

An Operational Justice Framework to Inform Climate Debates

23. Österreichischer Klimatag @ Montanuniversität Leoben

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Helping climate researchers and users of researchers navigate the justice space



- Different notions of climate justice
- Differing terminology across fields and actors
- Not always explicitly connected to justice discourse
- Interconnected systems

Climate research and policymaking interact with justice

IPCC 1.5dC Report



*"we must keep the goal of 1.5 degrees Celsius alive.
This requires greater ambition on mitigation and immediate
concrete action to reduce global emissions by 45 per cent
by 2030"*

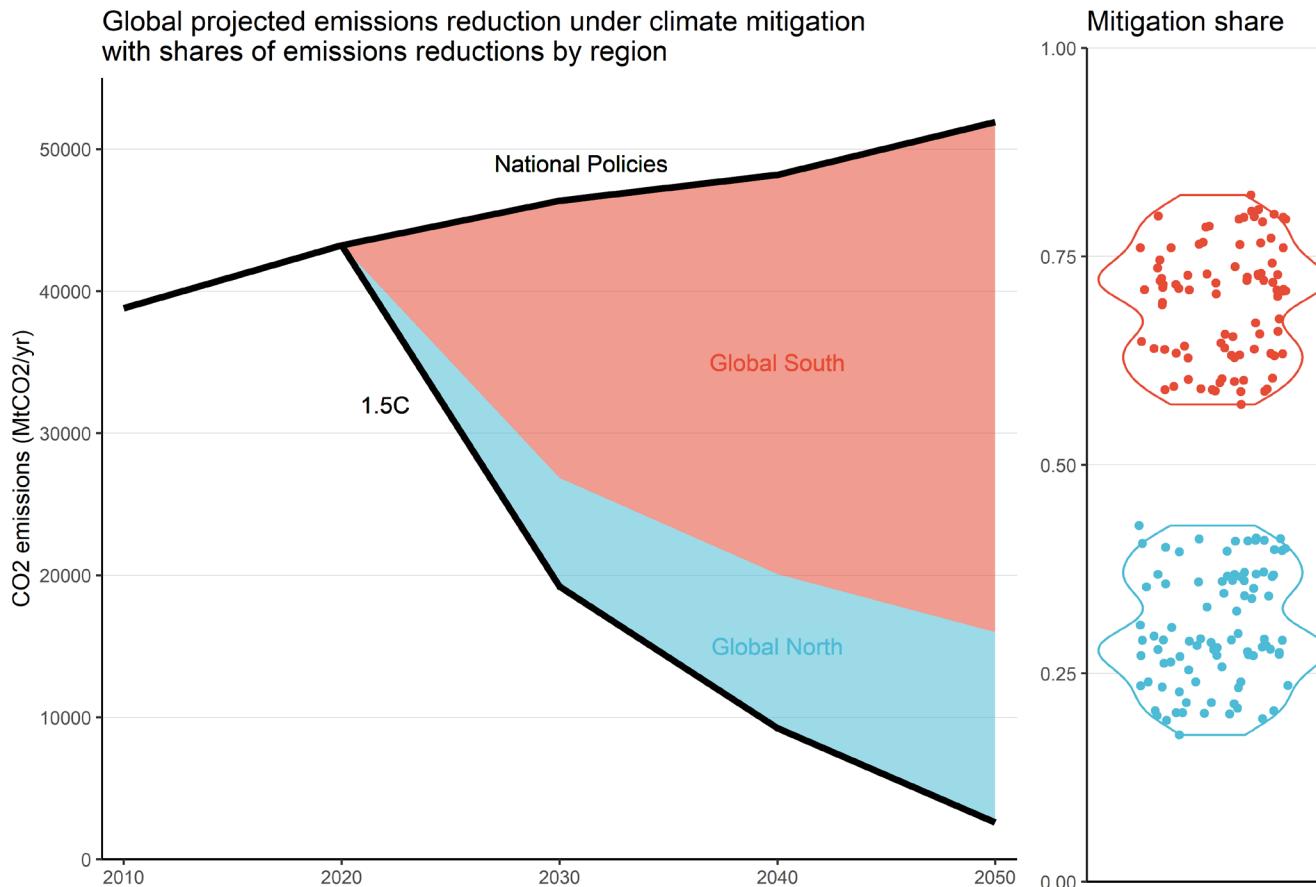
Source: <https://unfccc.int/news/un-secretary-general-cop26-must-keep-15-degrees-celsius-goal-alive>

BUT

"Multiple sources involved in the virtual session told Nature that the negotiations to finalize the report were bogged down as government delegates hashed out perennial arguments over climate mitigation. In particular, negotiators for India raised questions about emissions scenarios in the report, arguing that they assume too much action on the part of developing countries and do not adequately reflect questions of equity and responsibility."

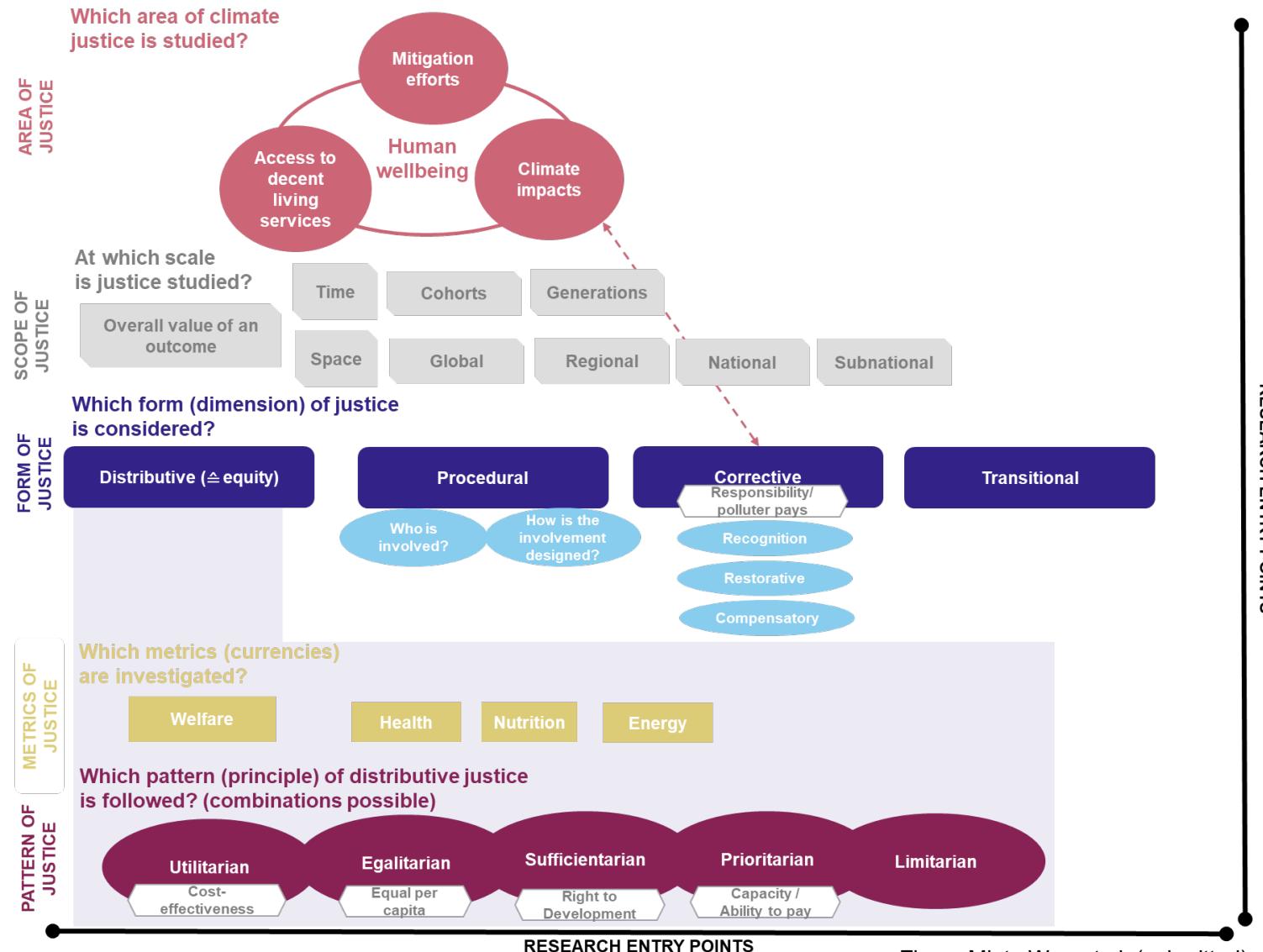
<https://www.nature.com/articles/d41586-022-00951-5>

Mitigation scenarios do not explicitly account for many aspects of climate justice



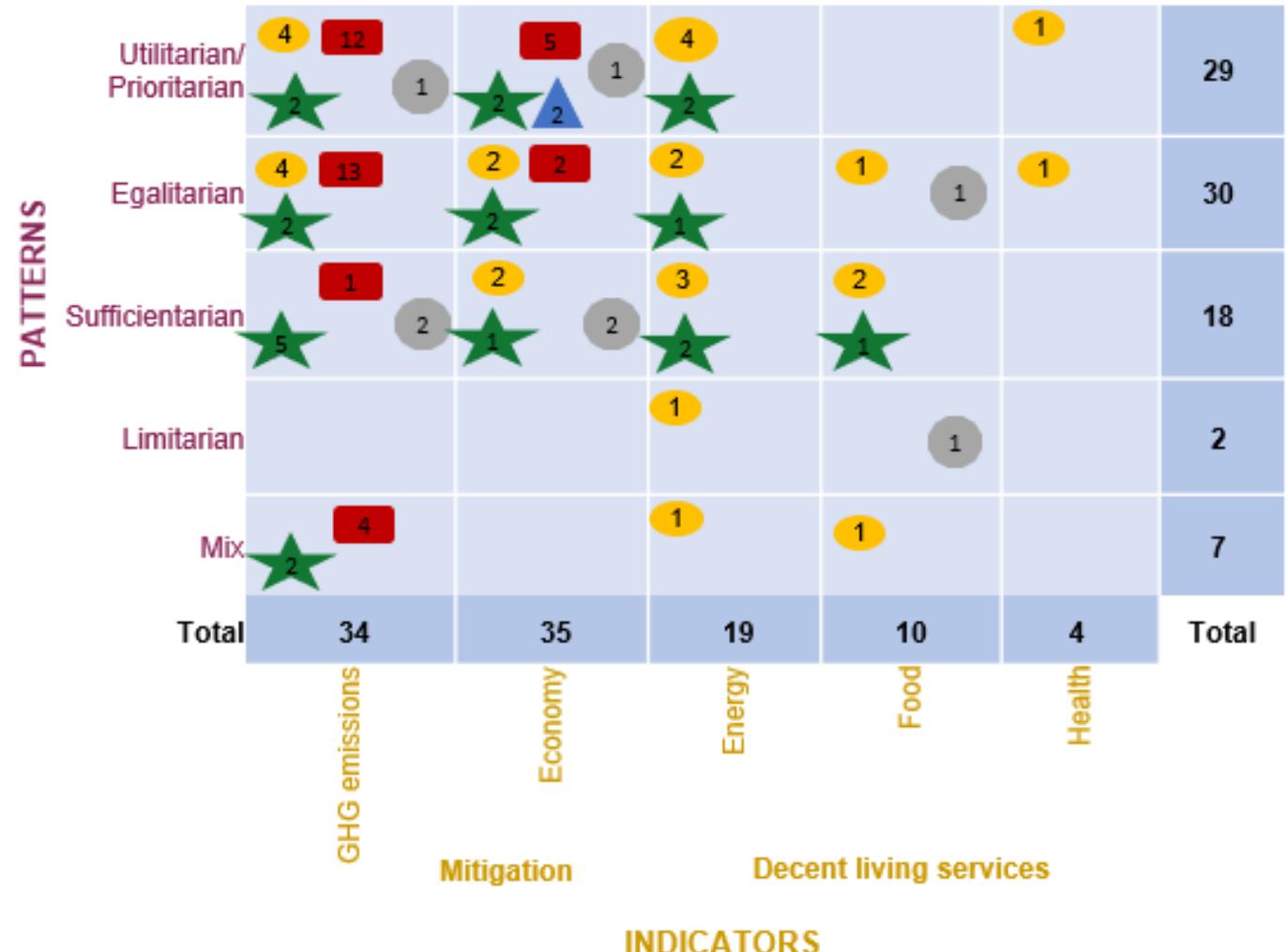
- Many mitigation options are allocated where it is cheapest to mitigate (at global level)
- How just are such scenarios?
- No just transition scenarios to net-zero available
- Need for framework towards safe and just societies – make justice explicit
- Need for operationalization for modelling

Which justice considerations do we have to think of and how can we operationalize them in models?



- Operational framework to guide research
- Broaden perspective on justice
- Harmonize terminology
- Increase consistency and comparability
- Identify research gaps
- Reflect on what scenario research already / can / cannot do

How have mitigation scenario studies tackled justice so far?



Few explicit investigations in terms of justice
Distributive justice dominates
 → Patterns are mixed
 → GDP and GHG dominate
 → Limitarian patterns rarely investigated
 Limited exploration of procedural justice

Avenues for future research to reflect more justice in scenarios

Form of Justice		Options	Exemplary implementation approaches
Distributive	Utilitarian	<ul style="list-style-type: none"> • Expand domain coverage • Investigate different patterns and combinations of patterns 	Expand utility/welfare to include different aspects of human wellbeing (e.g., the application of specific social welfare functions by ¹⁴⁴)
	Prioritarian	<ul style="list-style-type: none"> • For different metrics and indicators • at more granular scopes and • with different regional configurations • include in narratives 	Different groups being served beyond efficiency considerations
	Egalitarian		Per capita and Gini coefficient (reductions in Ginis) of different indicators (beyond GDP, GHG)
	Sufficientarian		Minimum levels of different indicators
	Limitarian		Caps/upper limits of different indicators
Procedural	Model design	<ul style="list-style-type: none"> • Transparency about objectives and underlying assumptions 	Share underlying assumption and their potentially different impacts with regards to justice questions
	Scenario development	<ul style="list-style-type: none"> • More and broader stakeholder involvement 	Discuss regional/national choice and preference for metrics and patterns with stakeholders
	Scenario selection	<ul style="list-style-type: none"> • Greater diversity in research teams 	Share of population living in democratic regimes
Corrective	<i>Recognition</i>	<ul style="list-style-type: none"> • Acknowledgement of issue 	Include in scenario narrative
	<i>Restorative</i>	<ul style="list-style-type: none"> • combined with distributive justice (modify patterns considering historical contributions or inclusion of compensatory payments e.g. ¹⁴¹) 	
	<i>Compensatory</i>	<ul style="list-style-type: none"> • Inclusion of compensatory payments 	Adjust patterns and metrics reflecting historical responsibility
Transitional		<ul style="list-style-type: none"> • Different policy sequencing options for different metrics & patterns 	Introducing initial rebate cheques before fully implementing carbon pricing (e.g., ¹⁴⁵)

What is next?

- 1) Evaluate scenarios, narratives and studies (in progress)
- 2) Develop guidance for modelers (in progress – see image)
- 3) Continue testing with stakeholders
- 4) Justice Model Intercomparison project (JustMIP)
- 5) Develop new scenarios based on stakeholder insights

Which type of research design is used to answer the research question?



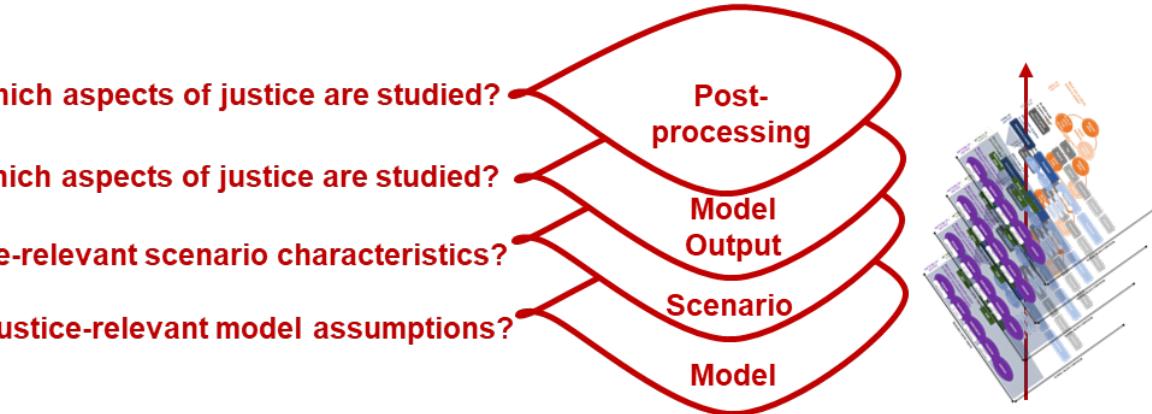
At which level of analysis is (any aspect of) justice (explicitly or implicitly) invoked or investigated?

Which aspects of justice are studied?

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Justice-relevant scenario characteristics?

Justice-relevant model assumptions?



Transparent reporting of justice-relevant aspects

We look forward to your feedback.

Questions?

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