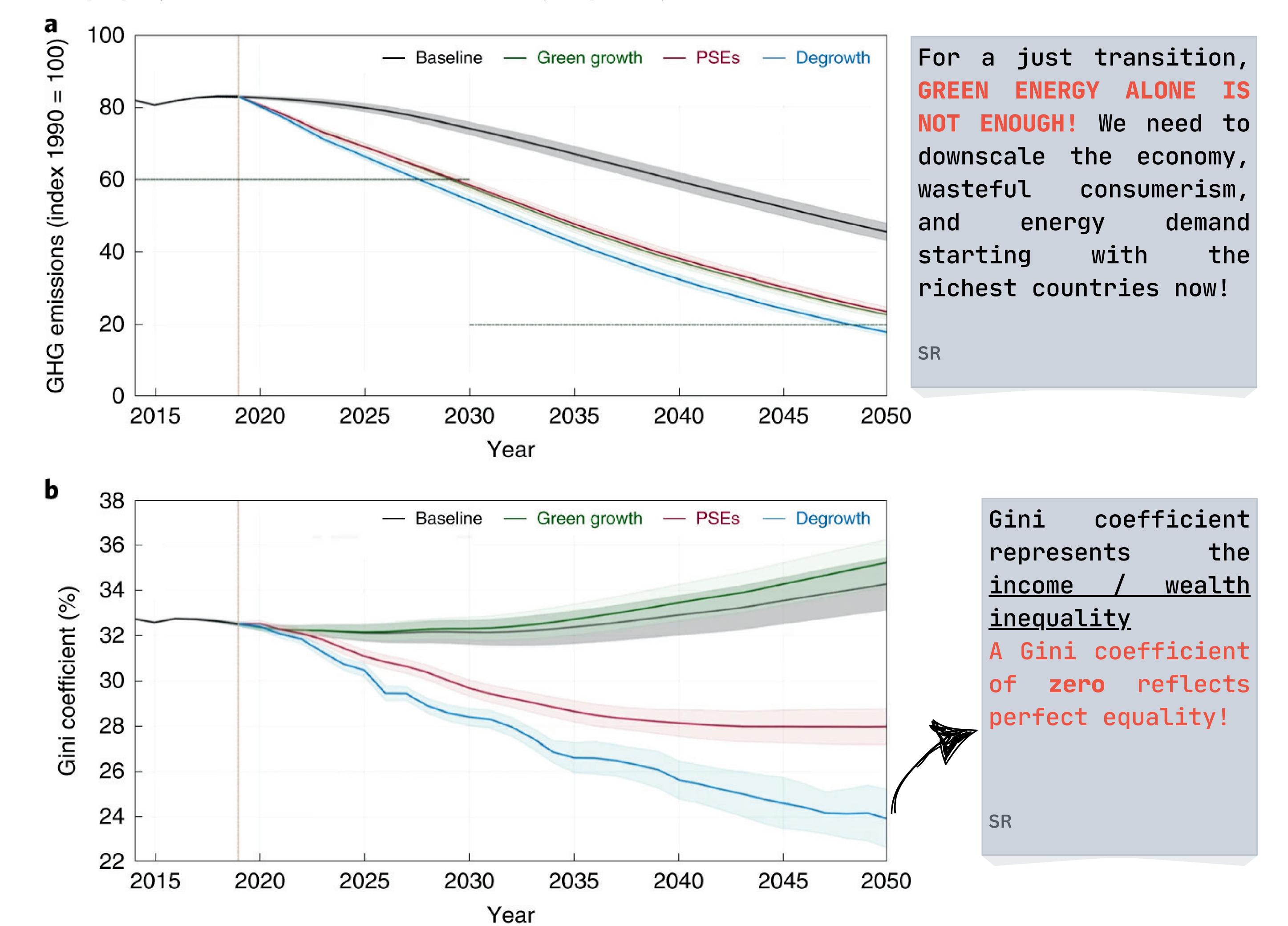
## THE SCIENCE IS CLEAR

## Feasible alternatives to green growth

D'Alessandro, Simone, et al. "Feasible alternatives to green growth." Nature Sustainability 3.4 (2020): 329-335.

Climate change and increasing income inequality have emerged as twin threats to contemporary standards of living, peace and democracy. These two problems are usually tackled separately in the policy agenda. A new breed of radical proposals have been advanced to manage a fair low-carbon transition. In this spirit, we develop a dynamic macrosimulation model to investigate the long-term effects of three scenarios: green growth, policies for social equity (PSE), and degrowth. The green growth scenario, based on technological progress and environmental policies, achieves a significant reduction in greenhouse gas emissions at the cost of increasing income inequality and unemployment. The policies for social equity scenario adds direct labour market interventions that result in an environmental performance similar to green growth while improving social conditions at the cost of increasing public deficit. The degrowth scenario further adds a reduction in consumption and exports, and achieves a greater reduction in emissions and inequality with higher public deficit, despite the introduction of a wealth tax. We argue that new radical social policies can combine social prosperity and low-carbon emissions and are economically and politically feasible.



a,b, Comparison, from 2014–2050, of GHG emissions (a) and income inequality (b) under the baseline scenario (black) compared with the three policy mixes: green growth (green), PSEs (red) and degrowth (blue). The vertical dotted lines indicate introduction of the policies in the year 2019. The horizontal reference lines in a indicate the EU Climate Action targets for the reduction of GHG emissions by 2030 (-40%; left) and by 2050 (-80%; right) with respect to the 1990 level. Solid lines and shaded areas indicate the means and 95% confidence intervals, respectively, of 500 simulations for each scenario, with different random processes for the extraction of new technologies. PSE = Policies for social equity.



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