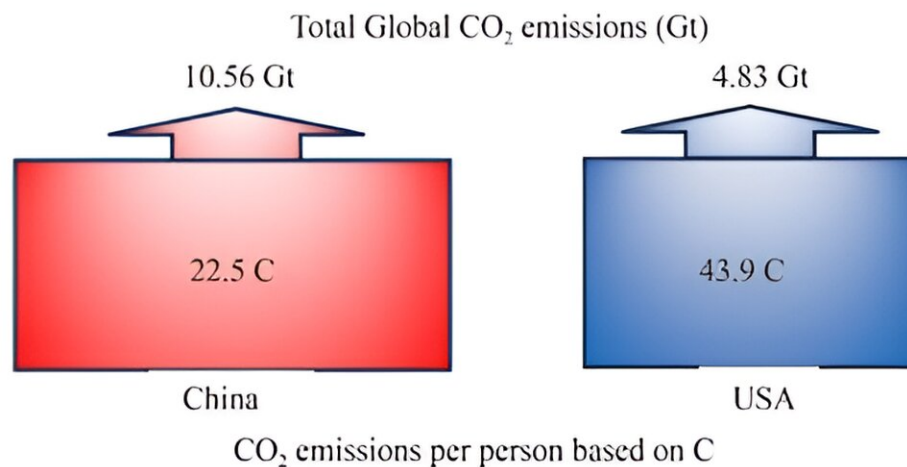


# Revving up individual's climate action: How our plates and wheels can drive down carbon emissions

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Credit: *Frontiers of Environmental Science & Engineering* (2024). DOI: 10.1007/s11783-024-1830-5

As the world grapples with the urgent need to reduce greenhouse gas emissions, there is a growing interest in understanding how individual actions can contribute to this goal. The complexity and scale of energy use and carbon emissions data can be overwhelming for the average person, often leading to a disconnect between daily activities and their environmental impact.

The global imperative to reduce [greenhouse gas emissions](#) is well-established, with individual actions playing a critical role in this endeavor.

According to a study led by [researcher](#) from the Institute of Energy and the Environment at The Pennsylvania State University, personal lifestyle choices, particularly regarding transportation and diet, can significantly lower an individual's carbon footprint.

[The study](#) is published in *Frontiers of Environmental Science & Engineering*.

Researchers have developed a novel framework that quantifies individual [energy](#) use and carbon emissions through two intuitive units: "D" (daily energy use) and "C" (carbon emissions). This method simplifies the understanding of personal [environmental impact](#) by comparing it to daily food consumption.

The study finds that personal activities such as driving and dietary choices significantly influence carbon footprints. For instance, the typical American's activities result in a carbon emission rate of 43.9°C, starkly higher than the 22.5°C observed in China. These figures illuminate the substantial variance in per capita energy consumption and emission rates between countries, underscoring the potential for major reductions through personalized action.

By adopting more efficient transportation methods and making smarter dietary choices, individuals can achieve remarkable reductions in their carbon output. The study emphasizes that even minor changes in daily habits can cumulatively lead to significant environmental benefits, making a compelling case for individual responsibility in global carbon reduction efforts.

Bruce Logan, the study's lead researcher, stated, "Understanding and managing our personal energy use and carbon emissions is crucial for environmental sustainability. Our approach breaks down complex data into practical, relatable terms, empowering individuals to make informed decisions that benefit our planet."

This research not only provides a framework for individuals to measure and reduce their carbon footprint but also serves as a call to action for collective participation in environmental stewardship. As the study concludes, the choices we make every day in our homes and on our plates have the power to shape our planet's future.

**More information:** Bruce Logan et al, Your personal choices in transportation and food are important for lowering carbon emissions, *Frontiers of Environmental Science & Engineering* (2024). [DOI: 10.1007/s11783-024-1830-5](https://doi.org/10.1007/s11783-024-1830-5)

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