

NetZERO

GCC IMPACT

CARBON EMISSIONS 2022



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01 GLOBAL OVERVIEW

In 2022, the world saw an increase in CO2 emissions, primarily driven by the growing demand for energy and the continued reliance on fossil fuels. According to the International Energy Agency, global emissions increased by 1.5% compared to the previous year.

China remained the largest contributor, accounting for **29% of global greenhouse gas emissions in 2022**. The United States followed as the second-largest emitter, with significant shares attributed to other major economies, such as the European Union and India.

Per-capita emissions showed significant variation between different countries. Wealthy industrialized nations typically exhibited higher per-capita emissions, reflecting their higher levels of consumption and energy usage. However, numerous developing countries, particularly those with large populations and emerging economies, also faced rising per-capita emissions as they pursued industrialization and urbanization.

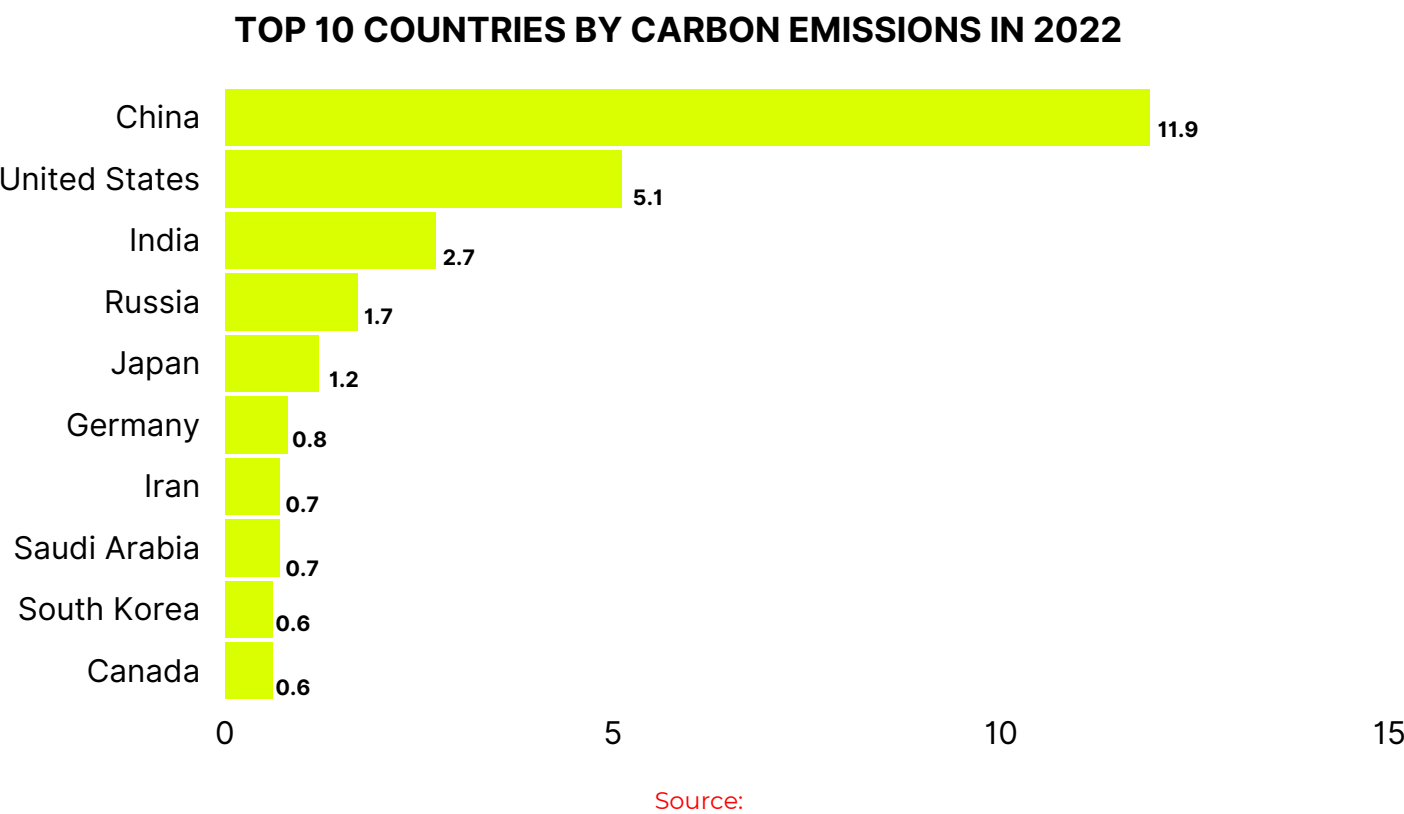
In 2022, the global average for CO2 emissions per capita was around **5 tons per person**. Countries such as the United States, Australia, and Canada had much higher per-capita emissions, surpassing 15 tons per person. In contrast, lower-income countries in Africa and South Asia generally had per-capita emissions below 2 tons.

Efforts to reduce carbon emissions worldwide should focus on both the overall emissions by country and per-capita emissions. Emphasis should be placed on transitioning to renewable energy sources, improving energy efficiency, and fostering sustainable development across all regions.

Top Ten Countries Carbon Emissions

In 2022, global energy-related CO2 emissions grew by 0.9%, reaching a new high of over 36.8 gigatons (Gt) according to the International Energy Agency. This growth was much slower than the rebound observed in 2021 when emissions increased by more than 6%. The top ten countries with the highest carbon emissions in 2022 contributed significantly to this global trend.

A study published in Nature found that CO2 emissions for 2022 increased by 1.5% relative to 2021, reaching 36.1 GtCO2. This increase was 7.9% and 2.0% relative to 2020 and 2019, respectively.



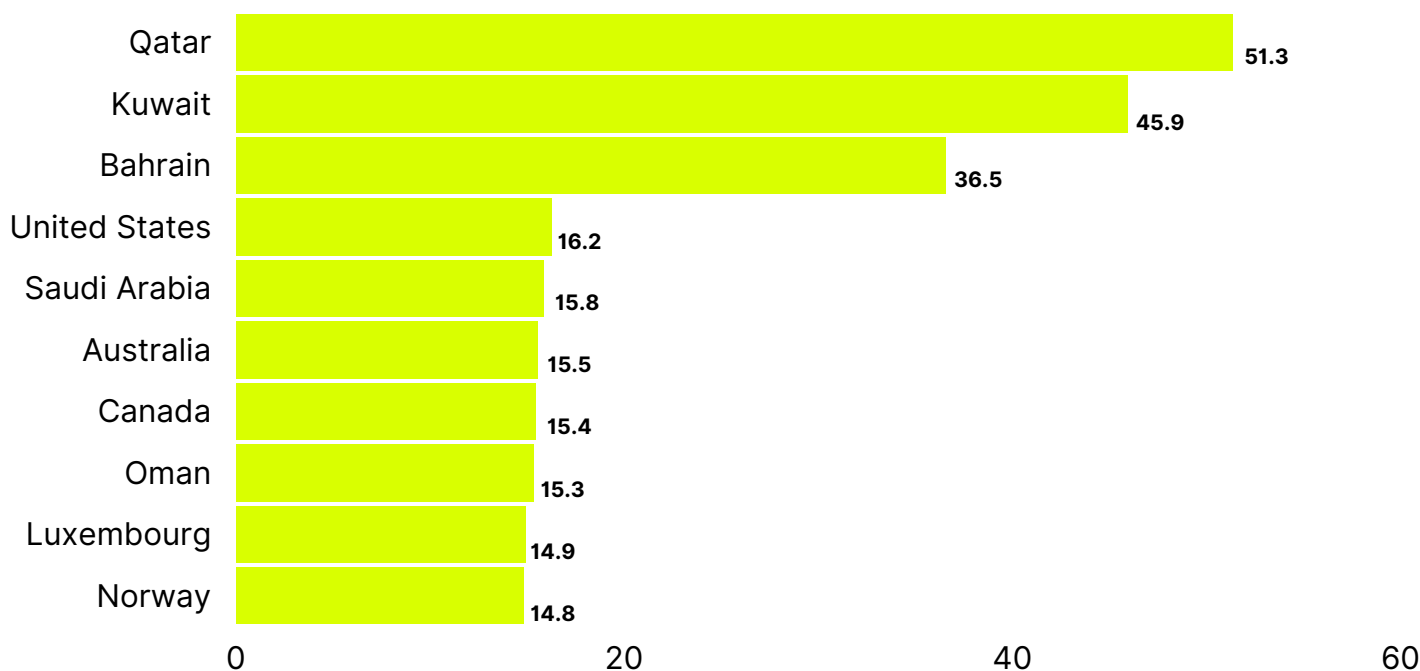
EMISSIONS 02 PER CAPITA

Concerning the GCC countries, Saudi Arabia had the highest emissions in 2022 and ranked within the top ten global emitters. In contrast, other GCC countries had lower emissions, although they still contributed to the overall global figure.

When analyzing carbon emissions per capita, we can gain insight into the average emissions produced by each person within a country. This information can help identify countries with larger populations that produce lower emissions per person and vice versa.

In 2022, the top ten countries by carbon emissions per capita were as follows:

TOP 10 PER CAPITA CARBON EMISSIONS COUNTRY



Source:

From the available data, it is evident that **GCC countries Qatar, Kuwait, Bahrain, and Saudi Arabia are among the top ten countries in terms of per capita carbon emissions.** This highlights the importance of taking population size into consideration when assessing each country's contribution to global emissions.

GCC'S CARBON 03 EMISSIONS

When it comes to the GCC countries, their per capita carbon emissions are significantly higher than the global average. This is primarily due to their oil-dependent economies and energy-intensive industries, as well as the region's rapidly growing populations and increasing demand for electricity and transportation. This pattern of high per capita emissions is a prominent feature across the majority of GCC countries, including Saudi Arabia, the United Arab Emirates, Qatar, Kuwait, and Oman.

Several factors affect per capita carbon emissions, such as:

- Economic development levels
- Population size
- Energy consumption patterns
- Industrial activities
- Climate and geographic factors

Globally, there has been significant progress in reducing per capita carbon emissions through increased efficiency, renewable energy adoption, and climate change mitigation policies. However, there is still a long way to go in many countries, including those within the GCC region, to reach the necessary levels of emissions reduction for combating climate change.

Efforts to reduce per capita carbon emissions should consider context-specific approaches and policies. By embracing cleaner technologies, energy efficiency measures, and renewable energy sources, countries can move towards a more sustainable future while reducing their per capita carbon emissions.

In this section, we discuss the carbon emissions of the GCC countries, which play a significant role in the global energy landscape. Each of the GCC countries - Saudi Arabia, United Arab Emirates, Qatar, Kuwait, Oman, and Bahrain - has unique emission levels and trends that are worth examining.



Saudi Arabia

One of the world's largest producers and exporters of oil. As a result, its carbon emissions are considerable. The country has taken proactive steps to reduce its dependency on fossil fuels and invest in renewable energy sources. Nevertheless, carbon emissions per capita in Saudi Arabia remain high.



United Arab Emirates

Another significant oil-producing country in the GCC. It has embarked on a journey towards diversifying its economy and energy sources, focusing on renewable energy and nuclear power. Although carbon emissions in the UAE are still substantial, the country has made progress in its efforts to reduce its environmental footprint.



Qatar

A major natural gas producer, which contributes significantly to its carbon emissions. The country is also prioritizing investments in renewable energy sources, such as solar power, to reduce its dependency on fossil fuels. However, carbon emissions per capita remain high in Qatar compared to other countries.



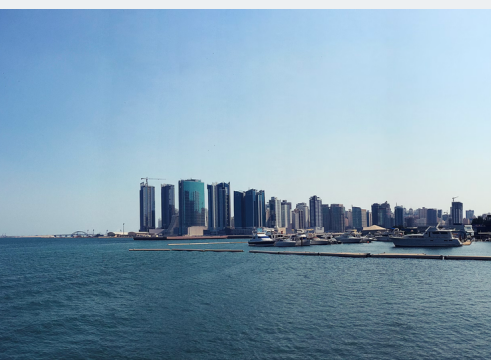
Kuwait

Known for its large oil reserves, leading to substantial carbon emissions. The country has acknowledged the importance of transitioning to cleaner energy sources and is investing in renewable energy projects. Despite these efforts, Kuwait's carbon emissions per capita are still significant.



Oman

As a relatively small oil and gas producer in the GCC region, Oman's carbon emissions may not be as substantial as its neighbors. However, the country understands the importance of renewable energy and has started exploring options such as solar and wind power. Oman's carbon emissions per capita are moderate compared to other GCC countries.



Bahrain

Being the smallest country in the GCC region, has comparatively lower carbon emissions than its counterparts. The country is focused on reducing its dependence on fossil fuels and diversifying its energy sources. Bahrain's carbon emissions per capita remain relatively low compared to the larger GCC countries.

04 GCC'S GREEN INITIATIVES

Several key strategies emerged in 2022 to help reduce carbon emissions by countries, including the Gulf Cooperation Council (GCC) member states. One of the primary focuses was a shift towards renewable energy sources, such as solar and wind power.

For example, countries like the United Arab Emirates and Saudi Arabia invested heavily in solar power plants to decrease their reliance on fossil fuels.

Another critical strategy involved enhancing energy efficiency measures across various sectors, such as buildings, transportation, and industry. This included the adoption of more energy-efficient technologies, strict energy efficiency standards, and financial incentives to encourage the use of energy-efficient products. Governments across the world also focused on the development of smart cities with integrated energy management systems to further lower energy consumption and CO2 emissions.

Improving public transportation systems played a significant role in reducing carbon emissions in 2022. By making public transit more accessible, efficient, and reliable, governments aimed to lower the dependence on private vehicles. This led to reduced traffic congestion and minimized overall fuel consumption, thereby resulting in lower CO2 emissions. In addition, countries pushed for greater deployment of electric vehicles (EVs), with many governments offering incentives to encourage the adoption of EVs.

05 REFERENCES

1. [IEA - CO2 Emissions in 2022](#)
2. [Statista - Distribution of greenhouse gas emissions worldwide in 2022, by major emitter](#)
3. [Our World in data - CO2 Emissions](#)



At NetZero.Earth, we're driven by a bold vision: promoting environmental sustainability and helping GCC businesses understand and reduce their carbon emissions.

Our expert team is ready to collaborate closely with you, developing strategies that align with your sustainability goals. And if you don't have clear goals, we'll help you create them.

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