

Global CO₂ Emissions and the shift towards Renewable Energy

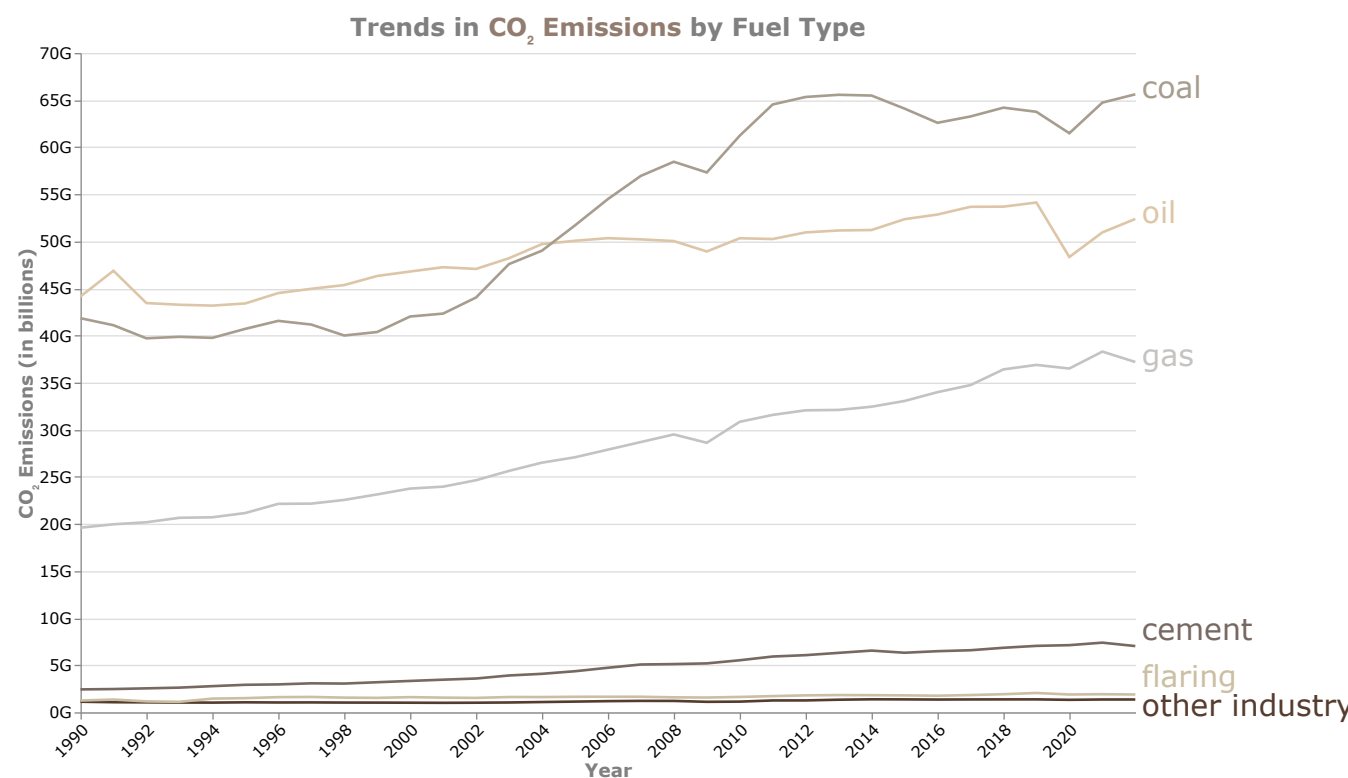
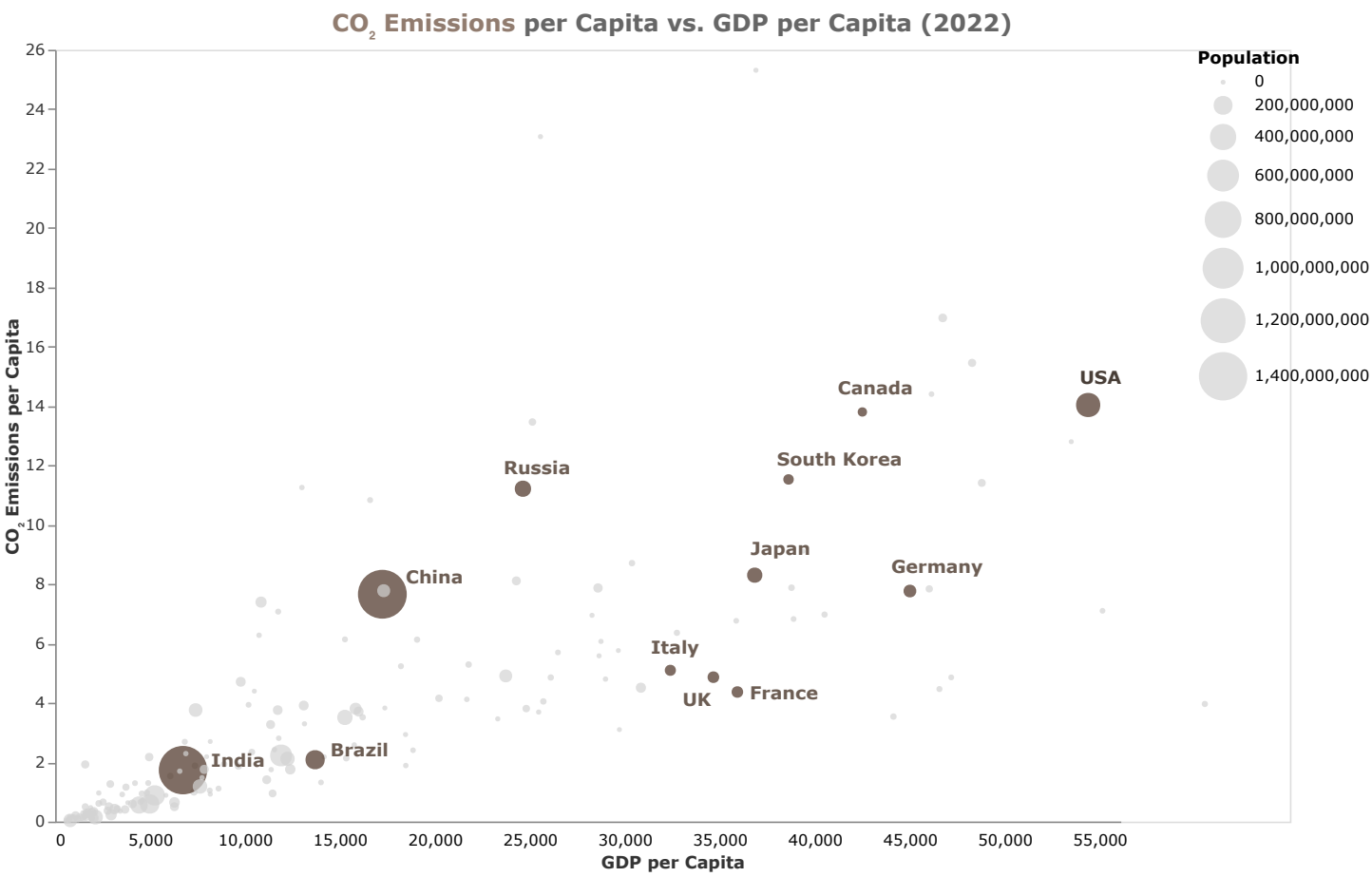
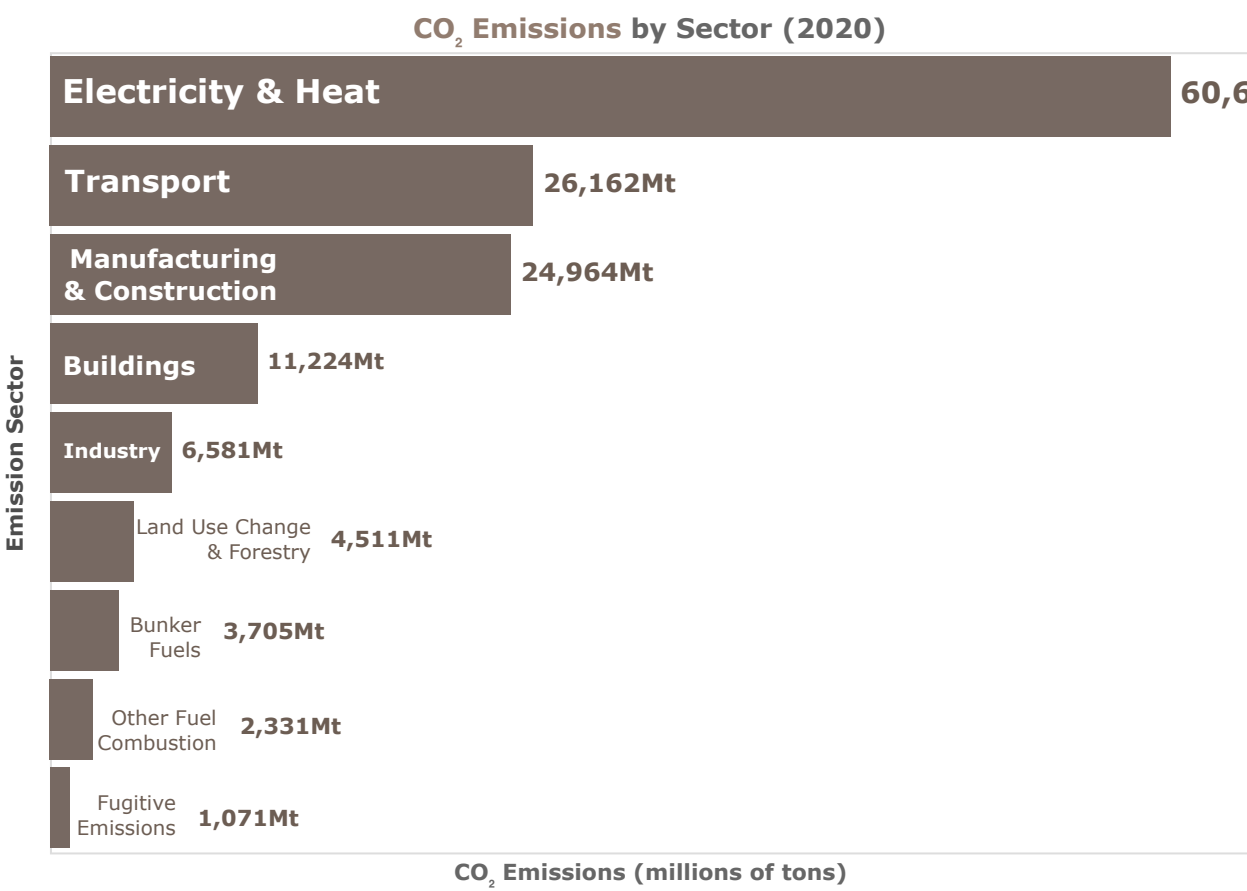
by Magdalena Barros

The Global Landscape of CO₂ Emissions

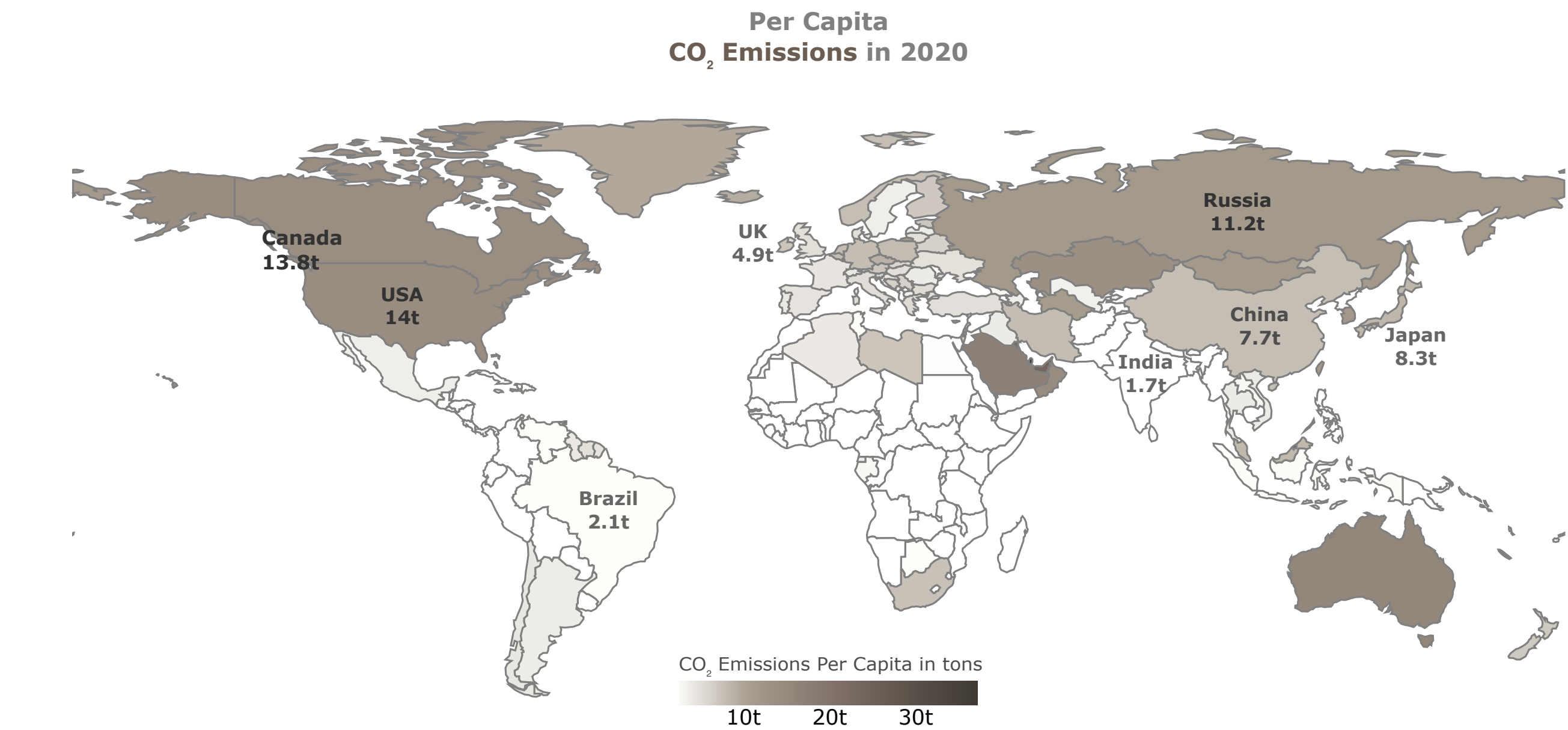
In 2020, global CO₂ emissions reached alarming levels, primarily driven by key sectors such as electricity and heat, which accounted for a staggering 60,660 million tons. Following closely are transportation and manufacturing & construction, with emissions of 26,162 million tons and 24,964 million tons, respectively.

The accompanying world map of CO₂ emissions per capita underscores significant disparities among countries, with Canada, the United States, and Russia exhibiting notably high levels of pollution per person. Among the world's major economies, the United States stands out with the highest CO₂ emissions and GDP per capita, highlighting the substantial environmental impact of its economic activities. In contrast, Brazil and India are among the countries with the lowest CO₂ emissions per capita, reflecting their different stages of economic development and emphasizing the need for targeted policies to address emissions while considering economic growth.

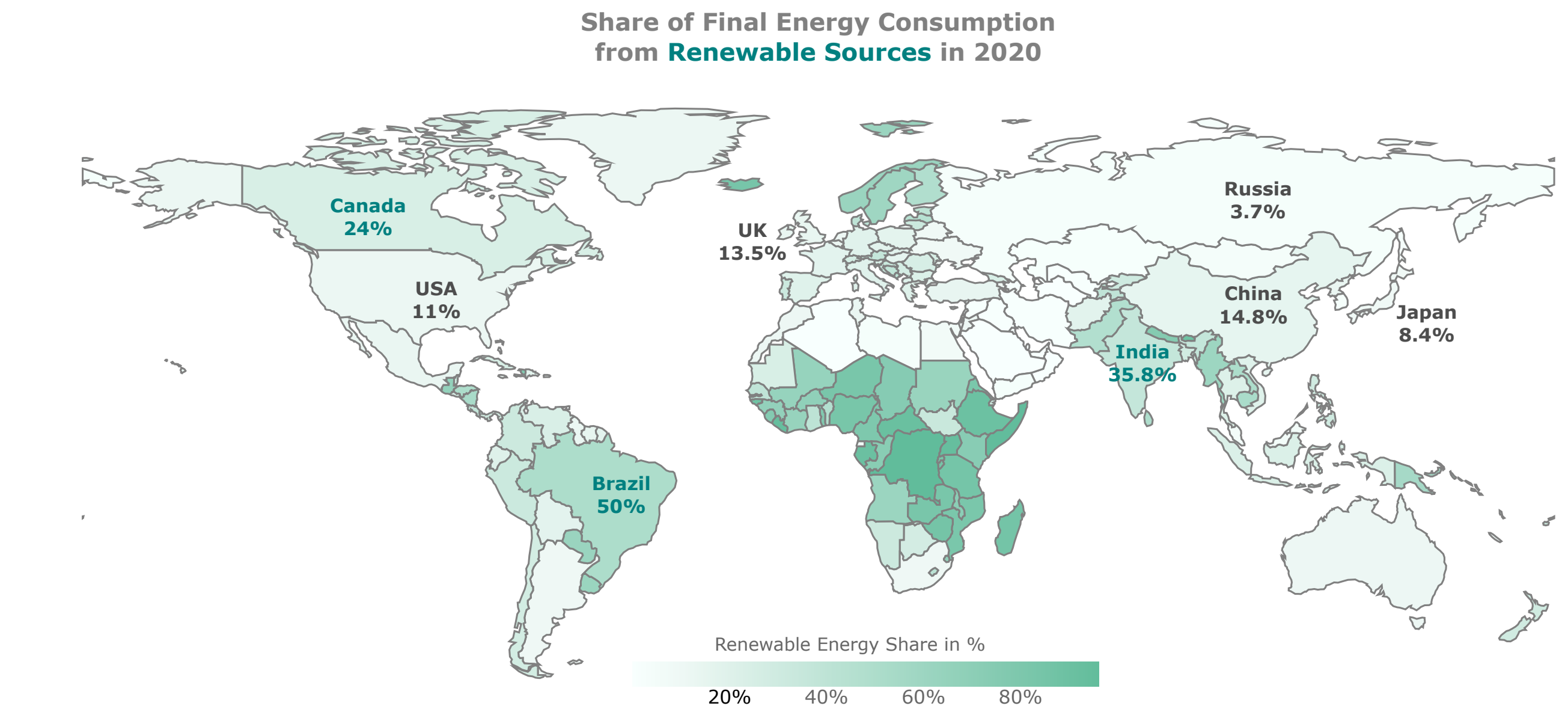
The analysis of emissions by fuel type reveals a troubling trend: coal, oil, and gas have seen consistent growth over time, remaining the top contributors to global CO₂ emissions. These insights collectively highlight the urgent need for effective policies that not only aim to reduce emissions but also promote the adoption of renewable energy globally.



Information source: Our World in Data



As nations continue to *invest* in and *expand* their *renewable energy capabilities*, it is crucial to foster *policies that support sustainable practices while balancing economic growth*. The path to a greener future *relies on leveraging these renewable resources to create a cleaner, more sustainable world for generations to come*.



Leveraging renewable energies: A way forward

In recent years, the global shift towards renewable energy sources has become increasingly vital in the fight against climate change. Among the major economies, Brazil stands out with an impressive 50% of its energy coming from renewable sources, closely followed by India at 35.8% and Canada at 24%. This significant reliance on renewables demonstrates a commitment to sustainable development and environmental responsibility.

The generation of renewable energy has seen a steady increase over time, with hydropower leading the way as the largest source of renewable electricity, followed closely by wind energy. This growth reflects a broader trend towards cleaner energy production and a gradual decline in dependence on fossil fuels.

In terms of consumption, hydropower remains the highest source of renewable energy. This consumption pattern highlights the importance of diverse energy portfolios in meeting national energy needs.

Investment in renewable energy technologies is also on the rise, with wind energy (\$143B) attracting the highest level of investment, followed by solar energy (\$141B). This trend signifies a growing recognition of the economic and environmental benefits of transitioning to renewable energy sources.

