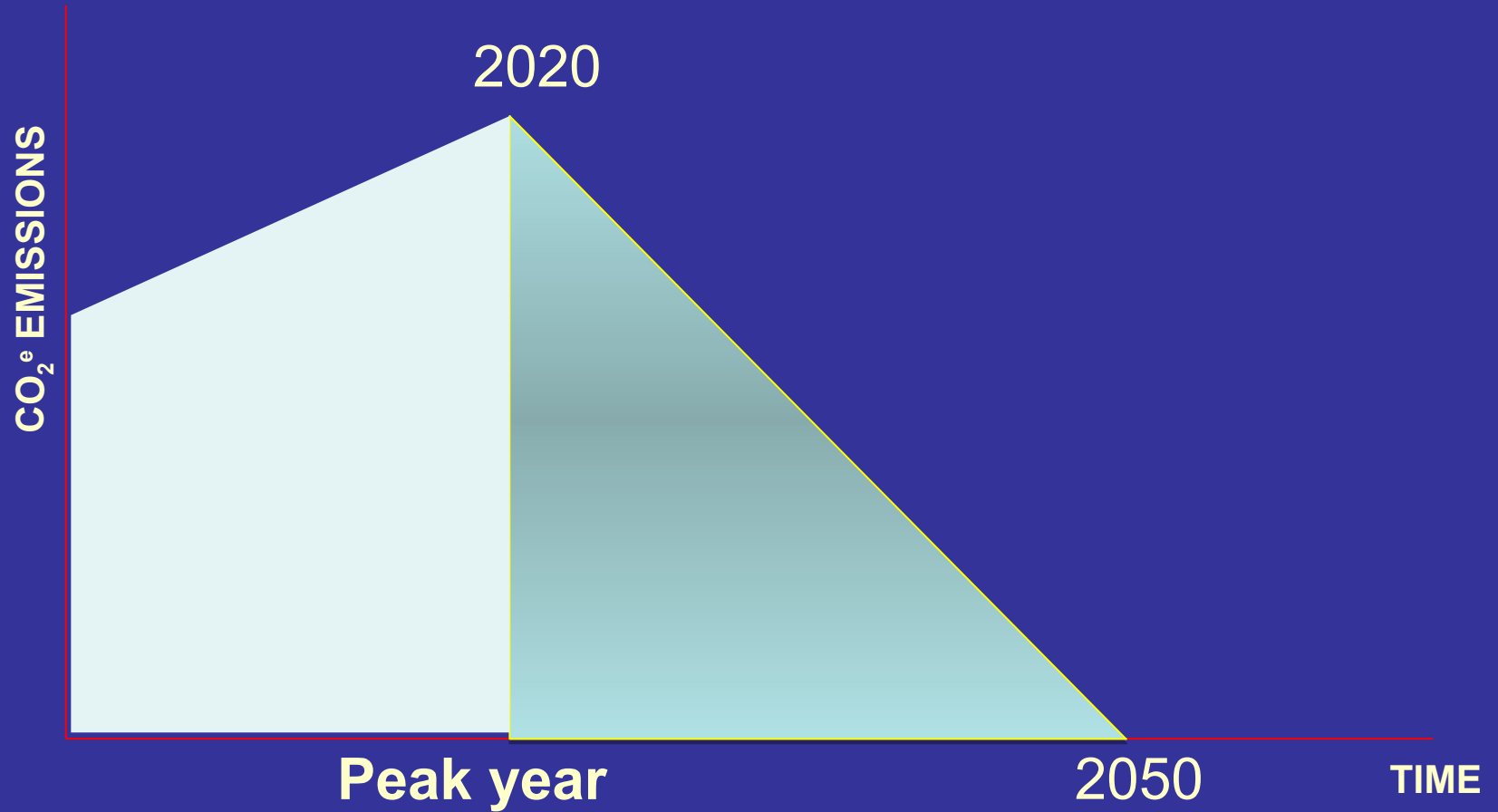
Avoiding dangerous climate change: The 2°C challenge:

- A. Total amount of carbon (eg the 'trillionth tonne')
- B. Global peak date (eg 2016 or 2020)
- C. Global emissions reductions rate post-peak

Pathways to safety (Starkey, Bows, Anderson)



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2°C Pathways (Meinshausen *et al*, 2009)

Min/max probability of >2C warming (range mean)	Emissions Peak	CO ₂ ^e budget 2000-49 (GtCO ₂ ^e)	Annual CO ₂ ^e cuts post peak (%)
39-80% (60%)	2016	2160	1.6-1.7
	2020	2160	3.2-3.3
29-70% (50%)	2016	1998	2.8-3.0
	2020	1998	5.3-5.7
21-60% (41%)	2016	1836	4.6-5.0
	2020	1836	8.9-10.0
15-50% (38%)	2016	1654	8.0-9.1
	2020	1654	17.8-22.8

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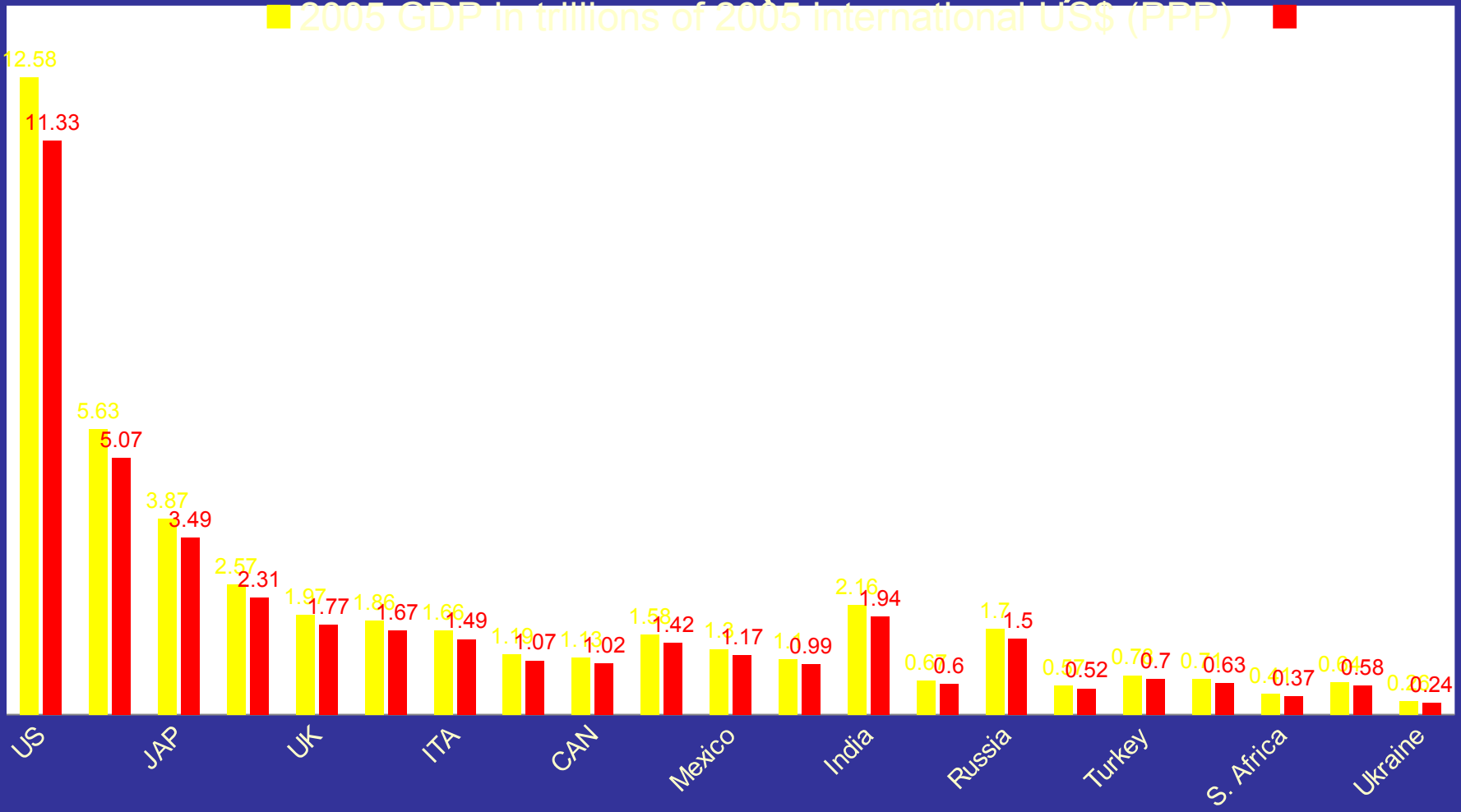
Justice in emissions: four principles

- Equal emissions cuts
- Equal costs of making emissions cuts
- Equal per capita emissions entitlements
- Emissions sufficiency

2. Equal burdens/sacrifice

GDP in 2005 (World Bank)

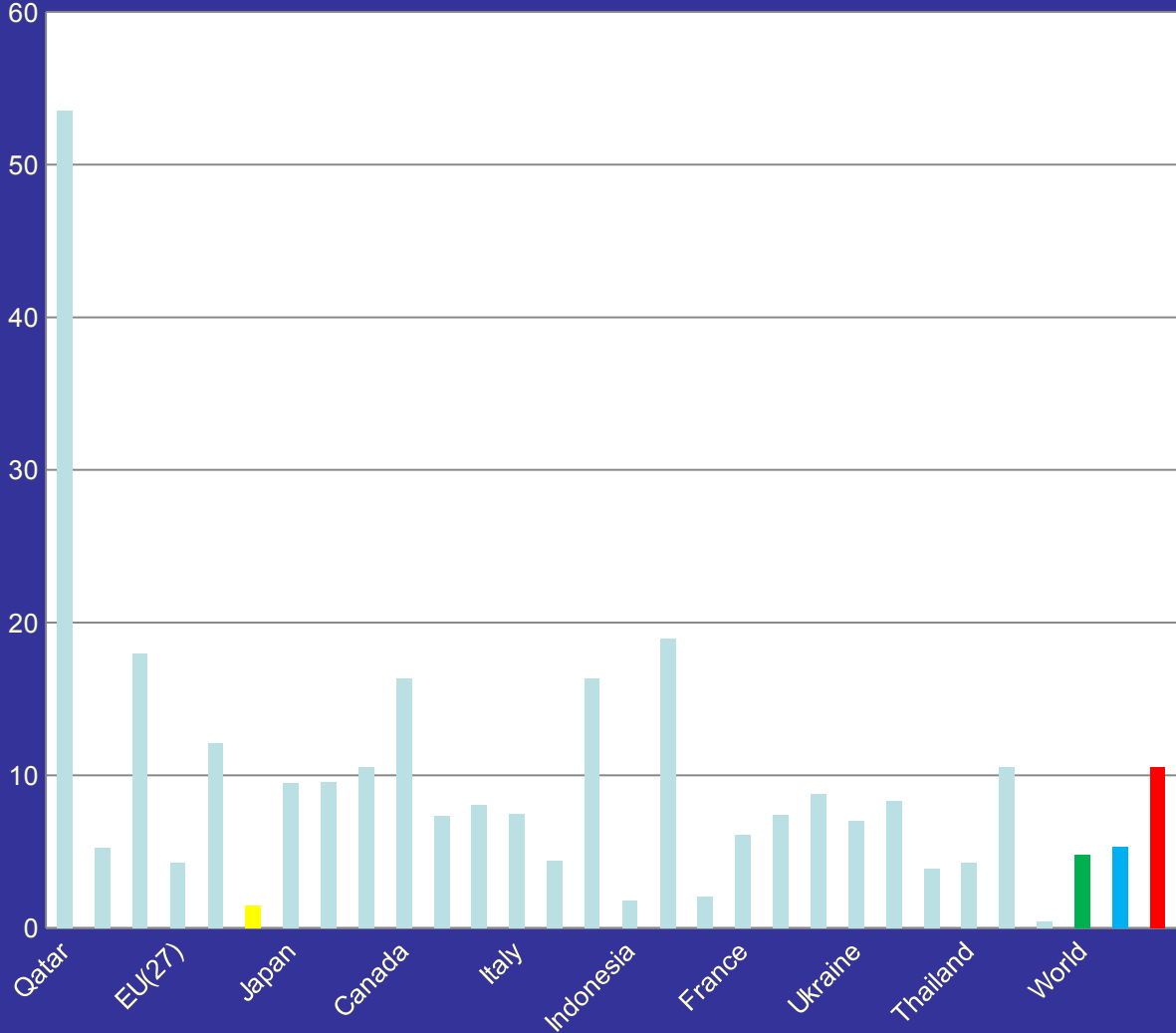
■ 2005 GDP in trillions of 2005 international US\$ (PPP)



3. Equal emissions rights

National CO2 emissions in 2008 (CDIAC: 2011)

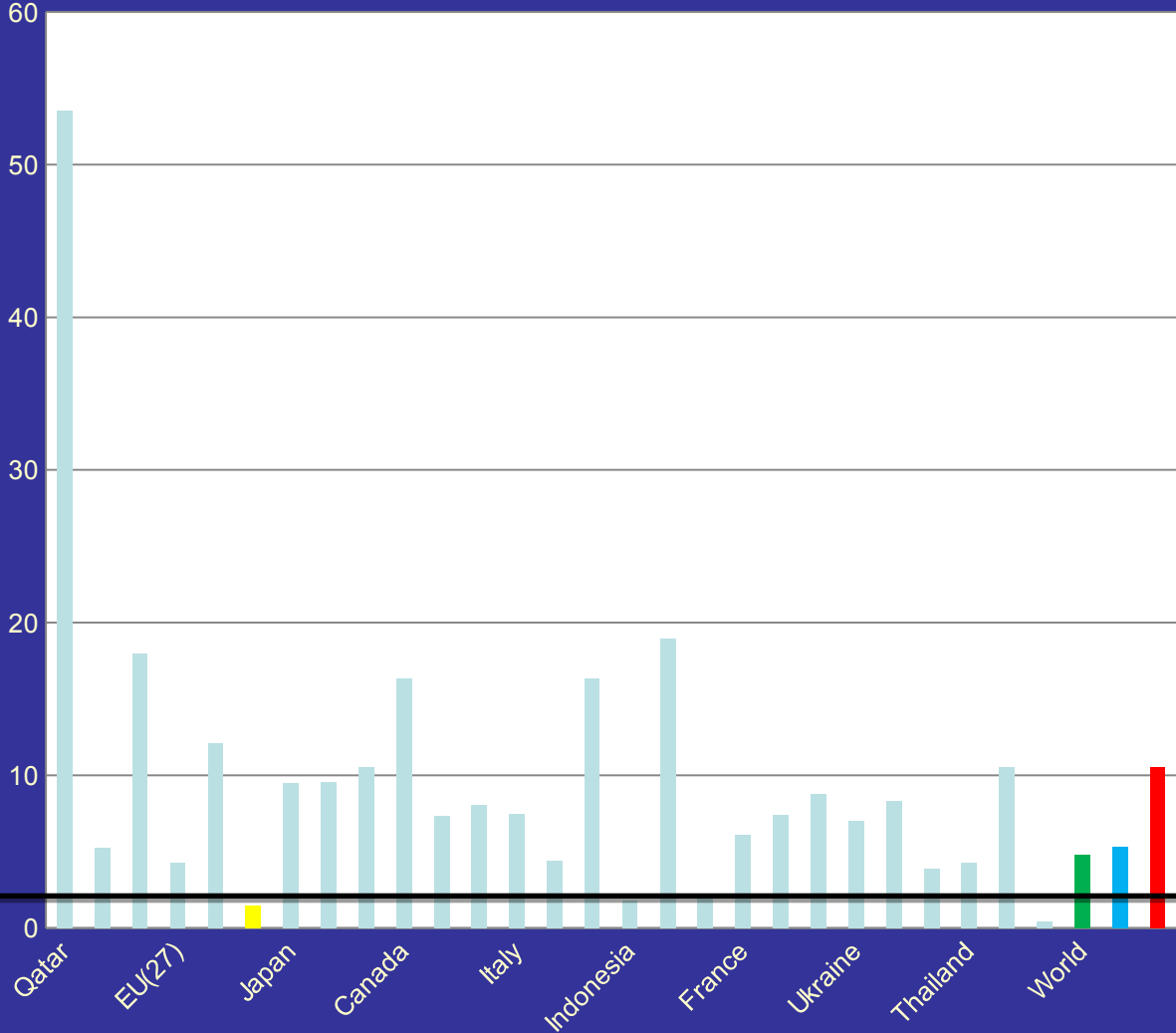
CO2 per capita (tonnes)



3. Equal emissions rights

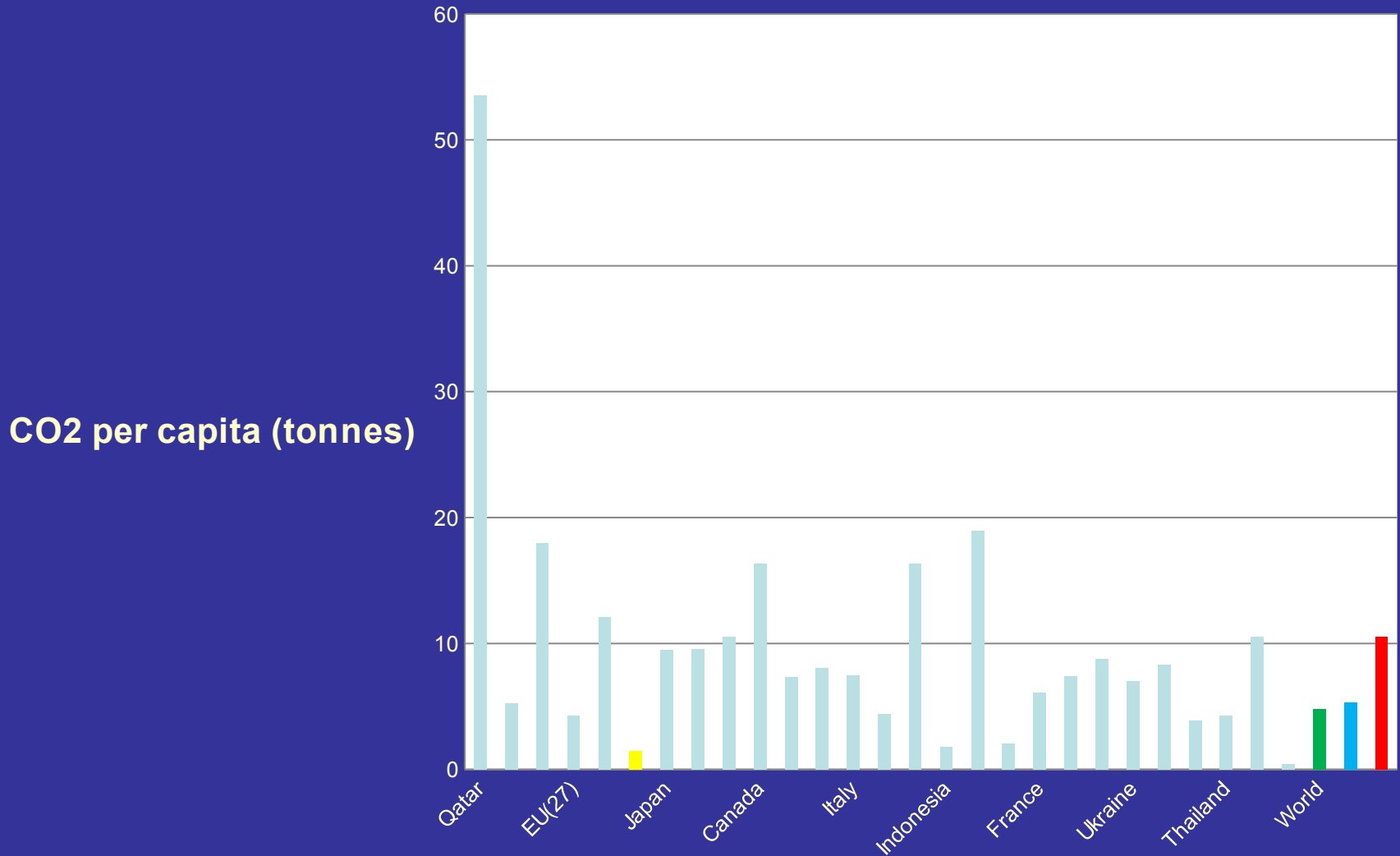
National CO2 emissions in 2008 (CDIAC: 2011)

CO2 per capita (tonnes)



4. Emissions sufficientarianism

National CO2 emissions in 2008 (CDIAC: 2011)



3. 'Justice in adaptation'

Who should bear the burdens associated with undertaking action to adapt to climate change so as to reduce its harmful consequences?



Common but differentiated responsibility (CBDR)

“the global nature of climate change calls for the widest possible cooperation by all countries and their participation in an effective and appropriate international response, in accordance with their **common but differentiated responsibilities and respective capabilities and their social and economic conditions**” (UNFCCC: 1992)

Three principles

- ‘Contribution to problem’ (CPP)
- ‘Ability to Pay’ (APP)
- ‘Beneficiary Pays’ (BPP)

3.1. The 'Contribution to Problem' Principle

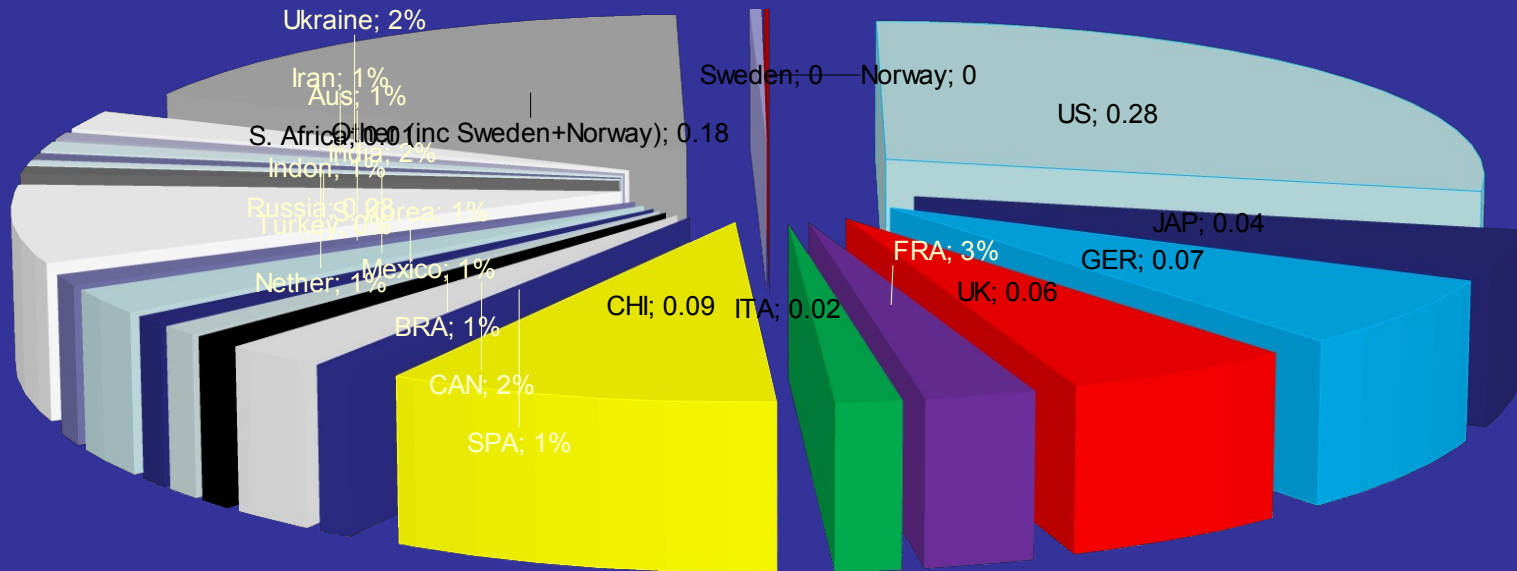
A pollutes the atmosphere thereby harming B

A should bear the burden associated with preventing, reducing or compensating for B's disadvantage.

Singer, 2002

“to put it in terms a child can understand, as far as the atmosphere is concerned, the developed nations broke it. If we believe that people should contribute to fixing something in proportion to their responsibility for breaking it, then the developed nations owe it to the rest of the world to fix the problem with the atmosphere”

Cumulative CO2 emissions 1850-2008 (WRI: CAIT)



Operationalizing the CPP

(1) % of global climate burden = % of cumulative CO₂ emissions 1850-2008 (WRI: CAIT)

US (28%) China (9%) Russia (8%)

Germany (7%) UK (6%) Other (42%)

(3) For every \$1 trillion spent on adaptation projects...

US (\$280 billion) Russia (\$8 billion) China (\$90 billion)

Ger (\$70 billion) UK (\$60 billion) Other (\$420 billion)

Critique

Problem 1: what about natural climate change?

Problem 2: unfair to burden poor polluters?

Problem 3: reasonable ignorance of problem?

3.2 The 'Ability to Pay' Principle (APP)

Agent(s) known or unknown overuse the atmospheric sink thereby harming B.

All existing agents should act to prevent, reduce or compensate for B's harm according to their financial capacity to shoulder this burden.

The APP:

P1: Developed countries have the most resources

P2: 'among a number of [states], all of whom are bound to contribute to some endeavour, the [states] who have the most resources should contribute the most to the endeavour' (Shue 1995)

C: Developed states should do most to combat climate change

Operationalizing the APP

(1) % of global climate burden = % of 2008 GWP (CIA 2008)

US (18%)

Japan (6%)

China (5%)

Germany (5%)

France (4%)

UK (4%)

Other (58%)

(3) For every \$1 trillion spent on adaptation projects...

US (\$180 billion)

Japan (\$60 billion)

China (\$50 billion)

Ger (\$50b)

FR/UK (\$40b)

Other (\$580b)

Critique

Problem 1: the case of rich, low emitters

Problem 2: the case of poor, heavy emitters

Problem 3: identifying who can pay does not explain how much (or why) they should pay.

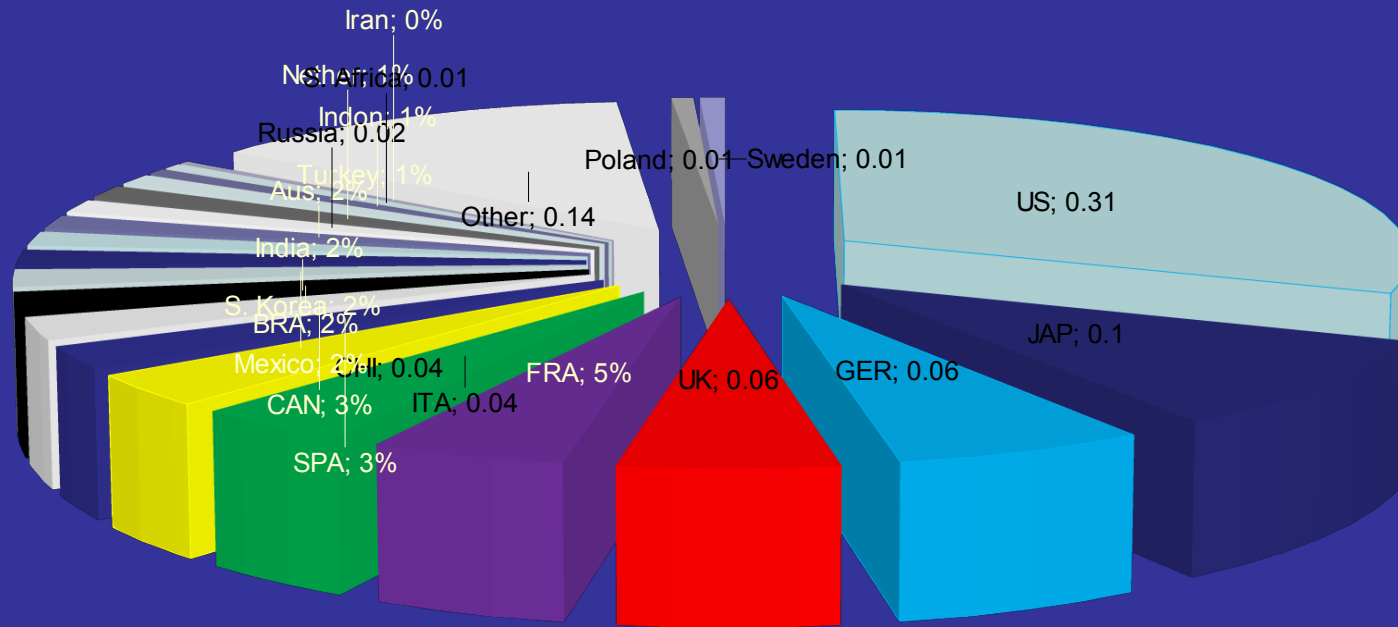
3.3 The 'Beneficiary Pays Principle' (BPP)

P1: The benefits associated with GHG emitting activities 1750-2013 have been distributed unevenly between states.

P2: States should support policies to combat the negative effects of activities from which they and their citizens have benefited.

C: States that have benefited the most from GHG emitting activities should take lead in funding the global climate adaptation response.

Total National Wealth in 2005 (World Bank: 2011)



Operationalizing the BPP

(1) % of global climate burden = % of global wealth in 2005
(World Bank: 2011)

US (31%) China (9%) Russia (2%)

Germany (6%) UK (6%) Other (46%)

(3) For every \$1 trillion spent on adaptation projects...

US (\$310 billion) Russia (\$2 billion) China (\$90 billion)

Ger (\$60 billion) UK (\$60 billion) Other (\$460 billion)

Critique

Problem 1: BPP is too lenient to states that have accumulated, then consumed/lost/wasted, benefits they and their citizens accumulated as a result of industrialization?

Problem 2: benefits of industrialization are for the most part inherited and thus *involuntarily received*. Why should such benefits generate duties to finance global adaption even if a side-effect of their production was climatic change?

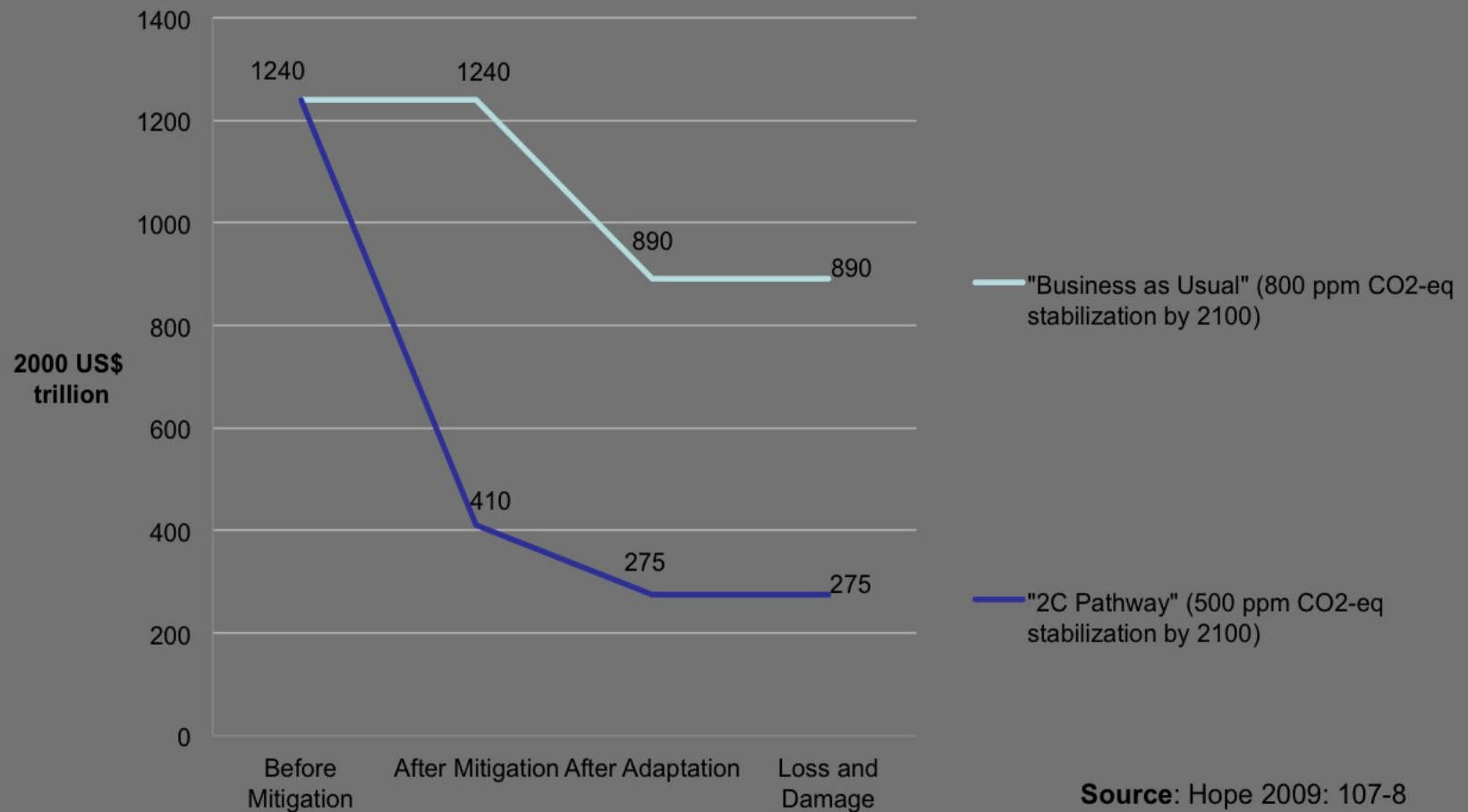
Problem 3: Hard to operationalize: how do we separate the part of this wealth that is (and is not) tainted by association with climate change and so should (should not) be dedicated to climate adaptation?

4. 'Justice in loss&damage'

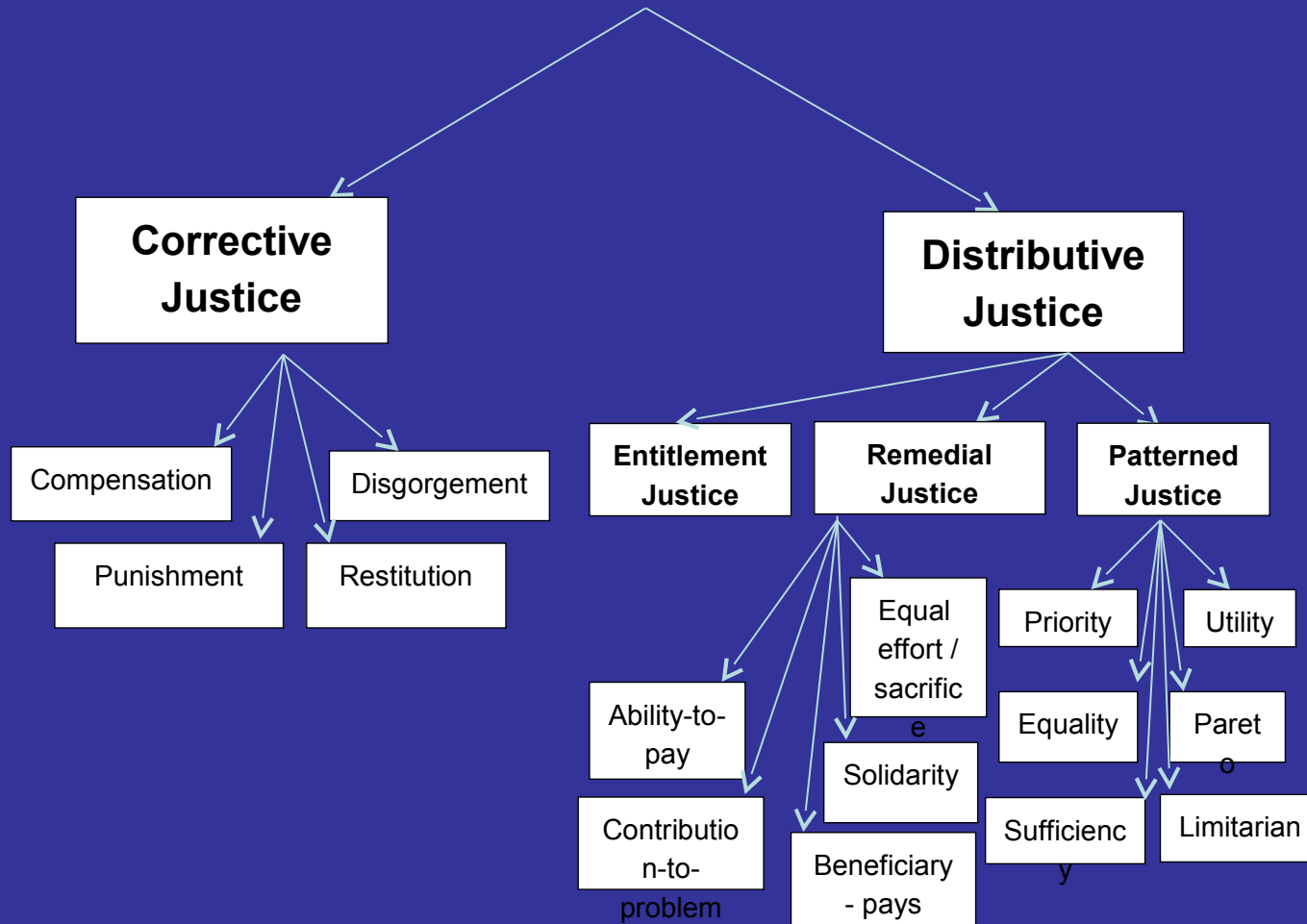
What should be done about setbacks to the vital interests of populations attributable to anthropogenic climate change but which lie beyond the scope of any mitigation or adaptation?



Figure 2: Net present value of global economic cost of climate change 2000-2200



Ethical responses to climate change loss and damage



Just compensation for climatic loss and damage

1. Climatic loss as a problem of compensation ('making victims whole again')
2. 'Means-replacing' v 'ends-displacing' compensation (Goodin 1989, 1995)
3. Just compensation for loss & damage: the superiority of means-replacing compensation?