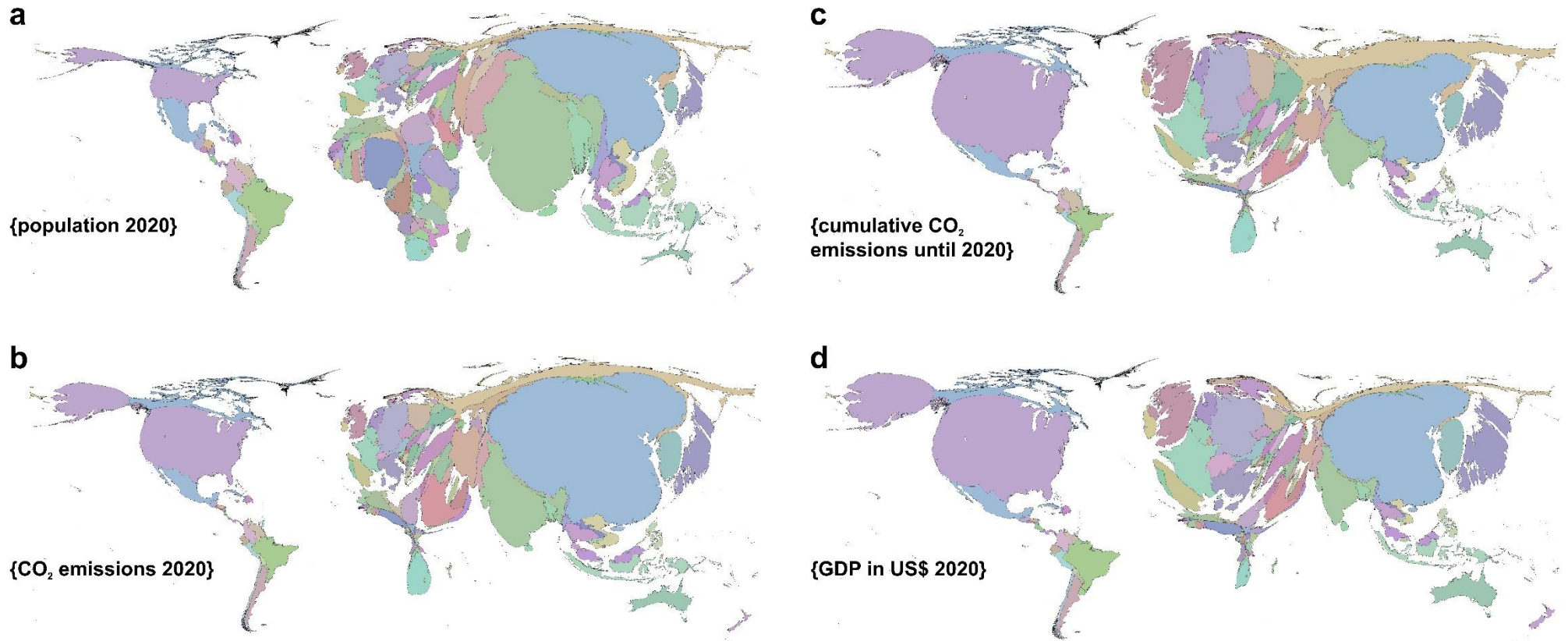


National Climate Change Responsibilities



Cartogram set “National climate change responsibilities”: visualizing the relation between population numbers, CO₂ emissions and wealth of countries by distorting country polygons by

- population in 2020 (a)
- fossil-fuel CO₂ emissions in 2020 (b)
- cumulative fossil-fuel CO₂ emissions from since industrialization (around 1850) to 2020 (c)
- gross domestic product (GDP) in 2020 (in constant 2015 US\$, market prices) (d).

Distorter variables are indicated in curly brackets.

The similarity of c and d visualizes that the wealth of most countries is based on their climate-damaging emissions since industrialization. It is these emissions and not the emissions in a particular year that are relevant for climate change (Döll 2017).

This cartogram set is an update of the corresponding cartogram set for the year 2010 described in Döll (2017). For the update to the year 2020, annual emissions for the years 2011-2020 (Crippa et al. 2021) were added to the cumulative emissions until 2010 of Döll (2017). Country data for population and gross domestic product for 2020 are, with few exceptions, based on a World Bank database (World Bank 2021).

References

- Crippa, M., Guizzardi, D., Solazzo, E., Muntean, M., Schaaf, E., Monforti-Ferrario, F., Banja, M., Olivier, J.G.J., Grassi, G., Rossi, S., Vignati, E. (2021) GHG emissions of all world countries - 2021 Report, EUR 30831 EN, Publications Office of the European Union, Luxembourg, ISBN 978-92-76-41547-3, doi:10.2760/074804, JRC126363.
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