



DOES GROWTH REDUCE POVERTY? THE MEDIATING ROLE OF CARBON EMISSIONS AND INCOME INEQUALITY

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THE POOR

“the least contributor, but the most vulnerable to climate change”





The top 10% of earners
accounted for

over half

of cumulative global emissions
from 1990-2015 (Oxfam, 2020).



The World Bank estimates that climate change will push more than

32 million

people into extreme poverty by 2030
(Jafino et al., 2020).



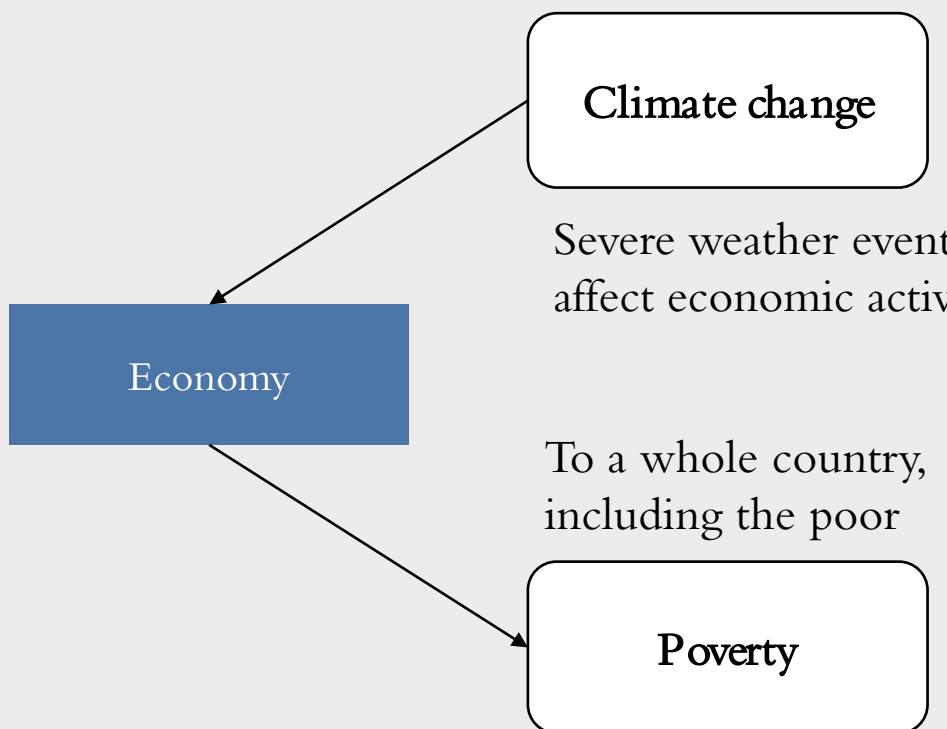


POVERTY AND CLIMATE CHANGE

It is an injustice that the poor – the least contributor to this phenomenon – is the most vulnerable of climate change consequences (Hallegatte et al., 2018; Oxfam, 2020).

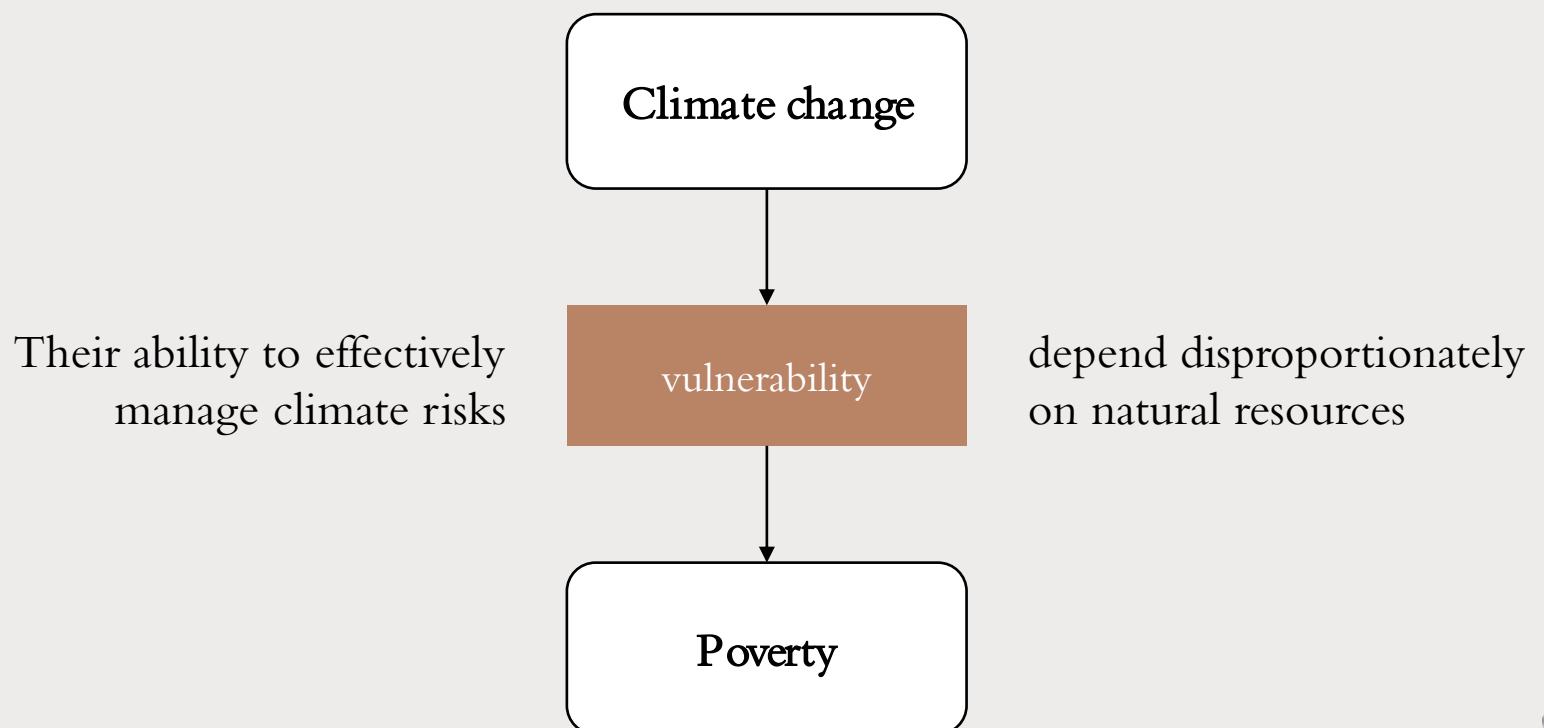
POVERTY AND CLIMATE CHANGE

The impact of climate change on poverty through three mechanisms



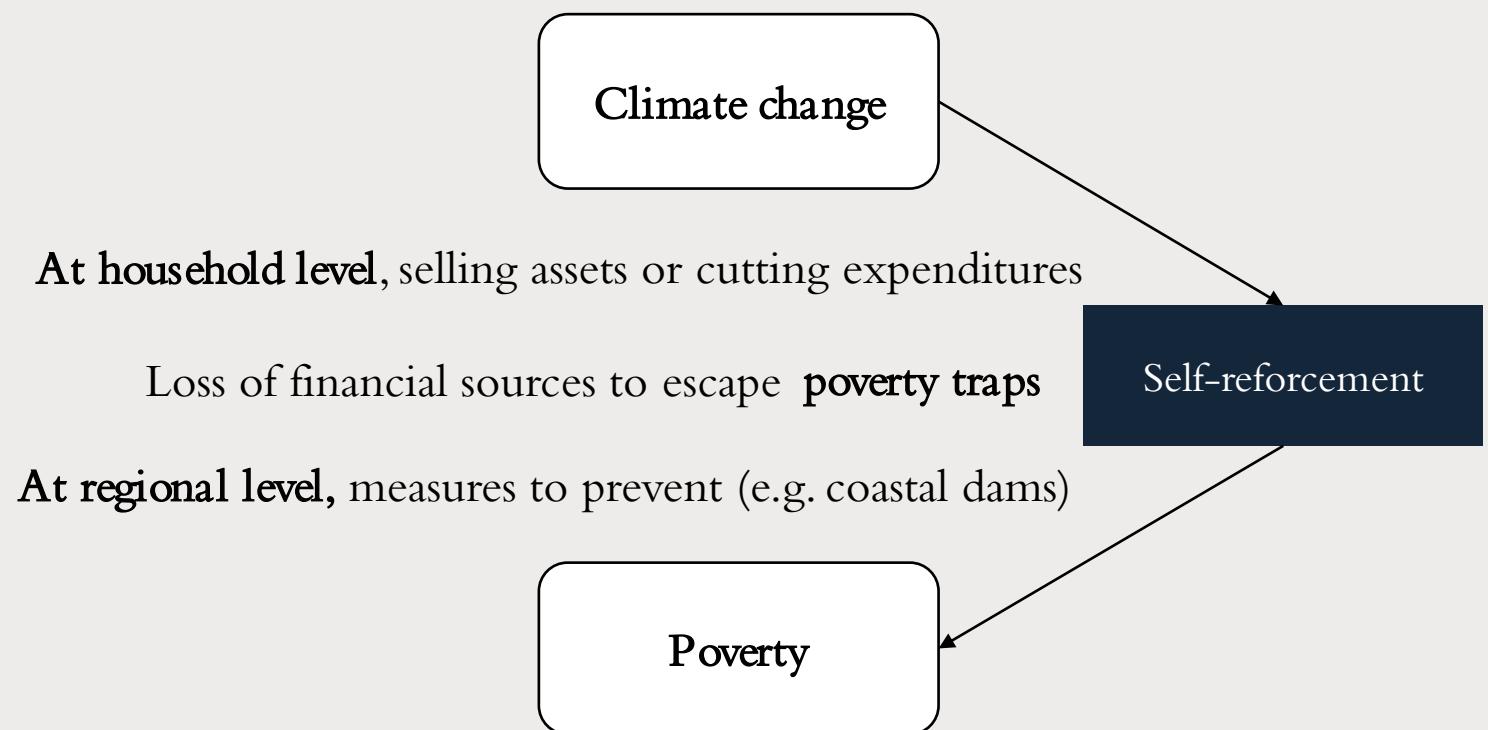
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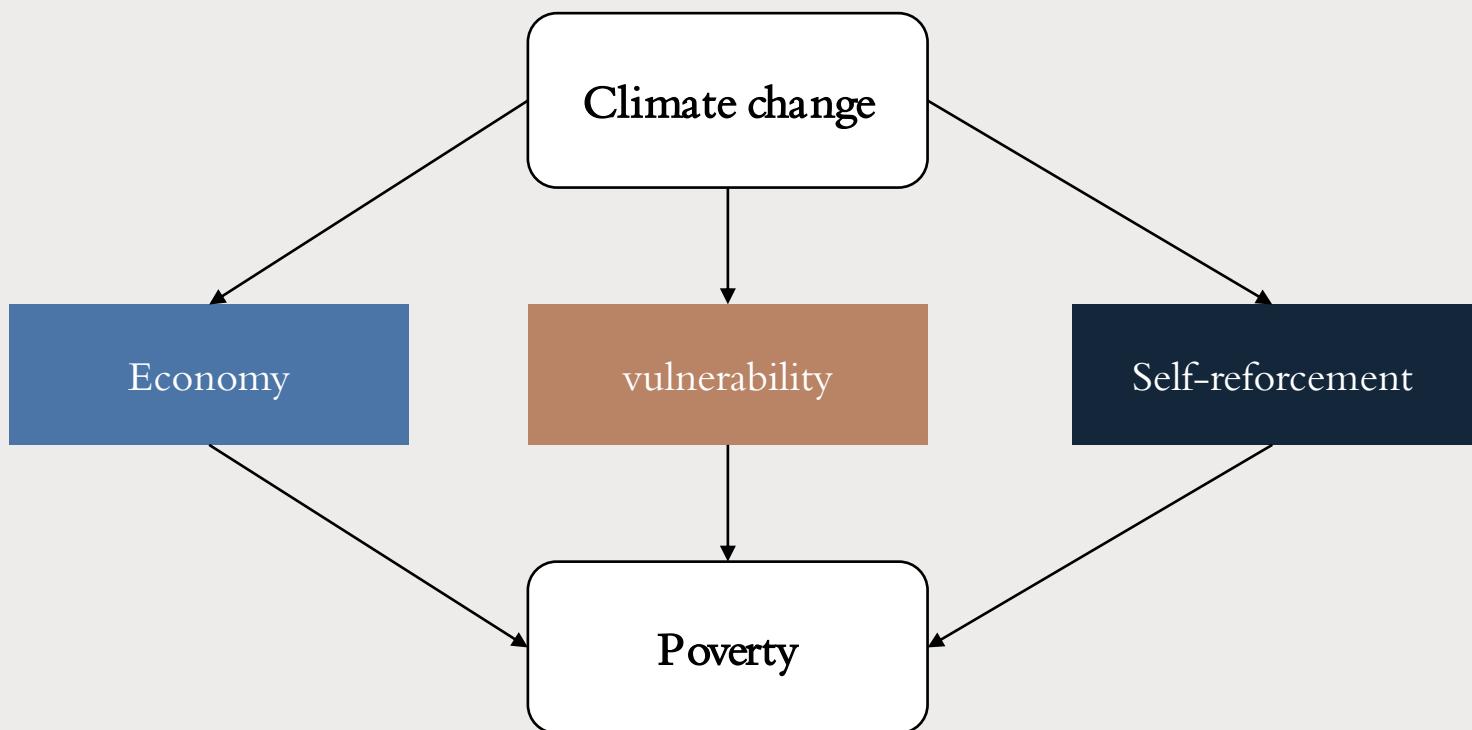
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Growth has long been seen as a "panacea" for poverty alleviation, especially in developing countries (WorldBank, 2006).

WHERE DOES ECONOMIC GROWTH FIT?





WHERE DOES ECONOMIC GROWTH FIT?

How climate change may offset the positive effects of growth on poverty

GDP per capita (*Bergstrom, 2020*)
accounted for **90%** of poverty reduction

Growth

The alleviating effect

Climate change

3 mechanisms



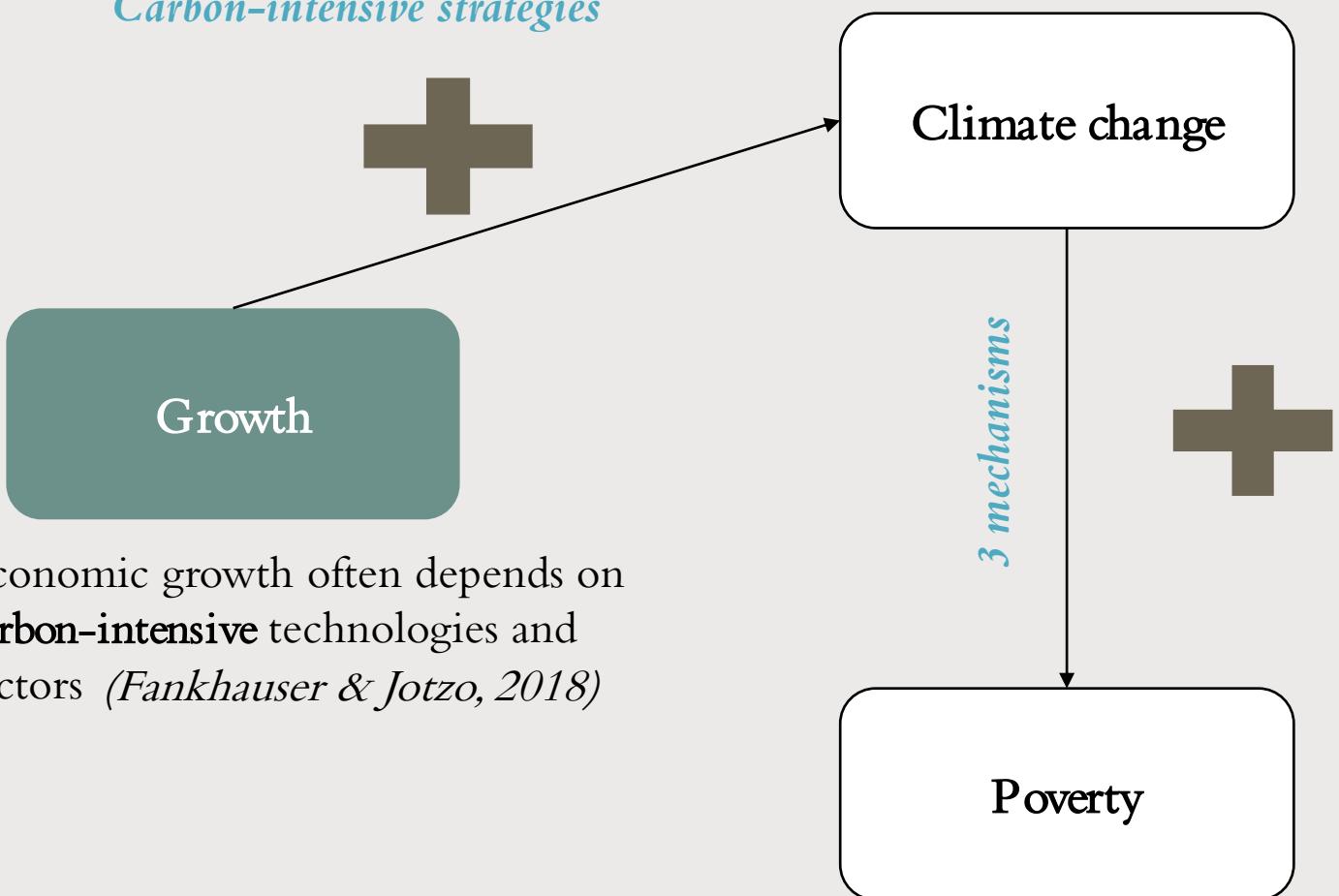
Poverty



WHERE DOES ECONOMIC GROWTH FIT?

How climate change may offset the positive effects of growth on poverty

Carbon-intensive strategies

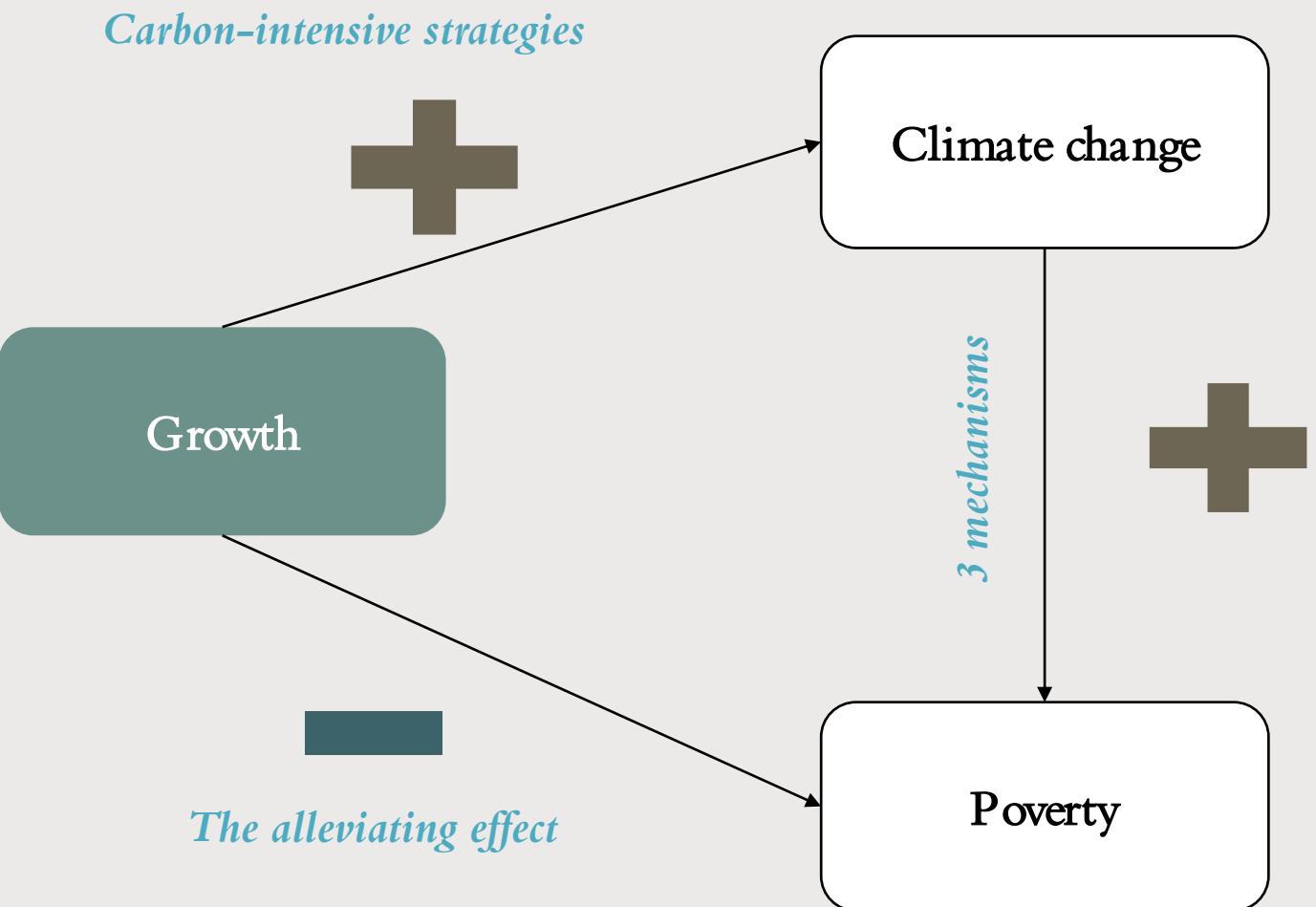


Economic growth often depends on
carbon-intensive technologies and
sectors (*Fankhauser & Jotzo, 2018*)



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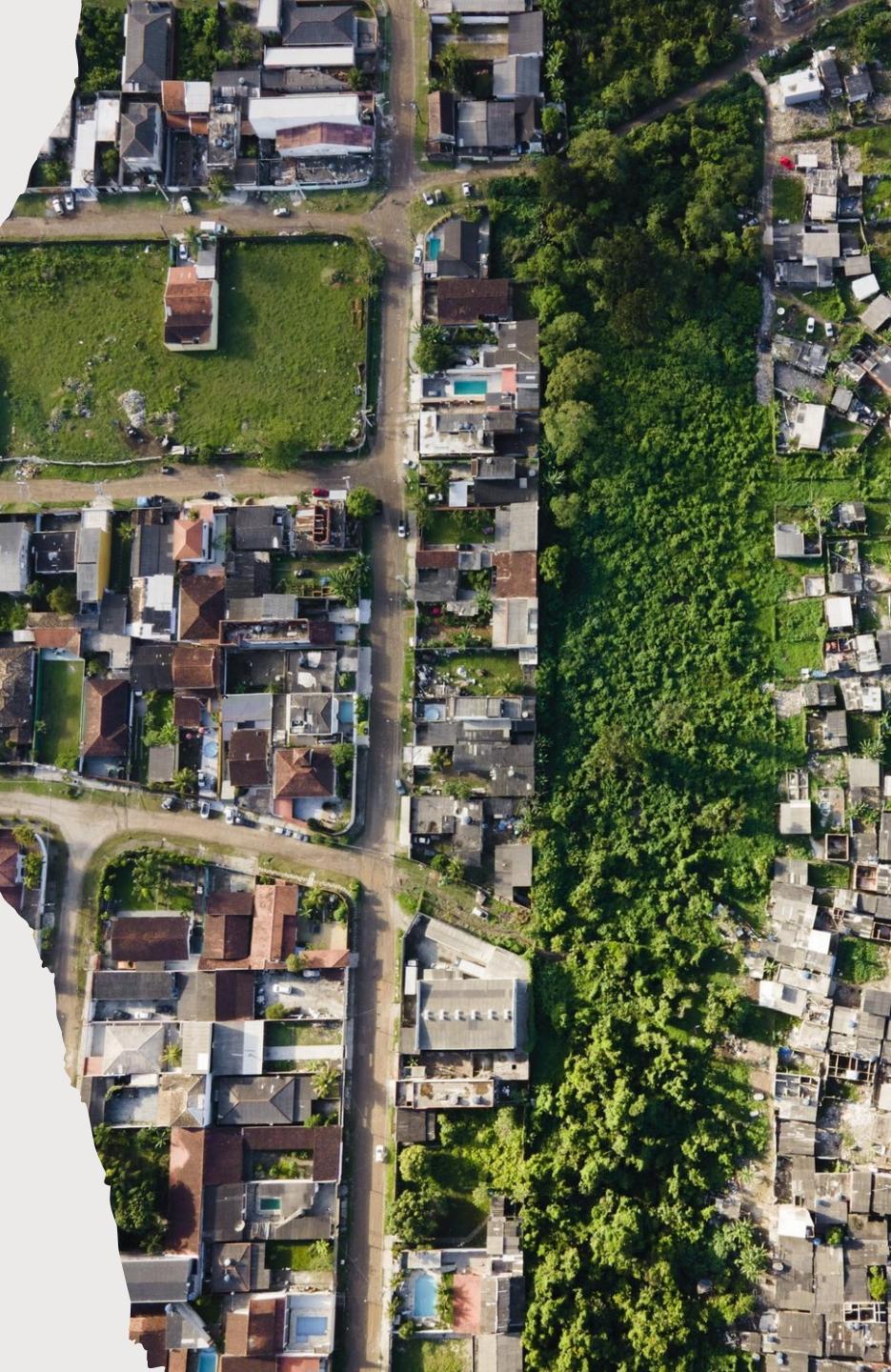
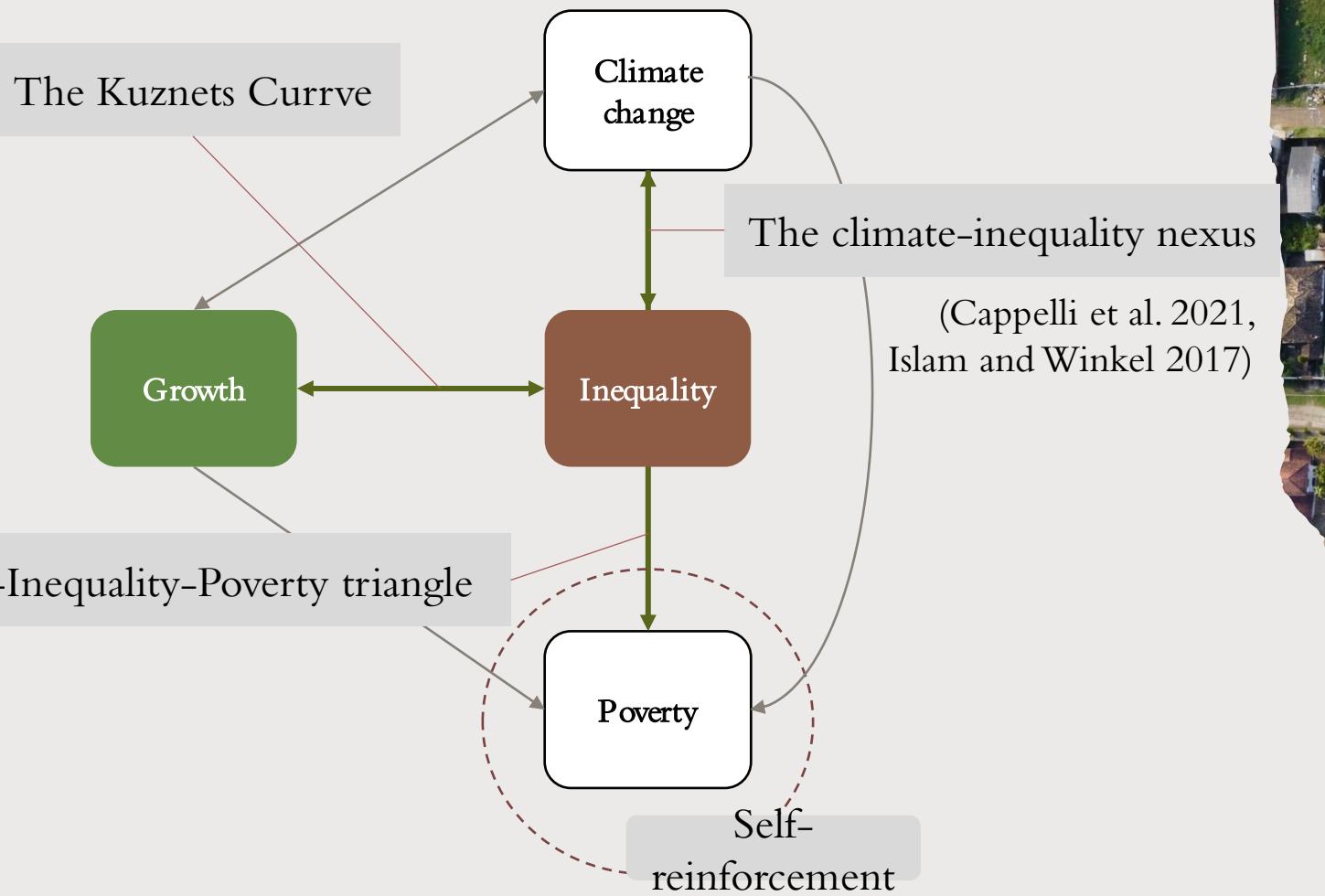


THE CYCLICAL TRAPS OF POVERTY, ECONOMIC GROWTH, AND INEQUALITY

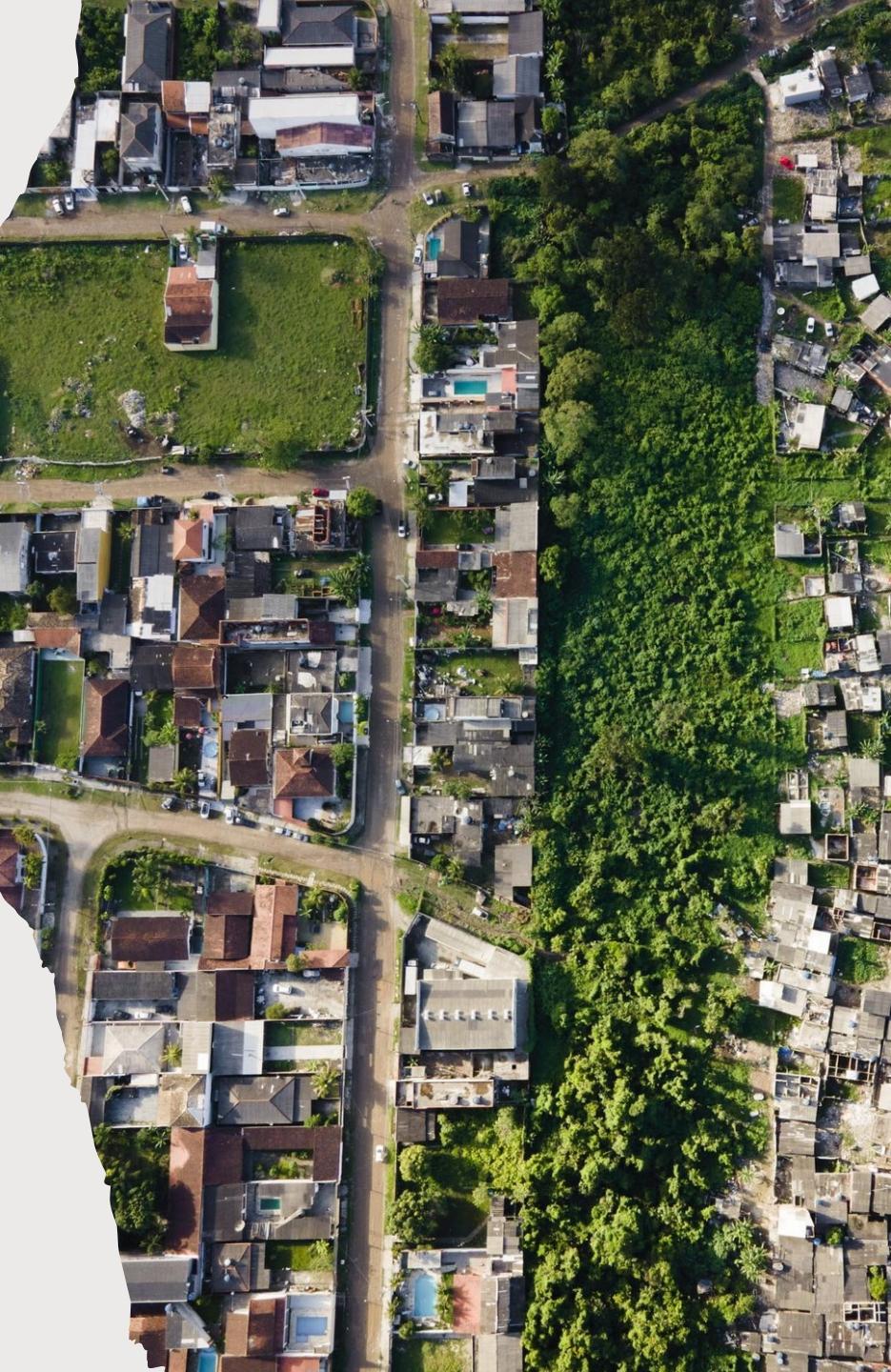
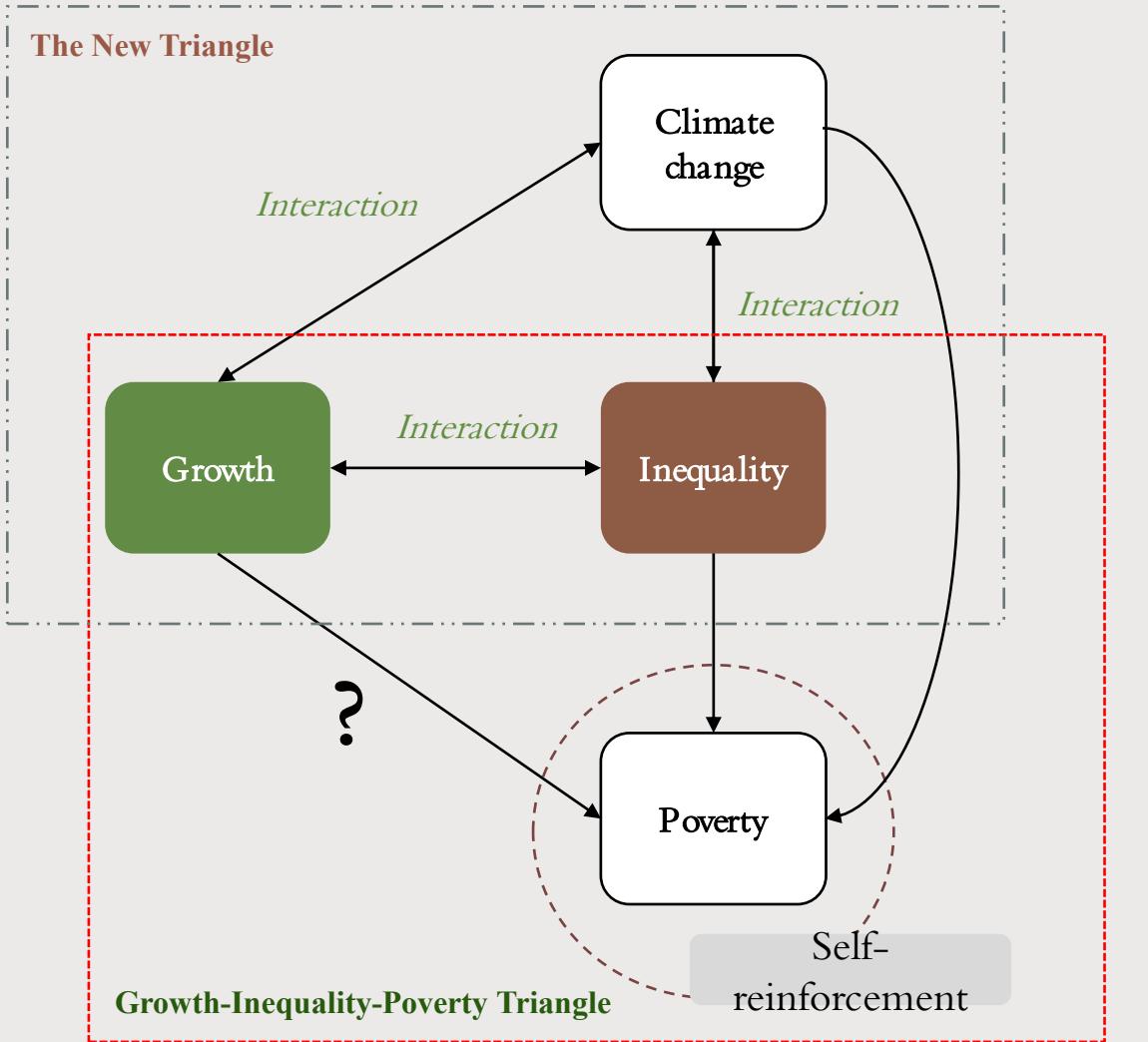
From a socioeconomic perspective, inequality as exacerbated by climate change can be considered on two levels: international (between-country) and social (within-country) (Islam & Winkel, 2017)



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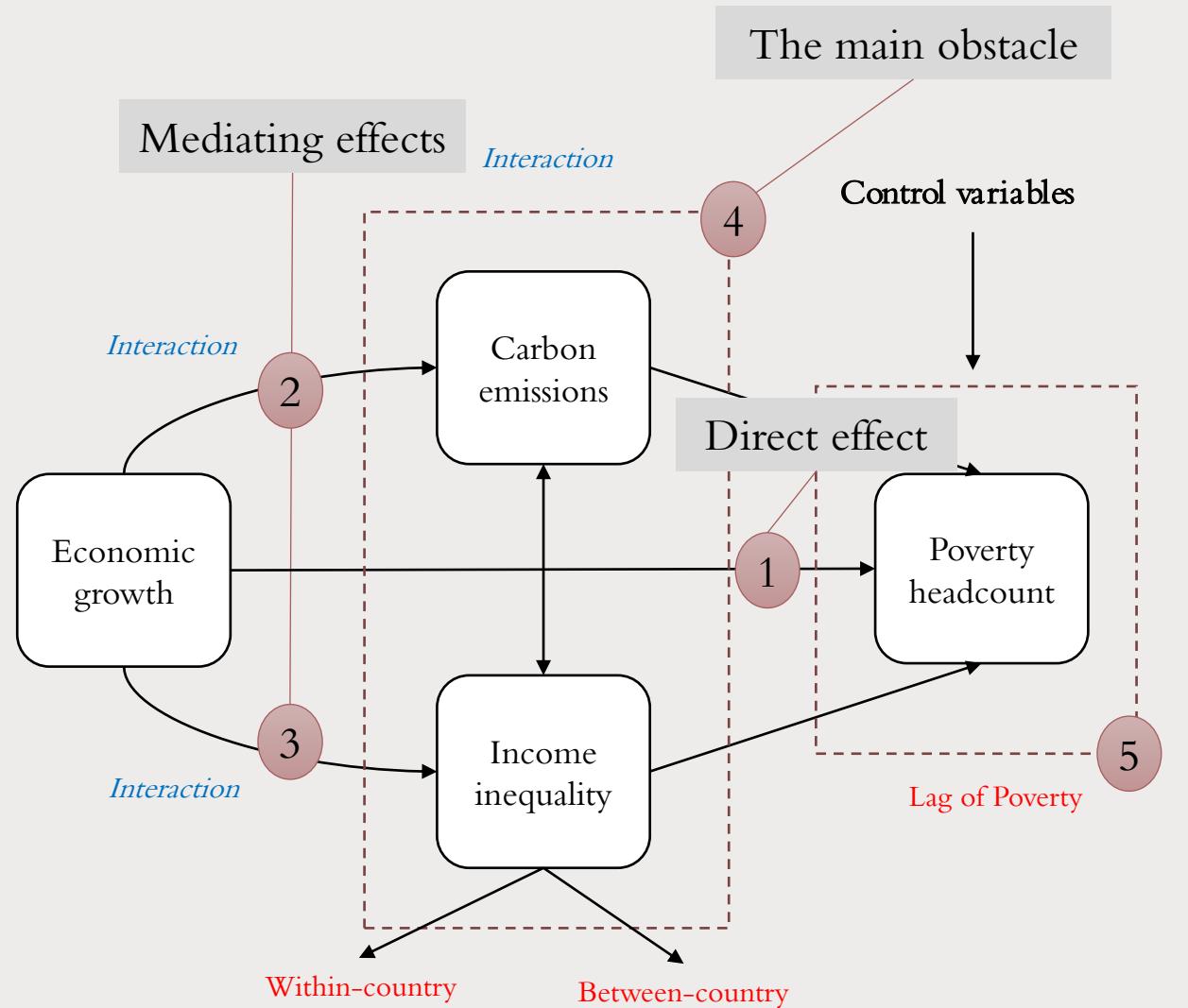


Khanh & Eoin (2022) uncover the new triangle between economic growth, income inequality and carbon emissions which, as we later demonstrate, partially hinders the beneficial effect of growth on poverty reduction.

DOES GROWTH REDUCE POVERTY?

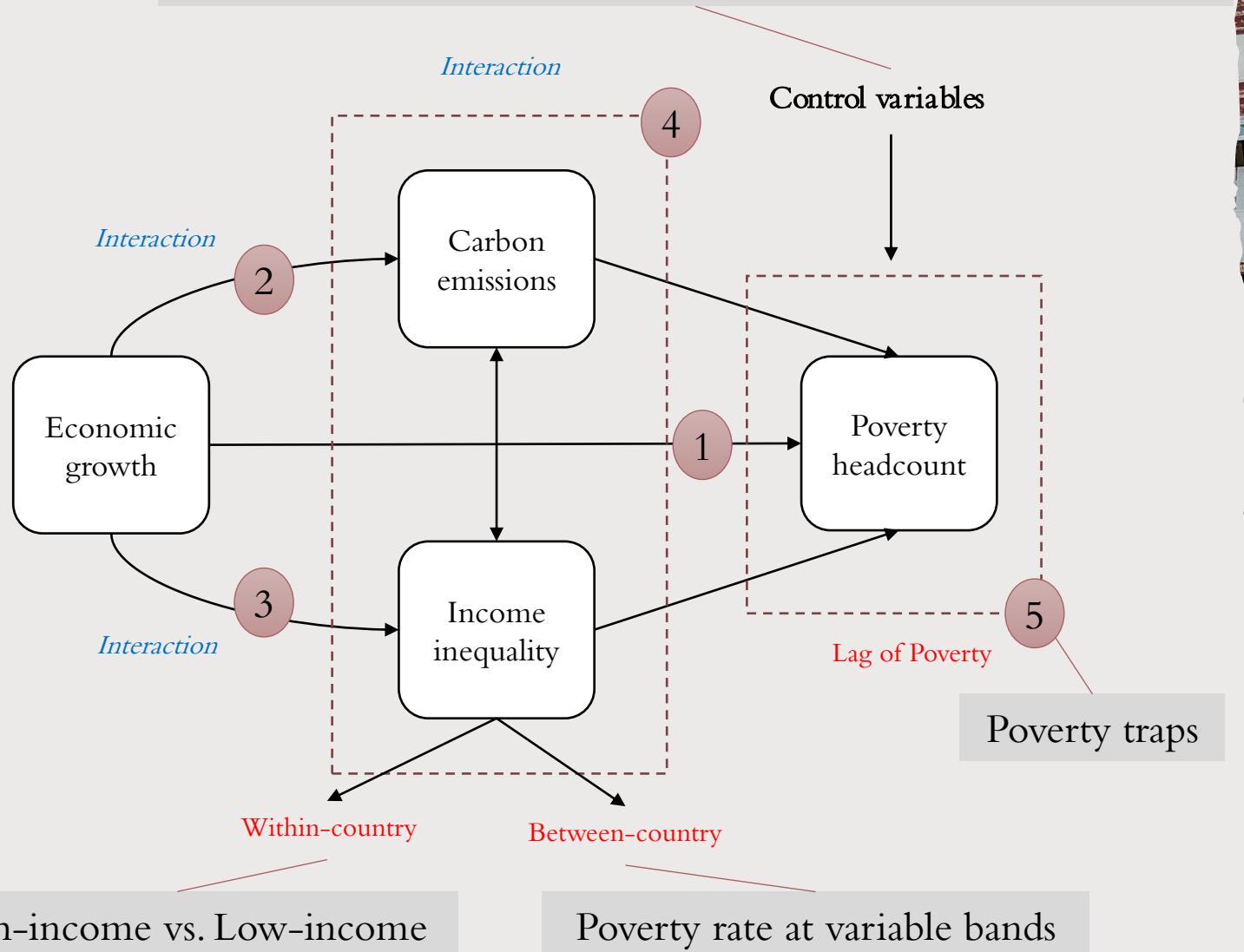


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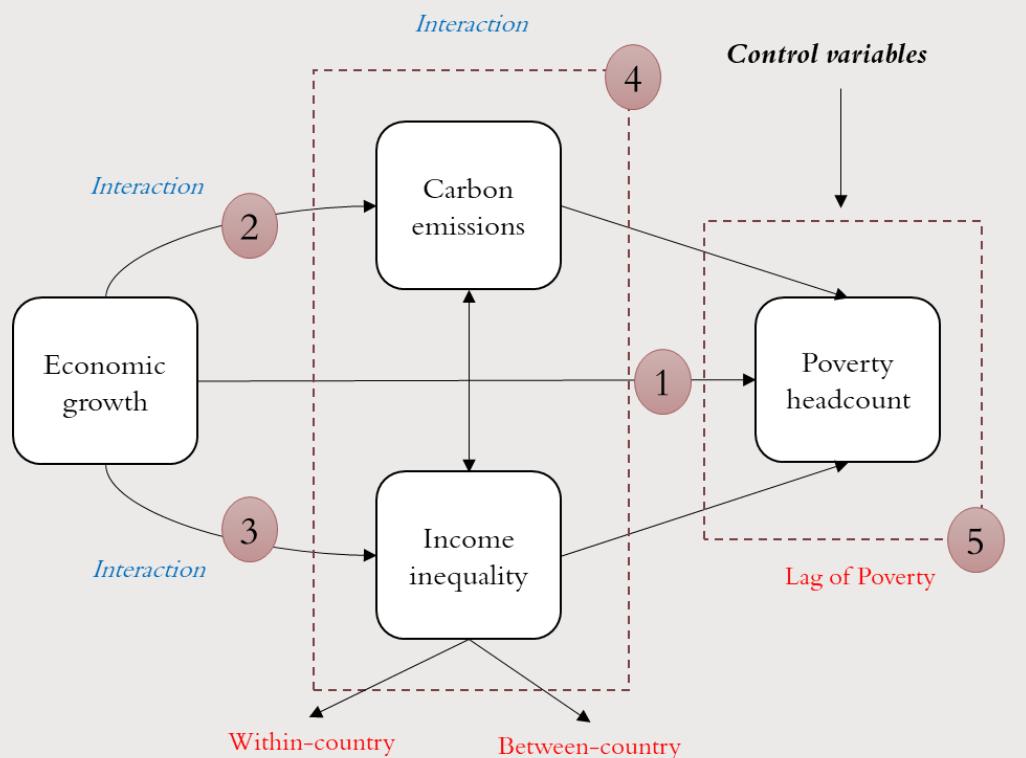
(population, renewable energy consumption, and urbanization)



DOES GROWTH REDUCE POVERTY?

The main method: **Generalized Method of Moments (GMM)**

- Endogeneity: the lagged poverty, the feedback effect of poverty to growth
- Heteroscedasticity: using robust standard errors
- Multicollinearity: dropping variables if violate this
- Mediating effects: using interaction terms (product terms)
- Serial correlation: the Arellano–Bond test at order two



RESEARCH FINDINGS

Our findings underscore the potentially damaging impact that would arise from global ‘one size fits all’ policies that do not account for the specific characteristics of low-income countries, and how variation in poverty is related to emissions, growth, and inequality.



1

“Any emissions-intensive development policies aimed at addressing poverty alleviation in low-income countries must factor the mediating and negative role of inequality in the poverty-emissions pathway”(Khanh & Eoin, 2022).





“The risk of inequality-driven poverty combined with a higher risk of poverty trap reinforcement, means that general mitigation policies aimed at ‘degrowth in general’ are unlikely to result in just outcomes for low-income countries” (Khanh & Eoin, 2022).

3

“In high-income countries, inequality is the main obstacle to poverty reduction, while in developing countries it is emissions in association with income inequality” (Khanh & Eoin, 2022).

