

RICHEST INDIANS EMIT LESS THAN POOREST AMERICANS

New CSE analysis puts the lie to claims that rich Indians emit as much as their developed country counterparts

The richest 10 per cent of Indians emit no more greenhouse gases per person than the poorest 10 per cent of Americans, according to new analysis by the Centre for Science and Environment.

The CSE study looks at how per capita emissions vary within India and the US, when populations are ranked according to income level: poorest 10 per cent, richest 10 per cent, etc.

Significantly, the results refute claims that a “burgeoning middle class” in India is hiding a sizeable contribution to global warming behind the extremely low per capita emissions of India’s poor.

Instead, they underscore the reality of the situation: Industrialised countries are diverting attention from their own burgeoning emissions by falsely pointing fingers at the rich in India and other developing countries.

THE RESULTS

Chart 1 shows how per capita emissions vary in India and the US, when populations are ranked by income level.

(The four curves for each country—(a), (b), (c), and (d)—represent slightly different assumptions and methodologies; a full explanation is provided at the end of this note.)

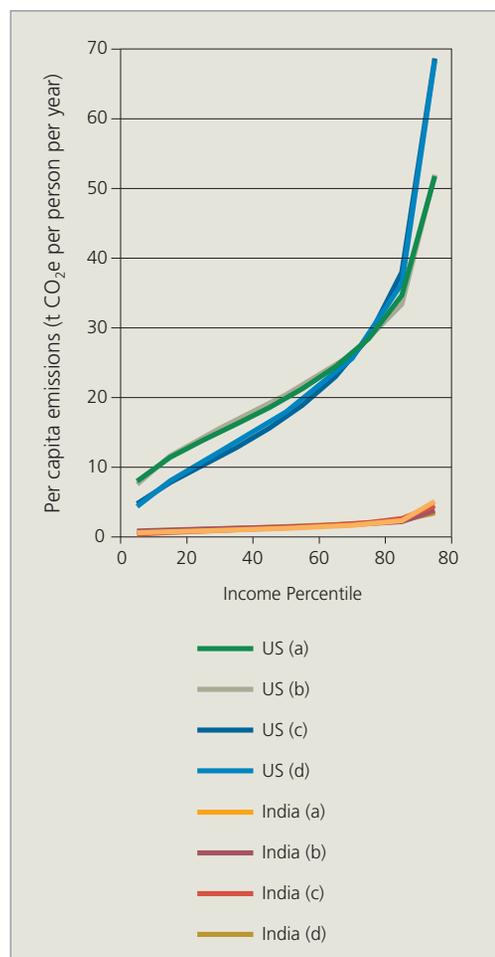
On the horizontal axis, an income percentile of 75 per cent represents a person who earns more than three quarters (75 per cent) of his compatriots, but less than the other quarter. The results show that in India, this person would be responsible for about 2 tons of GHG emissions annually; in the US, he would be responsible for about 29 tons.

Similarly, an income percentile of 25 per cent represents someone who earns

more than one quarter of her compatriots, but less than the other three quarters. In India, this person would be responsible for about 0.8-1 tons of GHG emissions every year; in the US, she would be responsible for about 10-14 tons.

The chart illustrates that this result holds true for the entire spectrum of the US and Indian populations. At every income level, per capita emissions in India are just a fraction of those in the US.

Chart 1. How do per capita emissions vary when populations are ranked by income in the US and India?





RICH IS TRULY RELATIVE

And what of India’s (relatively) rich, often accused of having emissions as high as the rich in industrialised countries?

CSE’s analysis shows that per capita emissions of the richest 10 per cent of India’s population are:

- the same or slightly less than per capita emissions of America’s poorest 10 per cent
- less than one quarter of the American average
- less than one tenth the per capita emissions of America’s richest 10 per cent.

Chart 2 takes the analysis one step further, and estimates the emissions of the (relatively) super-rich—the richest 2 per cent of the population—in India and the US. The outcome is essentially the same: per capita emissions of the richest 2 per cent in India are on par with the poorest ten per cent of the American population (see Table 1); much lower than the American average; and about 1/20 the emissions of the richest 2 per cent of Americans.

So who’s really hiding behind whom?

Chart 2. How do per capita emissions of the richest 2% in India and the US compare?

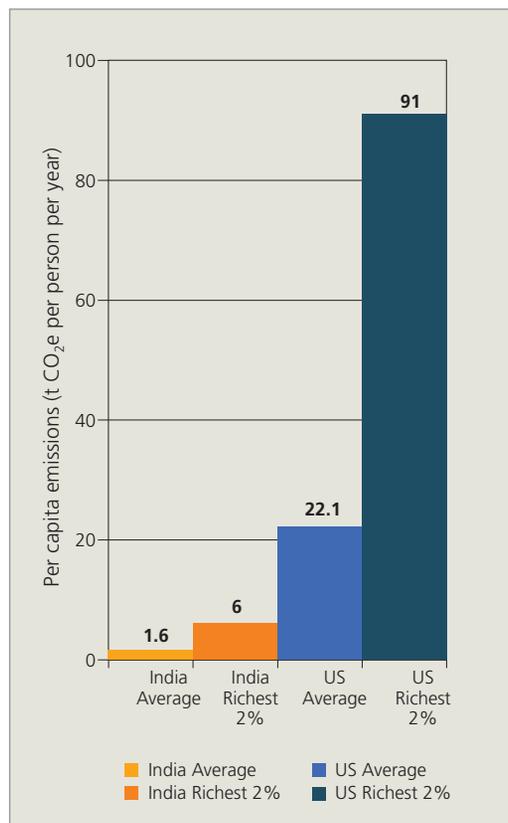


Table 1. Per capita emissions for selected income percentiles in the US and India

Countries	Per capita emissions (t CO ₂ e per person per year)			
	National average	Poorest 10 per cent of the population ^a	Richest 10 per cent of the population ^a	Richest 2 per cent of the population ^b
India	1.6	0.4 – 0.8	3.4 – 5.1	4.6 – 6.8
US	22.1	4.3 – 8.0	52 – 69	73 – 111

Notes: ^a Results from methodologies (a)(b)(c)(d); ^b Results from methodologies (a)(c) only

NOTE ON METHODOLOGY

The analysis draws on methodologies developed by Eric Kemp-Benedict and colleagues at the Stockholm Environment Institute in preparing the Greenhouse Development Rights Framework . Per capita emissions (E) are assumed to vary with income (Y) as $E \propto (Y)^e$ where e is the income elasticity of emissions. Kemp-Benedict cites work by Chakravarty et al. which suggests empirical estimates for e between 0.7 and 1.

Income distributions for India and the US were derived using one of two related methods:

- Using empirical income data from the World Bank's World Development Indicators (WDI) database (available for the 1st and 2nd deciles; 2nd, 3rd and 4th quintiles; and 9th and 10th deciles ranked by per capita income)
- By assuming a lognormal distribution of per capita income with a standard deviation based on the WDI-reported Gini coefficient, following the methodology of Kemp-Benedict.

Accordingly, four scenarios were considered:

Scenario	Elasticity	Income distribution	Scenario	Elasticity	Income distribution
(a)	0.7	Lognormal	(c)	1.0	Lognormal
(b)	0.7	Empirical	(d)	1.0	Empirical

Source: All data used are from the recent available year

Data	Source
Emissions	Climate Analysis Indicators Tool (CAIT) Version 6.0, 2009, World Resources Institute, Washington, D.C.
Population, GNI per capita (PPP)	World Development Indicators 2009, 2009, The World Bank, Washington, D.C.
Income Distribution, Gini Coefficient	World Development Indicators 2007, 2007, The World Bank, Washington, D.C.

¹Kemp-Benedict, Eric, 2009, Calculations for the Greenhouse Development Rights Calculator, Working Paper WP-US-0803, Stockholm Environment Institute, Somerville