

# Comparing the two biggest emitters: US/China

Greenpeace briefing, October 2009

	China	US	Source
<b>CO2/total primary energy supply</b>	3.08 t CO2/toe	2.47 t CO2/toe	IEA, Key World Energy Statistics 2009. Figures are for 2007.
<b>GDP per capita \$Intl 2008</b>	5 963	46 859	IMF, World Economic Outlook Database – April 2009
<b>CO2 emissions per capita</b>	4.6 t	19.1 t	IEA, Key World Energy Statistics 2009. Figures are for 2007.
<b>Income per capita (purchasing power parity) USD (2008)</b>	6,020	46,970	World Bank, 2008 <a href="http://siteresources.worldbank.org/DATASTATISTICS/Resources/GNIPC.pdf">http://siteresources.worldbank.org/DATASTATISTICS/Resources/GNIPC.pdf</a>
<b>Human Development Index</b>	0.777 (81 <sup>st</sup> place in global ranking)	0.951 (12 <sup>th</sup> place in global ranking)	UNDP, Human Development Report 2007/2008
<b>Private cars per 1000 people</b>	17	445	Chinese Government US Census Bureau
<b>Investments in green recovery</b>	Green measures as a percentage of total stimulus: 34 %	Green measures as a percentage of total stimulus: 12 %	HSBC/Financial Times. Published: March 2 2009. Last updated: August 17 2009. (Note: all measures have not yet been implemented)
<b>Fuel economy standards</b>	Now: 35.8 miles per gallon. Proposed new standard: 42.2 miles a gallon by 2015	Now: 25 miles per gallon. Proposed new standard: 35.5 miles per gallon by 2016.	New York Times, May 27, 2009. "China Is Said to Plan Strict Gas Mileage Rules"
<b>Renewables targets</b>	Share of renewable to be 10% by 2010 and 15% by 2020	No national goals, but 28 states have their own renewable targets with variable levels and time-tables, in addition to which 5 states have voluntary targets.	Department of Energy, US Energy Statistics. Last updated May 2009 <a href="http://apps1.eere.energy.gov/states/maps/renewable_portfolio_states.cfm">http://apps1.eere.energy.gov/states/maps/renewable_portfolio_states.cfm</a>

## Summary

China is often perceived as a big irresponsible polluter, but even a simple review reveals that:

- China has set national goals for renewable energy (15% by 2020) but the US has not set renewable energy targets at Federal level. Instead, 28 states have set renewable portfolio standards with variable levels and target years.
- Chinese fuel economy standards are significantly stricter than those of the US. Chinese cars have already reached the level of efficiency the US aims to achieve by 2016, under President Obama's newly established fuel economy standards.
- China has directed a bigger share of its stimulus money into green jobs and clean tech industry development.

### Energy Intensity

China's energy supply is more carbon intensive than that of the US. However, China has begun to reduce its carbon intensity, and Chinese President Hu Jintao pledged at the UN in September to reduce carbon intensity by a "notable margin" by 2020 at 2005 levels.

- Chinese energy supply creates 25% more emissions per energy unit than the US.
- China's carbon intensity per GDP is 20% higher than the US.
- From 1991 to 2002, China reduced its CO<sub>2</sub> emissions per unit of GDP twice as fast as the US. Between 2002-2006 this trend reversed, but *China still reduced its economy's carbon intensity faster than the US between 1991 and 2006*<sup>1</sup>.

### Per capita emissions

When looking at who should do what to cut greenhouse gas emissions fairly, it is important to look at the amount of emissions per person – both now and since the world recognised the climate problem in 1990.

- In 2007, CO<sub>2</sub> emissions per person in the US were almost 4 times higher than China in the energy industry sectors.
- The US has emitted 7 times more CO<sub>2</sub> emissions per person than China since 1990 (the base year for the UN climate convention).
- US citizens have 26 times more private cars per person than Chinese Citizens.

### China is a developing country. Who has the biggest capacity to act?

- The US ranks 12th in the global human development index, whereas China ranks 81st<sup>2</sup>.
- The purchasing power of a Chinese citizen's income is, on average, 12.8% of a US citizen.
- In 2008 the US had almost 8 times higher GDP per capita in international dollars, compared to China. In accumulated terms since the start of the climate negotiations, the difference would be even higher.

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<sup>1</sup> Energy Information Administration, Official Energy Statistics from the US Government. <http://www.eia.doe.gov/environment.html>  
Statistics beyond 2006 not available.

<sup>2</sup> The Human Development Index combines normalized measures of lifetime expectancy, literacy, educational attainment, and GDP per capita for countries worldwide