MCC

Mercator Research Institute on
Global Commons and Climate Change

Equity impacts of carbon pricing in LMICs

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The political economy of green fiscal policies in the context of Green Recovery

September 15, 2021

Managing equity concerns key for making GFPs work

- Political resistance to be expected:
  - Broad-based resistance, e.g. to rising energy prices
  - Immediate price increases can lead to large protests that have the power to stop the reform; short term distributional incident crucial for the acceptance of reform
- Interests groups that lose from policy reforms can be expected to lobby (or protest) against it
  - Energy users
  - Workers
  - Fossil fuel owners
  - Industry
  - Specific regions
  - …

Understanding and managing distributional effects is key for success!

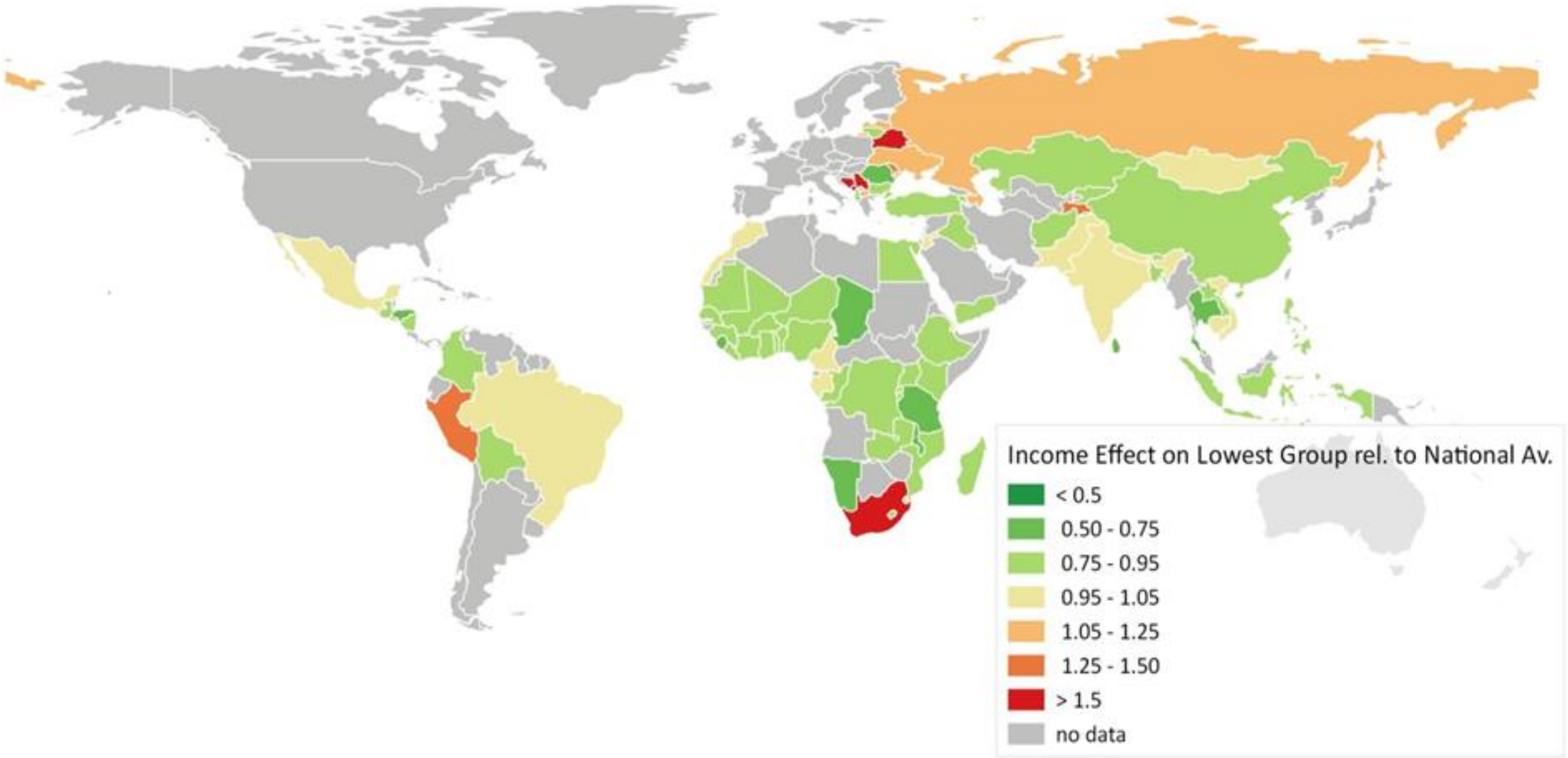
Indonesia, 2012

Ecuador, 2019

Iran, 2019

Nigeria, 2020 (latest)

Carbon prices would likely be progressive

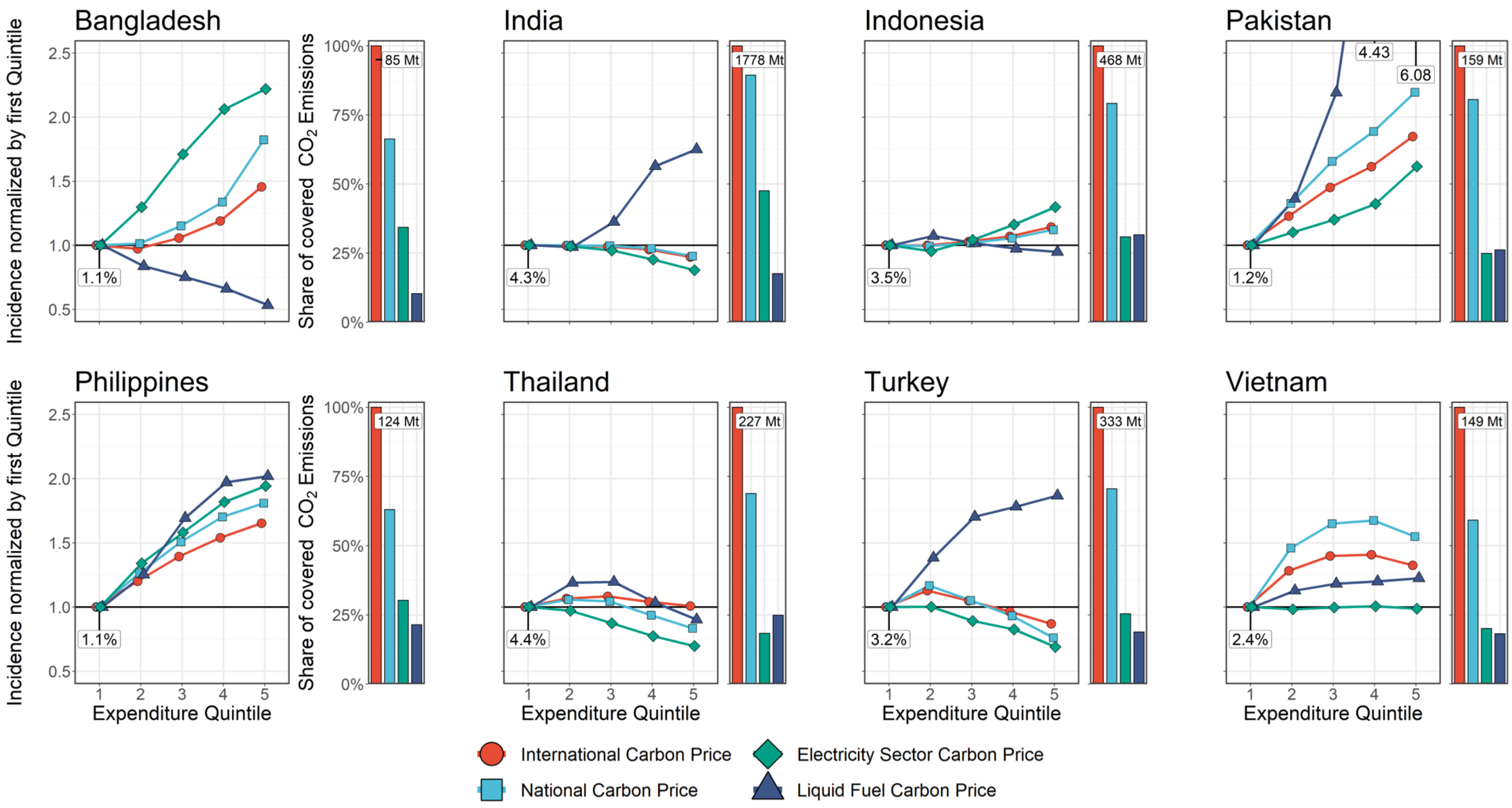


Dorband et al. (2019, World Development)

Empirical analysis based on World Bank Global Consumption Database, covering 87 countries

Key result: Carbon pricing more progressive in poorer countries
Key mechanism: Differences in energy expenditures drive results

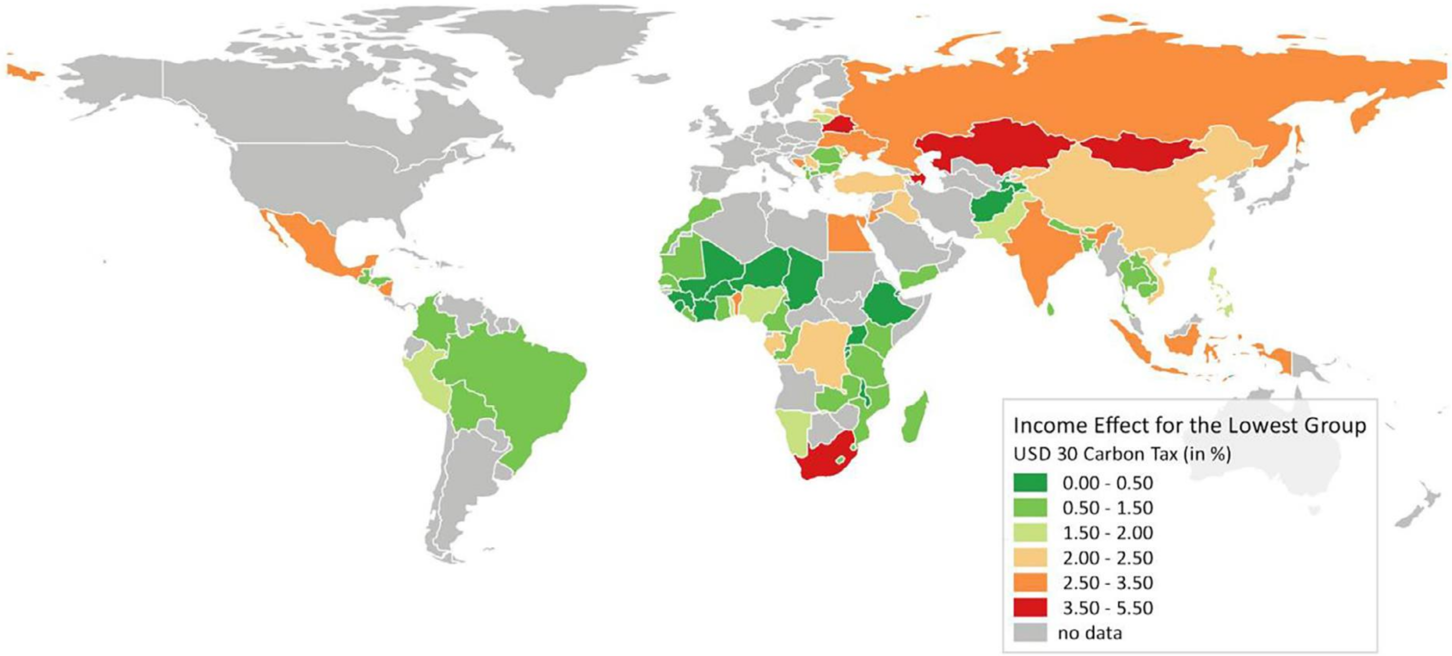
Design matters



Steckel et al. (in press, Nature Sustainability)

All effects refer to carbon price of USD 40 / t CO_2

Progressive distributional effects might still hurt the poor

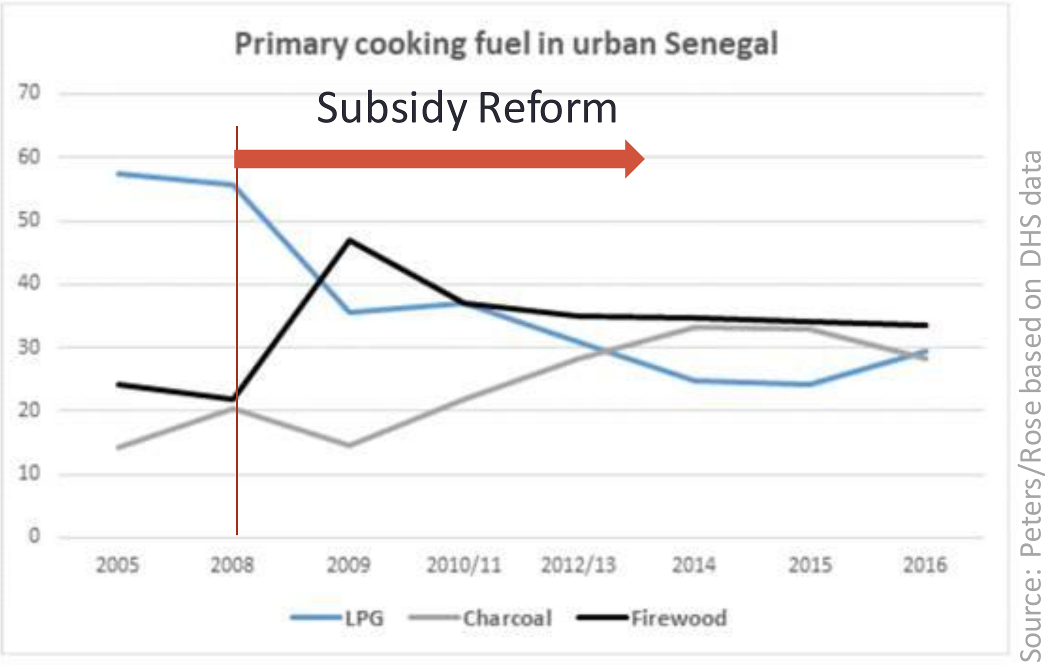


Dorband et al. (2019, World Development)

- Even progressive distributional implications can mean a substantial burden to incomes of poor households
- What does it mean for development indicators? Food? Energy use?
- How to use revenue recycling schemes to protect the most vulnerable groups?

Considering LMIC particularities important for effectiveness of reforms

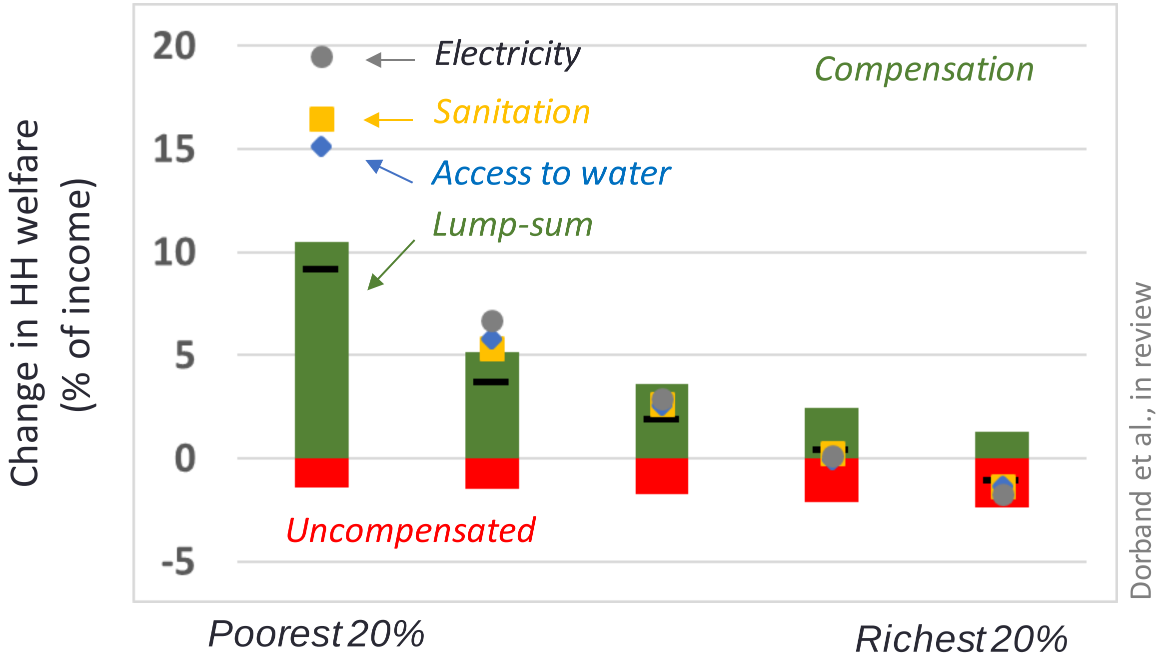
- High prevalence of charcoal and firewood for cooking
- Fossil fuel price hikes may raise biomass collection



- Negative health impacts via indoor air pollution
- Adversely impact female labour supply & women‘s time use
- Potentially drives forest degradation

Nigeria: Distributional effects of infrastructure investments

- 60% of population lack access to basic infrastructure
- Spending revenues for transfers or infrastructure investments?
- Double progressivity when using revenues to finance infrastructure investment

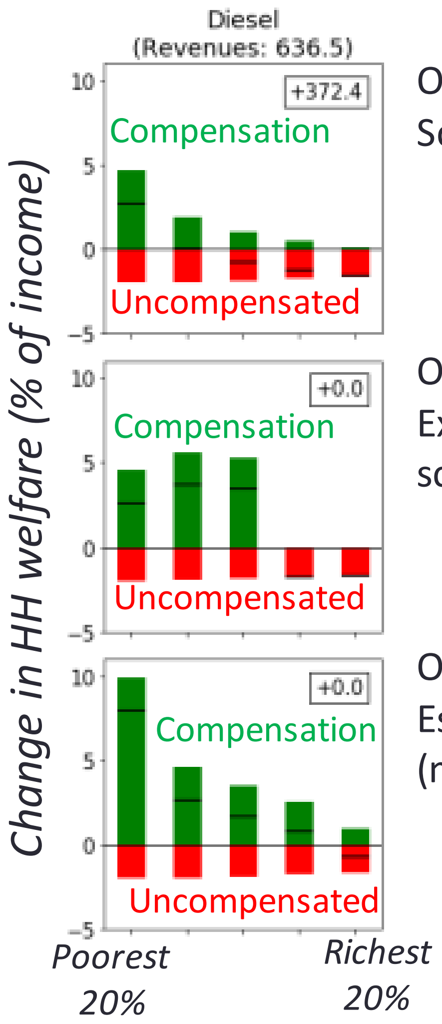


Using existing social security schemes to keep transaction costs low

- The case of Ecuador: Fossil fuel subsidy reform

- Using existing schemes vs. creating new instruments compensation

- Existing social transfer schemes can be used to make distributional outcome progressive



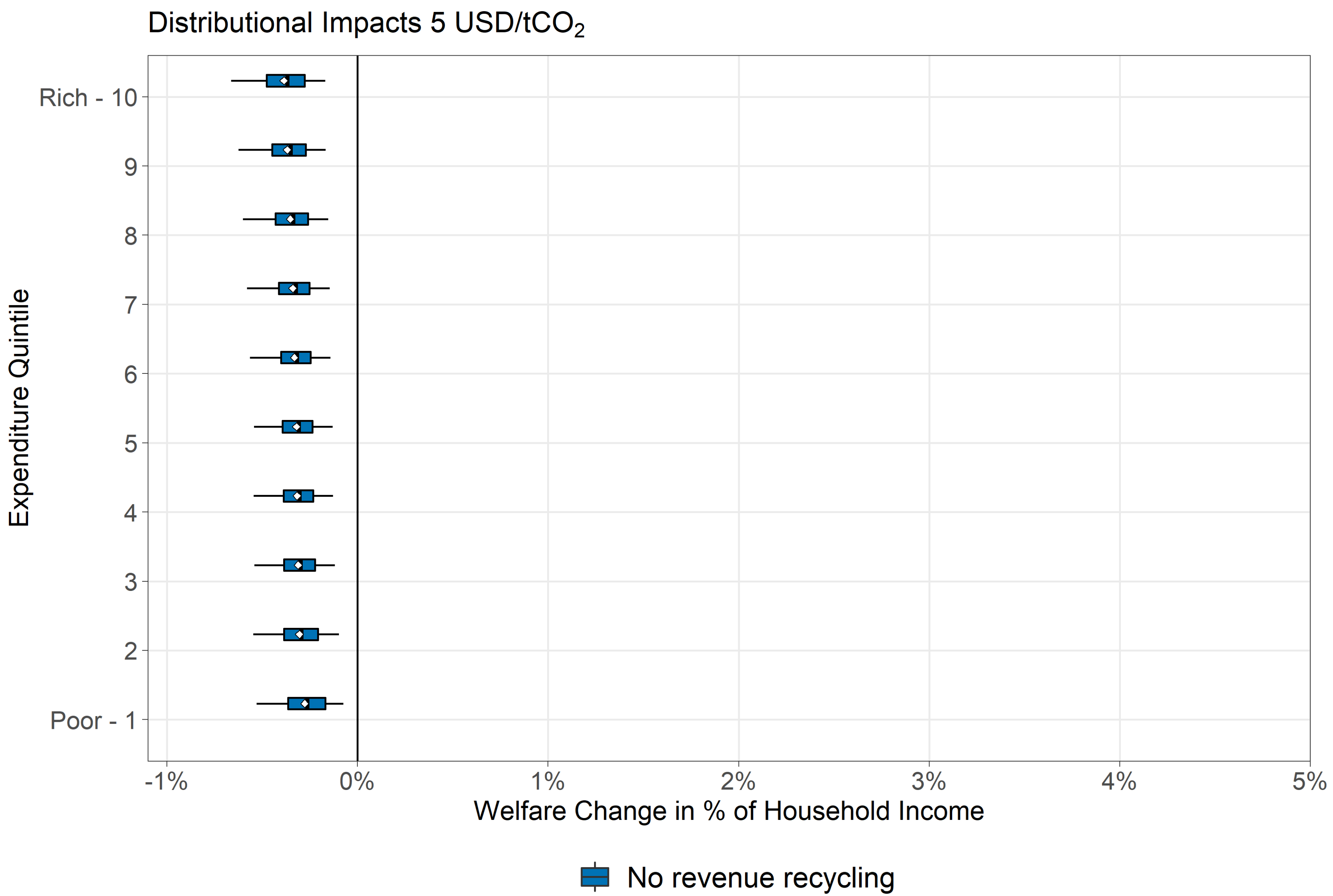
Option 1:
Scaling up existing scheme

Option 2:
Expanding eligibility of existing scheme

Option 3:
Establishing a new channel (minimum pension)

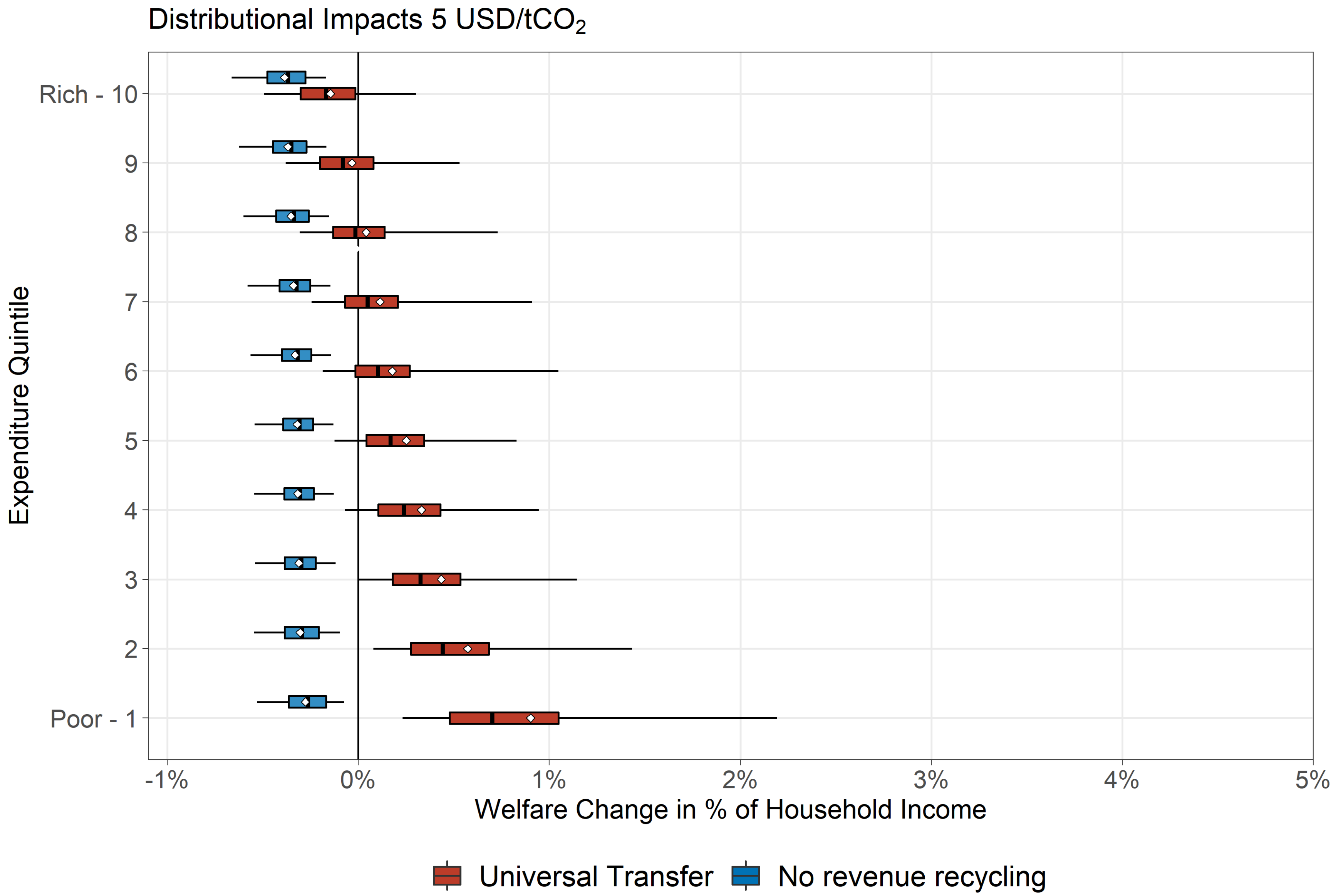
Schaffitzel et al. (2020, Energy Policy)

Consider full distribution and revenue recycling: Carbon Tax Indonesia



Source: MCC, unpublished

Consider full distribution and revenue recycling: Carbon Tax Indonesia



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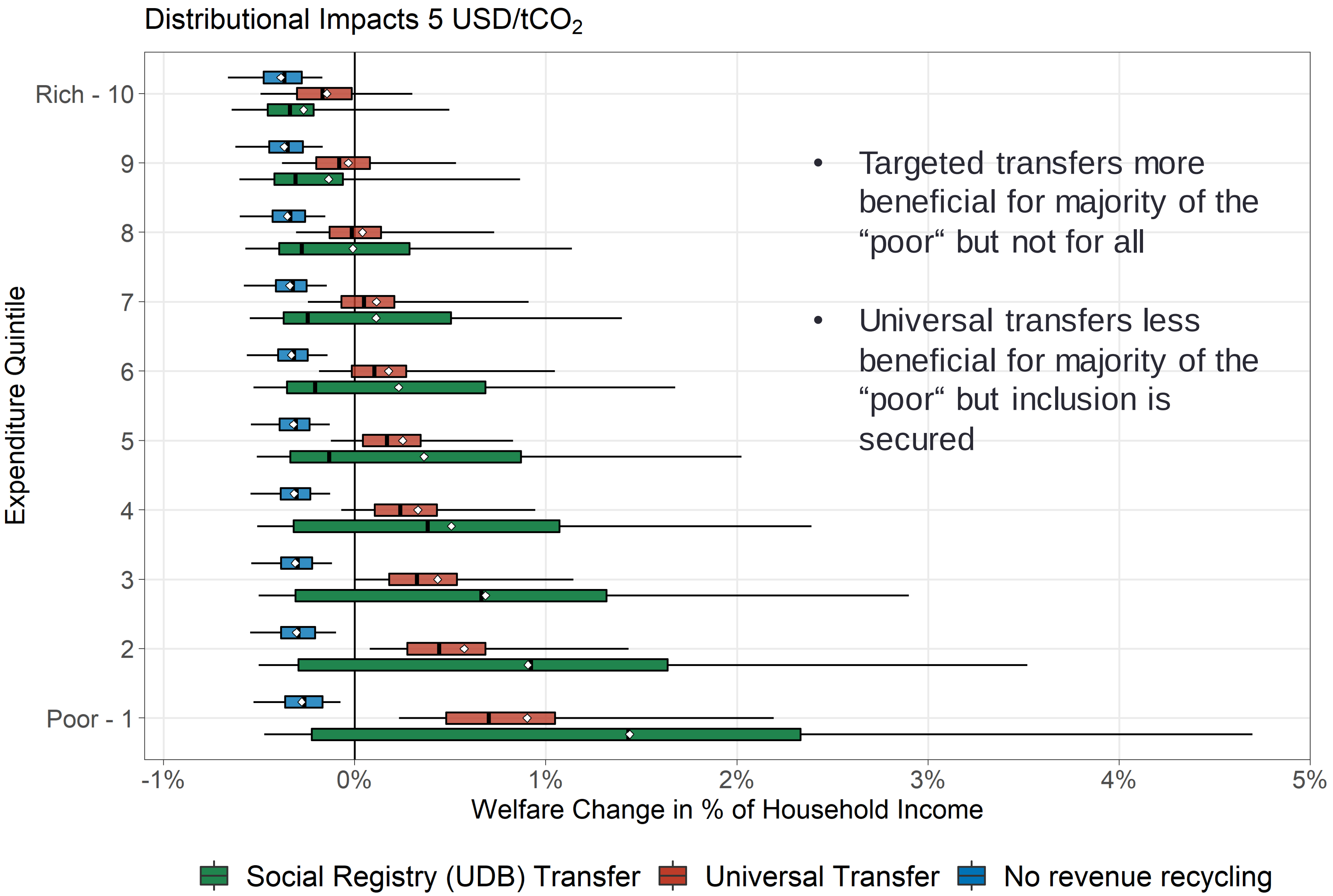
Consider full distribution and revenue recycling: Carbon Tax Indonesia



- Targeted transfers more beneficial for majority of the “poor“ but not for all
- Universal transfers less beneficial for majority of the “poor“ but inclusion is secured

Source: MCC, unpublished

Key points

- Distributional effects in LMICs are most likely progressive
- Progressivity hides huge differences within income groups
- How to recycle revenues is key
- Making green fiscal policies socially and politically acceptable requires to embed those in broader social policy considerations

Thank you

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