Energy Use Trends – Canada and the World

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Key Graphs for All Levels (Lesson 2–6)

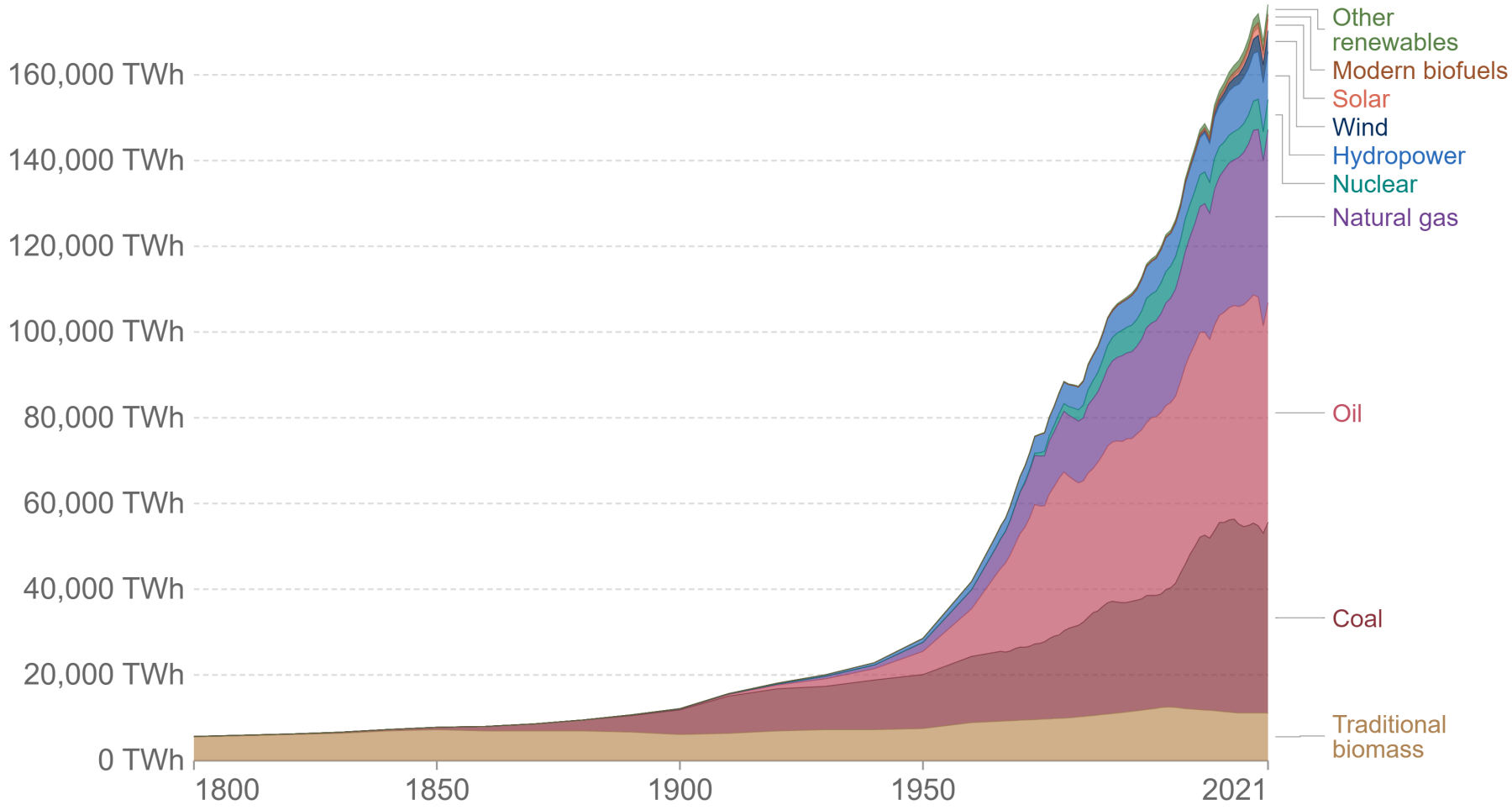
How has energy **use** and **source** changed worldwide?

https://ourworldindata.org/grapher/global-energy-substitution?time=earliest..2021

Global primary energy consumption by source

Primary energy is calculated based on the 'substitution method' which takes account of the inefficiencies in fossil fuel production by converting non-fossil energy into the energy inputs required if they had the same conversion losses as fossil fuels.

Our World in Data

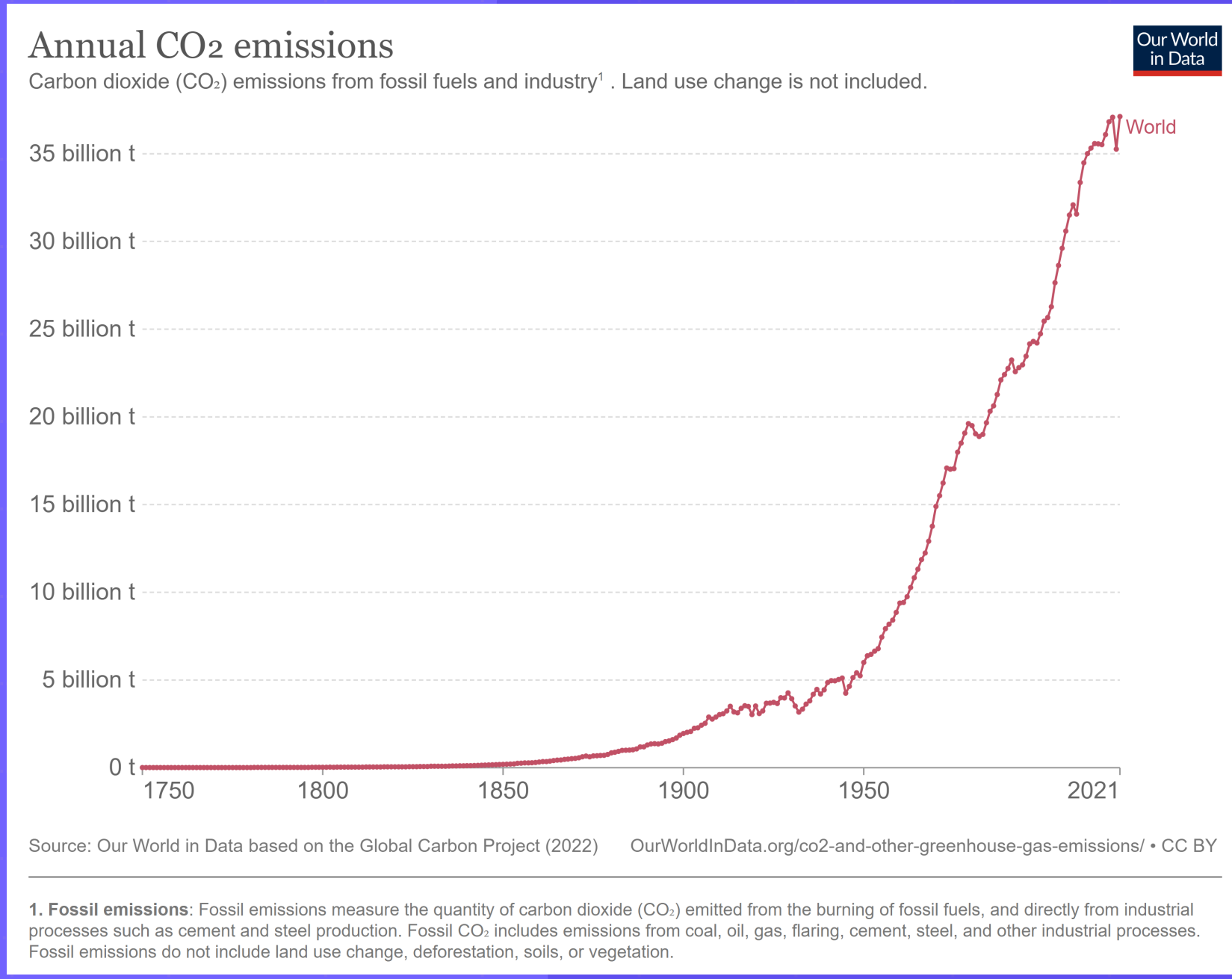


Source: Our World in Data based on Vaclav Smil (2017) and BP Statistical Review of World Energy

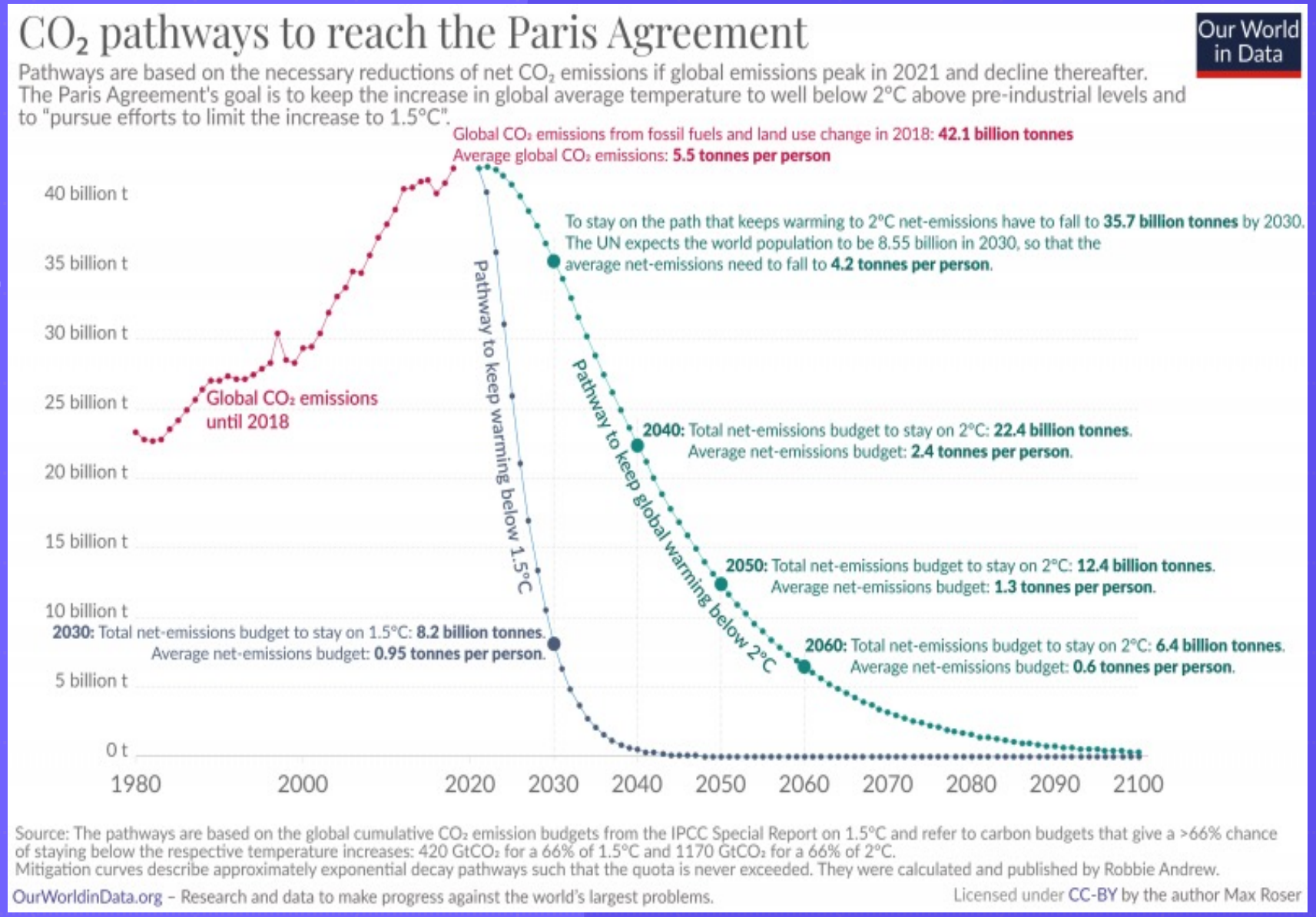
OurWorldInData.org/energy • CC BY

What do you notice about the changes in CO_2 from 1750 to today?

https://ourworldindata.org/co2-emissions



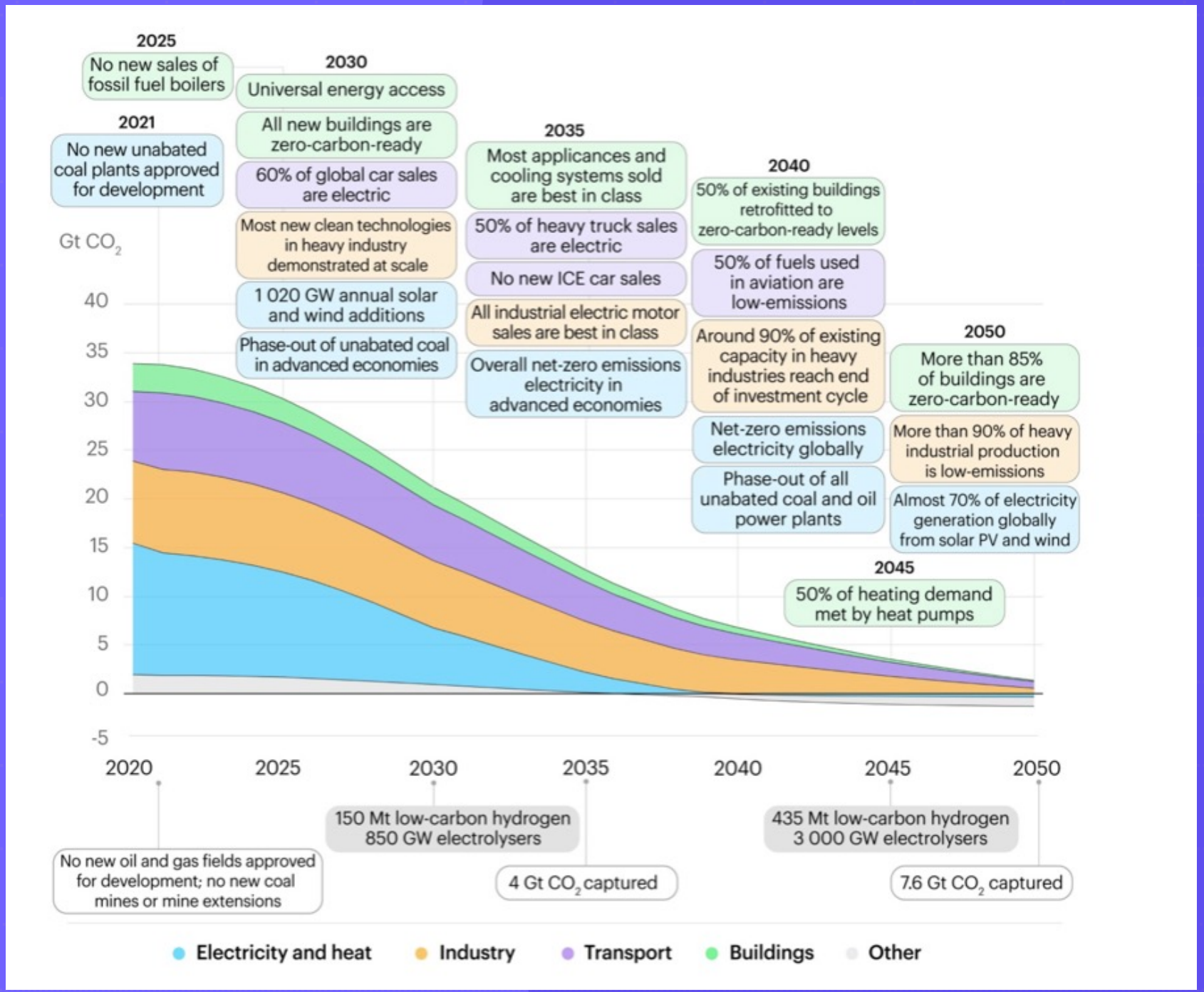
What will have to change for CO_2 emissions to drop to meet the Paris Agreement targets?



https://ourworldindata.org/worlds-energy-problem

How do these proposed actions and changes align with what you heard about in your interviews?

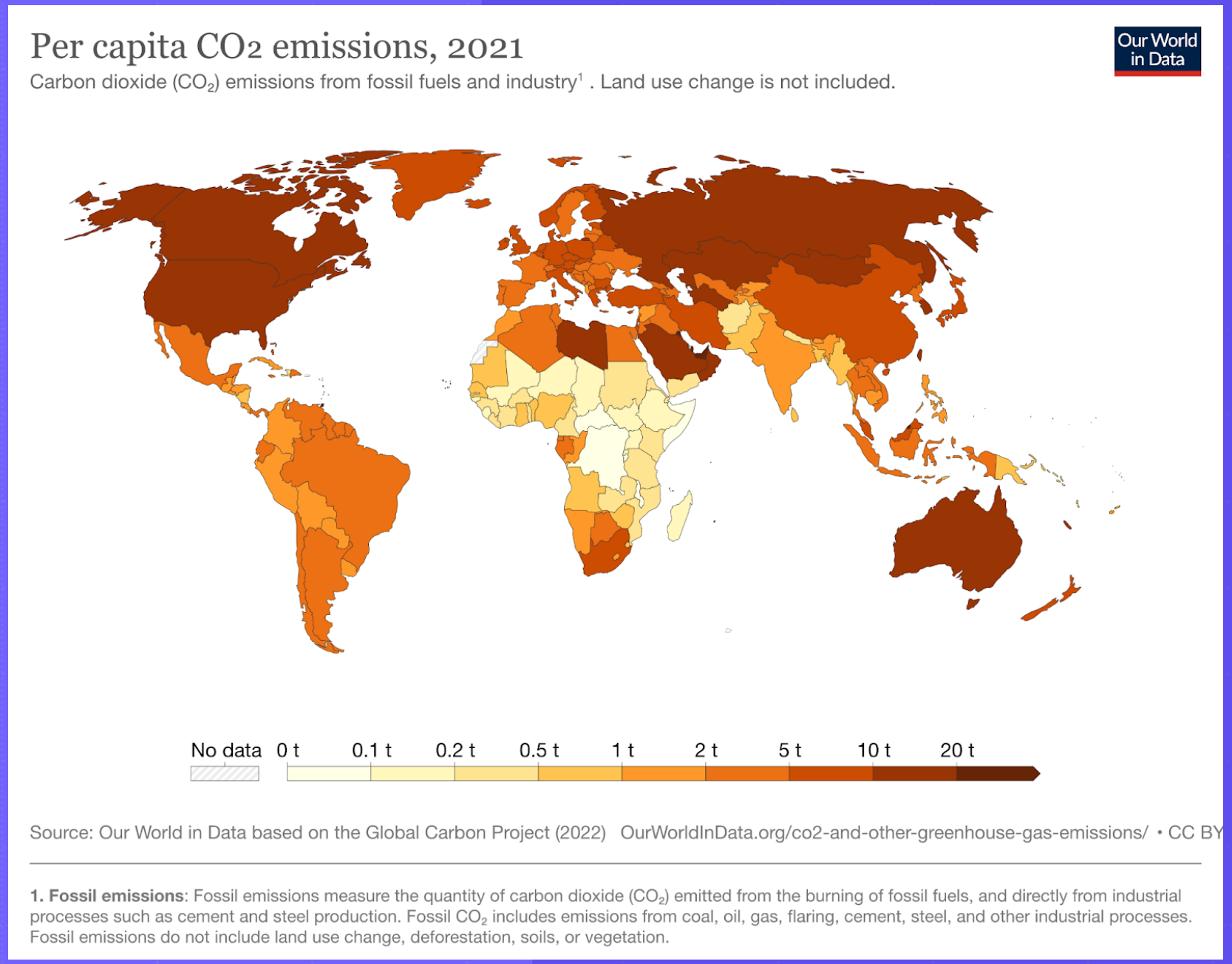
https://www.weforum.org/agenda/2021/06/net-zero-emissions-2050-milestones/



Additional Graphs for Lessons 3–6

How do the emissions per person (per capita) compare? Why do you think these are so different?

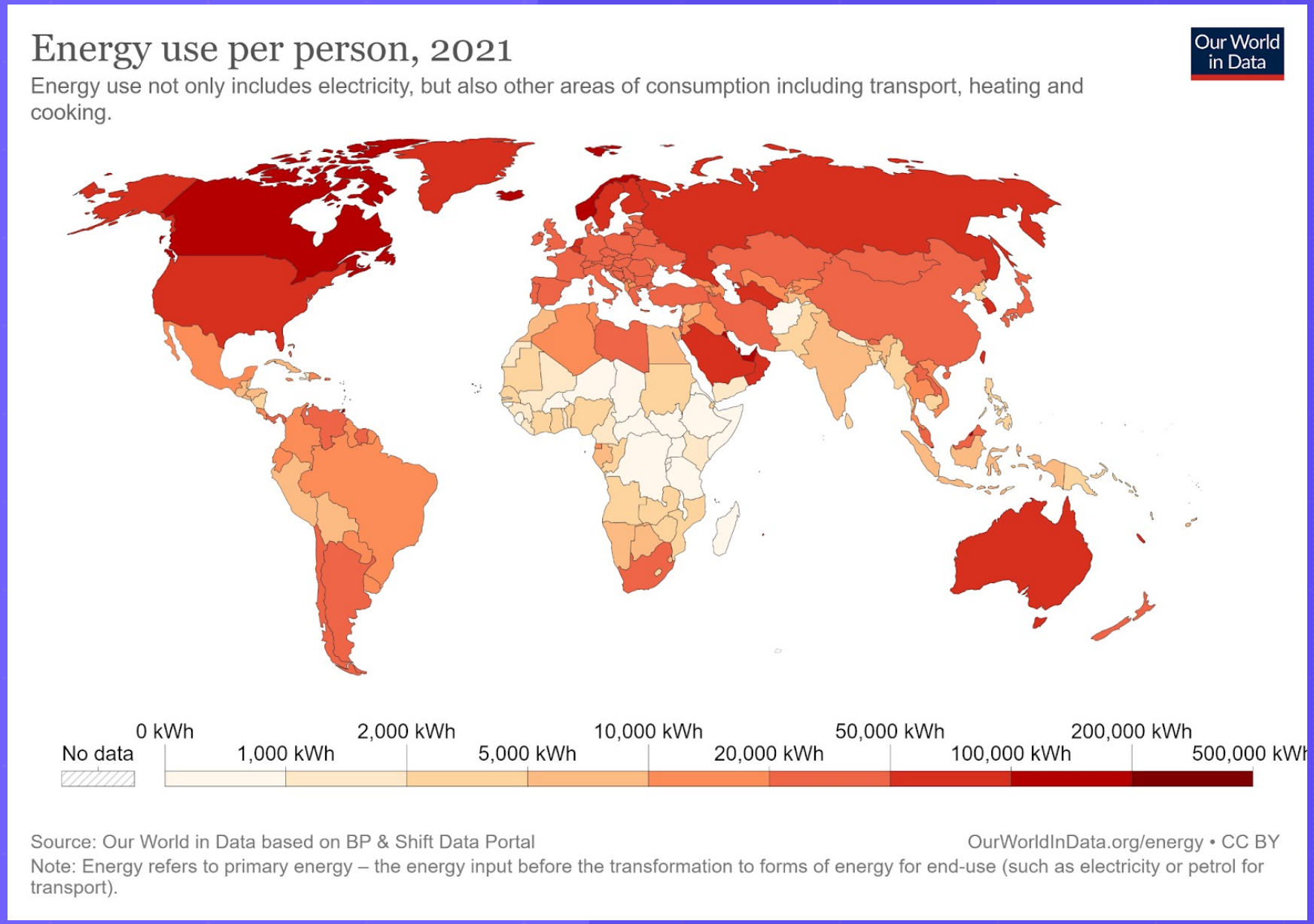
https://ourworldindata.org/co2-emissions



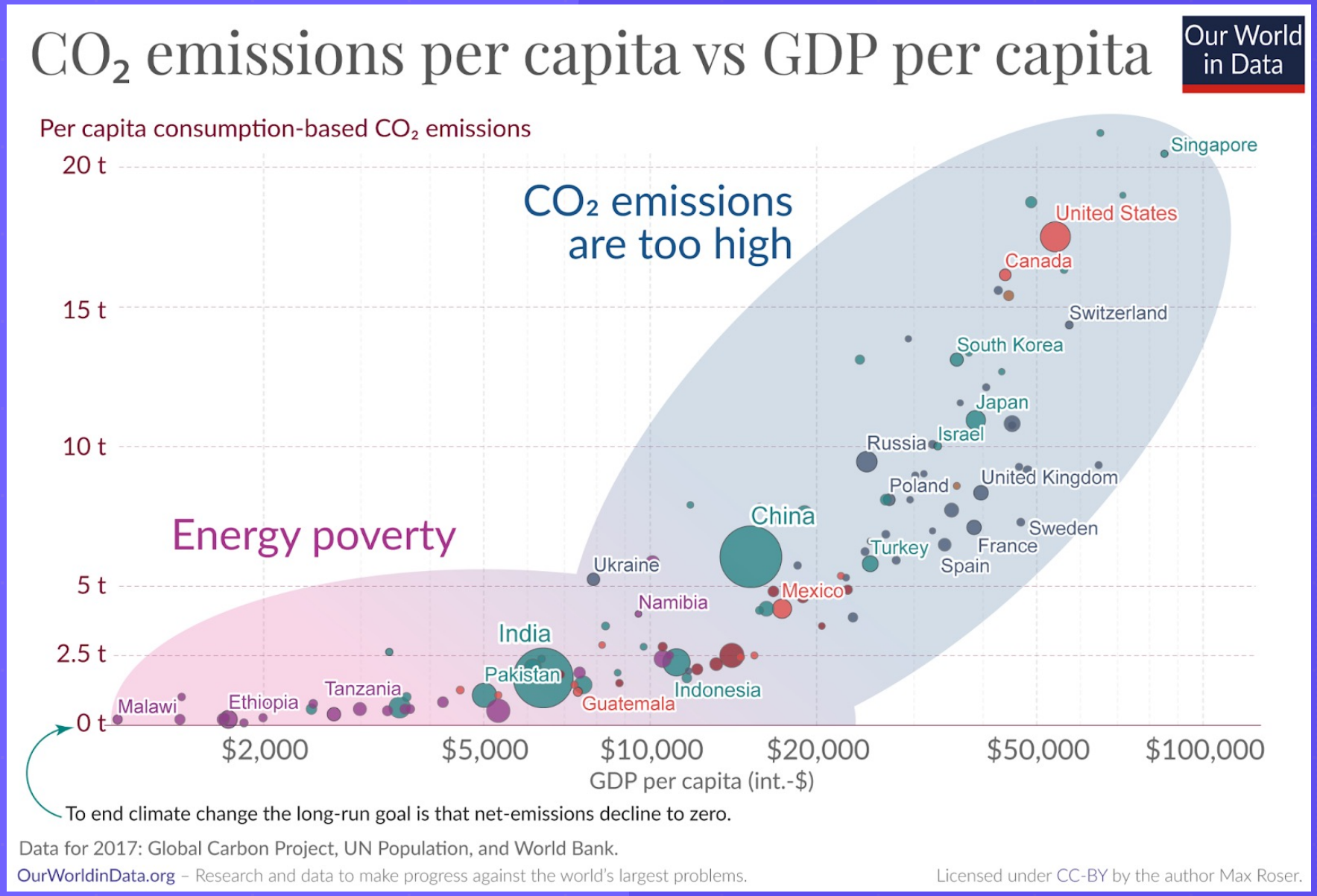
Additional Graphs for Lessons 5–6

How does energy use per person (per capita) compare? Why?

https://ourworldindata.org/energy

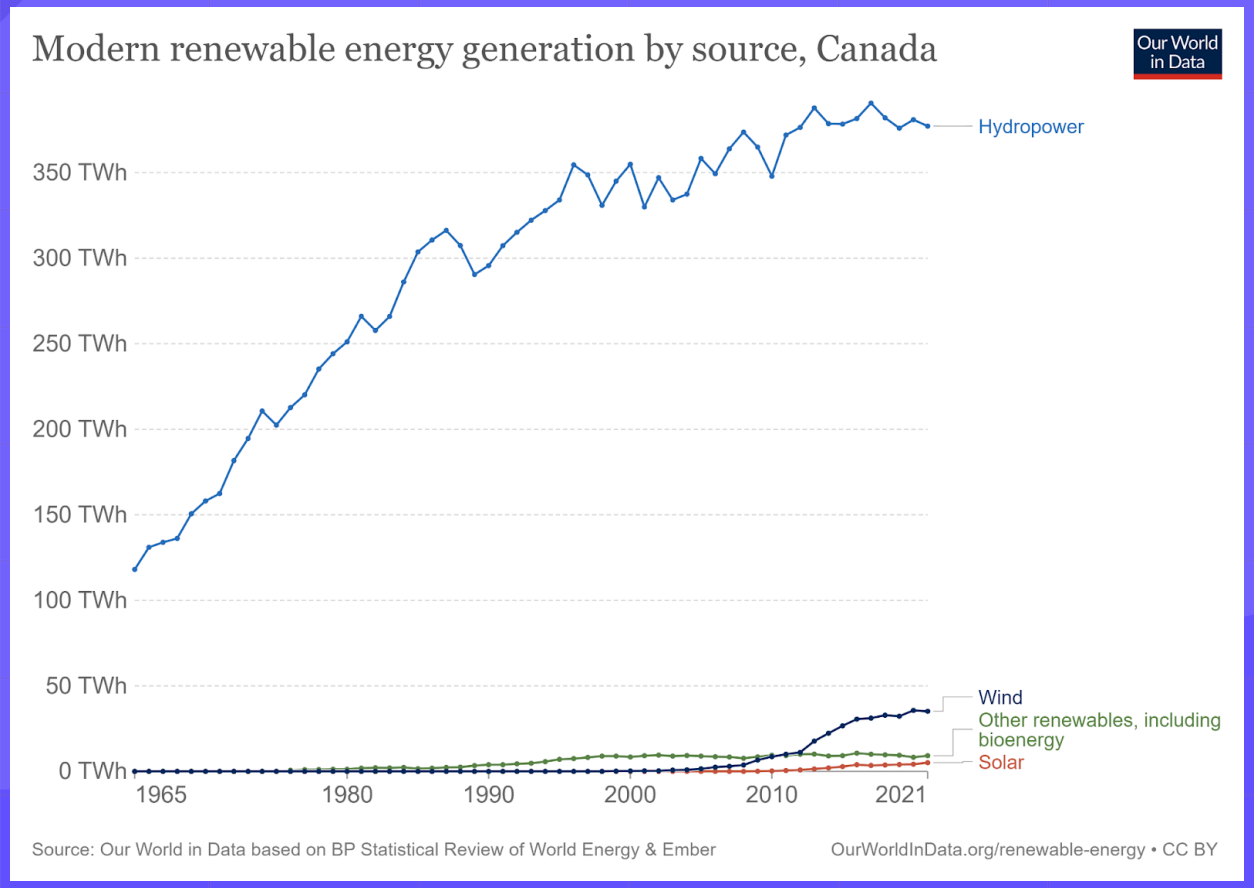


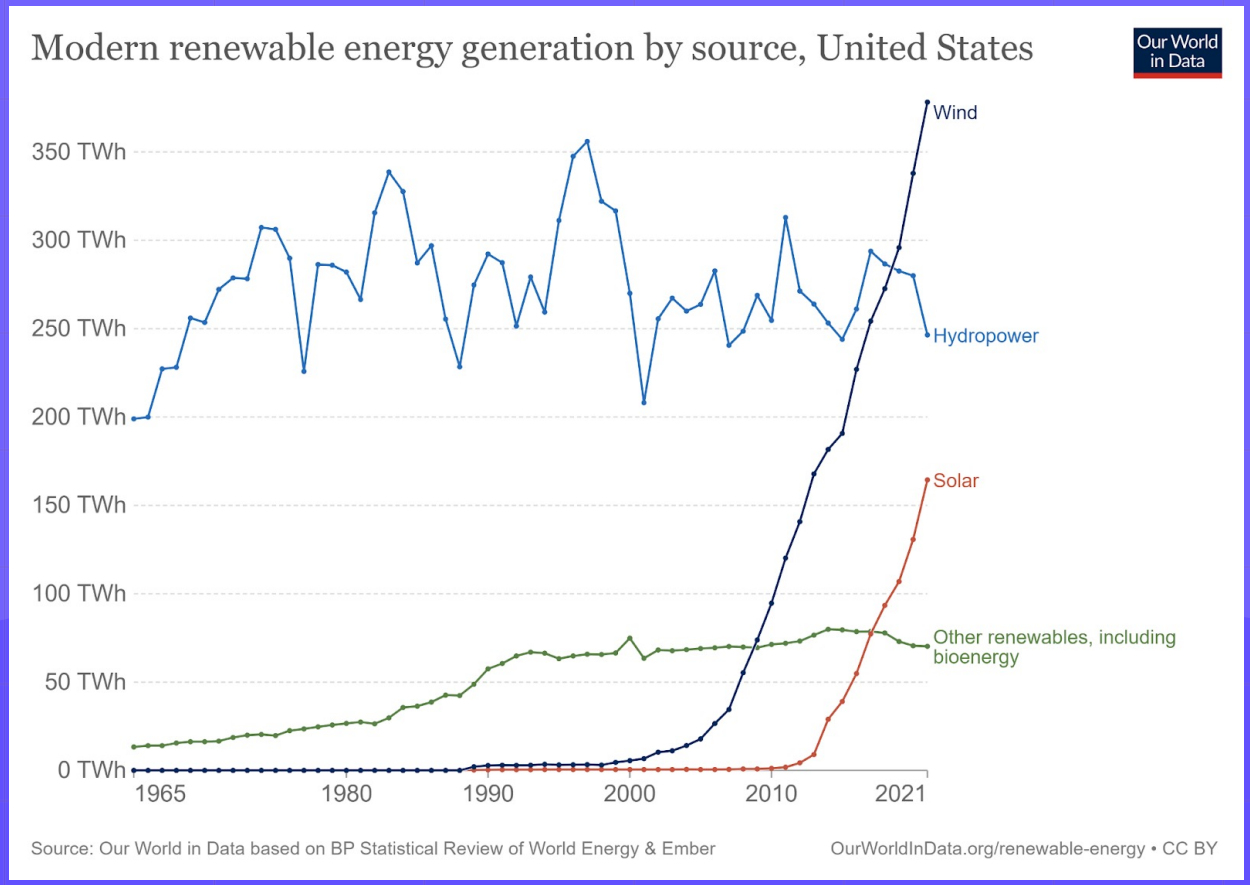
What is energy poverty? When we think of emissions targets, should all countries be treated equally?



https://ourworldindata.org/worlds-energy-problem

What do you notice about the differences in the trends in renewable energy source use in Canada vs. the USA? What may influence these differences?

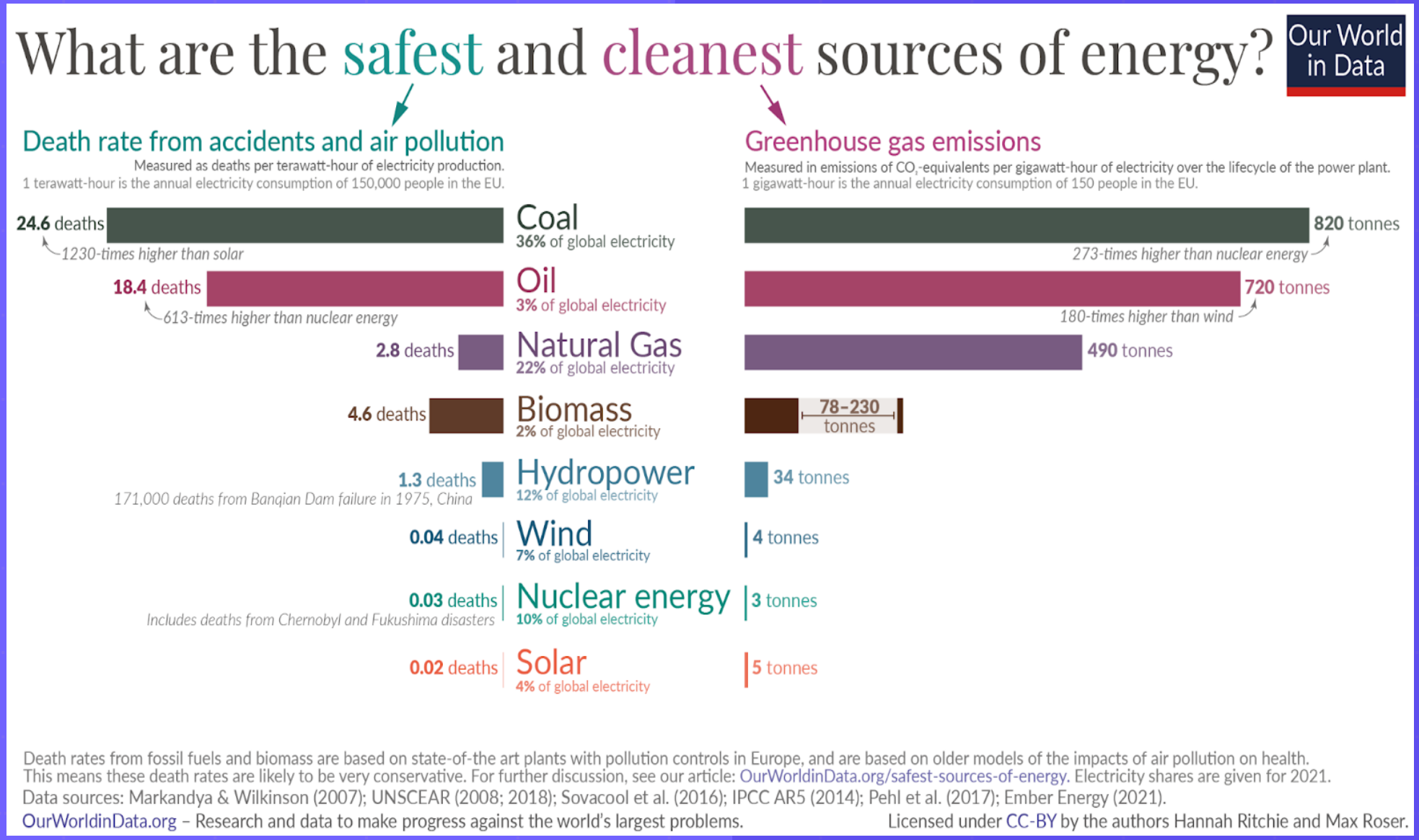




https://ourworldindata.org/renewable-energy

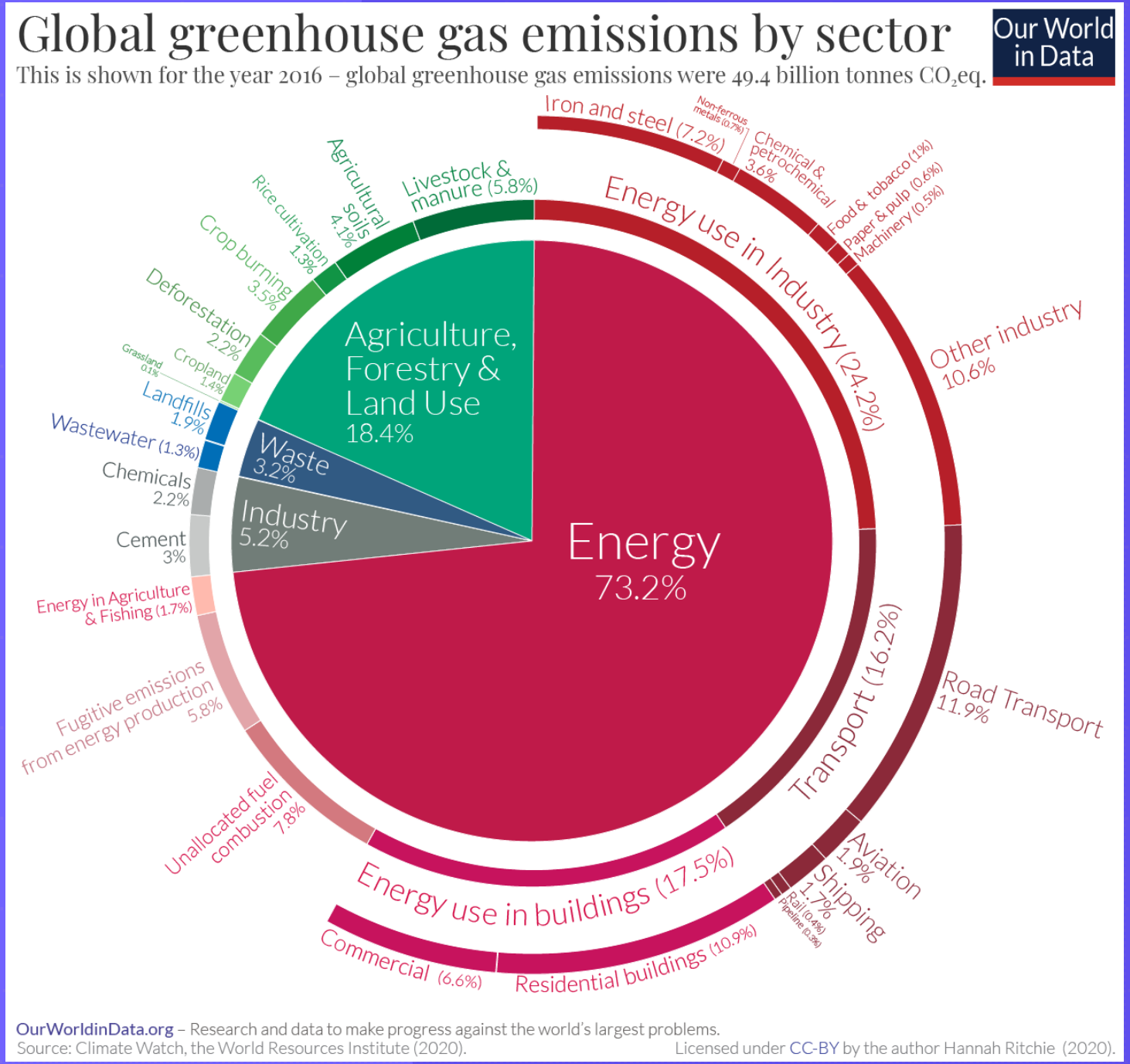
Which energy sources are both clean and safe (fewer accidents)? Why?

https://ourworldindata.org/safest-sources-of-energy



Which sectors produce the greatest amounts of greenhouse gas emissions?

https://ourworldindata.org/ghg-emissions-by-sector



Which energy sources have decreased their costs of building and supplying energy? Why?

https://ourworldindata.org/ghg-emissions-by-sector