Why the World Must Look at CO_2 Emissions Per Capita

And What It Reveals About Climate Responsibility

By Vineet Mittal

Founder & Chairman, Avaada Group

As climate negotiations grow more urgent and global investments in clean energy accelerate, one metric continues to sharpen the focus on the real question of responsibility: **per capita CO_2 emissions.** It is a measure rooted in fairness, and it is time the global climate discourse gives it the weight it deserves.

Per capita emissions, calculated by dividing a country's fossil fuel and industrial CO_2 emissions by its population, offer a critical lens to understand the true burden of climate responsibility. According to the Global Carbon Budget and Our World in Data, the global average stands at around **4.8 tonnes per person per year.** That number has remained broadly stable for more than a decade. What has not remained stable is the gap between the world's largest and smallest emitters.

In 2023, countries such as **Qatar, Bahrain, Kuwait, and the UAE emitted between 21 and 35 tonnes per person.** Canada, the United States, Australia, and Russia all ranged between **13 and 15 tonnes per capita**. In contrast, **India's per capita emissions were just 1.7 to 2 tonnes**, despite being the most populous country and the fourth-largest economy. **Sub-Saharan Africa**, home to nearly a billion people, emits **less than 0.5 tonnes per person**. This is a **300-fold gap** between the highest and lowest emitters.

These figures show how responsibility is distributed and why we must rethink how it should be shared.

Rethinking the Climate Lens

The traditional focus on **absolute emissions** often distorts the conversation. Countries like India and China appear prominent in such rankings due to their sheer population, not because of disproportionate consumption. When we look at **emission intensity**, the amount of emissions per unit of GDP. India performs far better than many developed economies. Over the last 15 years, **India has reduced its emission intensity by more than 36 percent**, proving that rapid growth and responsible climate action can go hand in hand.

China, at around **8 to 9 tonnes per person**, still emits less per capita than many advanced economies. **India,** even as it urbanizes and industrializes at scale, remains among the **lowest per capita emitters in the G20**.

Yet the burden of climate action is increasingly applied uniformly, without accounting for developmental context. This not only undermines fairness but also risks

weakening global progress. A more balanced approach is both rational and necessary.

Why Per Capita Metrics Matter

1. Climate Equity
The per capita lens highlights the asymmetry between contribution and consequence. Developed countries have built their prosperity over centuries of high-carbon growth. The Global South, meanwhile, is still emerging, yet is expected to decarbonize at the same pace. A per capita perspective brings much-needed balance to the debate.

2. Policy and Investment Alignment
Per capita data should guide climate finance and technology flows. High emitters must lead in cutting emissions. Lower-emitting countries like India need **supportive investments**, including concessional finance, access to green capital, and technology transfer. This enables clean growth where the impact per dollar is greatest.

3. Trade and Carbon Accounting
Current emissions metrics are territorial, overlooking **the carbon embedded in global trade.** Many lower-emitting countries import high-emission goods, while the emissions are counted in producer nations. A **consumption-based accounting** model would provide a more accurate and equitable foundation for policies such as carbon border adjustments.

India's Decisive Role

India is not only a low emitter; it is also a global clean energy leader. In the past decade, the country has expanded renewable capacity, rolled out one of the world's most ambitious solar programs, launched its National Green Hydrogen Mission, and digitized vast parts of its grid. It met its non-fossil energy target **five years ahead of schedule**.

Importantly, India is achieving this while **lifting millions out of poverty, building modern infrastructure**, and **creating green jobs at scale**. We are setting benchmarks for others and shaping the global energy transition through initiatives such as the International Solar Alliance and the Coalition for Disaster Resilient Infrastructure.

India's **development-linked decarbonization model** offers a scalable and replicable path. It recognizes that climate ambition must advance alongside economic progress. This is not an excuse for delay; it is a strategic framework for lasting global cooperation.

The Global Path Forward

Reducing global per capita emissions will require systemic change:

- Rapid scaling of **renewables**, energy storage, and smart grids
- Electrification of **transport and industry**
- Deployment of **green hydrogen, ammonia, and biofuels** for hard-to-abate sectors
- **Equitable climate finance** tailored to each country's developmental stage
- Recognition of **different national pathways** within global frameworks

Climate progress depends on two essentials: metrics and trust. Trust that each country will act, and trust that it will be supported in acting fairly. The next stage of climate policy must reflect this reality.

Toward a More Honest Climate Conversation

The per capita CO_2 metric is about clarity. It provides the world with a tool to understand emissions in context — to stop generalizing and start prioritizing where effort, finance, and accountability should go.

India's position is clear: **we are prepared to lead, to invest, and to innovate.** But responsibility must align with capacity and historical contribution.

This is a call for intelligent climate governance and for expectations that are fair, evidence-based, and outcome-driven.

As we head into upcoming climate forums and financial summits, the narrative must evolve. India is not just at the table; we are shaping it. The path to net zero must reflect the diversity of global realities, and it cannot afford to ignore them.

The climate crisis is shared and so must be the solutions. Equity is not optional — it is essential for legitimacy, momentum, and success.