Global financial crisis caused downturn in fossil fuel CO2 emissions in 2009 but falls short from expectations

The 2009 economic downturn caused by the global financial crisis has translated in a smaller than expected reduction of global fossil fuel emissions. For that year, only 1.3% emissions reductions was estimated, in a stark contrast to anticipated 2.8% downturn, according to the latest figures published in *Nature Geoscience* today by the international researchers group, the Global Carbon Project (GCP).

The major reasons for this are the lower than expected decrease in Gross Domestic Product (GDP) and the slower improvement of the carbon intensity of the global economy (or fossil fuel emissions per unit of GDP). Despite this drop, the 2009 global fossil fuel emissions at 30.8 billion tons of CO2 were the second highest in human history, just below the 2008 emissions. “Emerging economies saw an uninterrupted GDP expansion (e.g. +9.1% for China) which pulled up the 2009 global GDP figure and therefore the fossil carbon emissions”, says Dr Shobhakar Dhakal, executive director of the GCP at National Institute for Environmental Studies (NIES), Japan.

The global decrease of 1.3% in 2009 hides large regional shifts where the largest decreases occurred in Japan, Europe, and North America (e.g. Japan -11.8%, USA -6.9%, UK -8.6%, Germany -7%, Russia -8.4%) while emerging economies recorded substantial increase in their total emissions (e.g. China +8%, India +6.2%, South Korea +1.4%).

“If economic growth proceeds as expected, global fossil fuel emissions are projected to increase over 3% in 2010, approaching the high emissions growth rates observed through 2000 to 2008,” says Dr. Dhakal citing the results published in *Nature Geosciences*.

In addition, CO2 emissions from Land Use Change (LUC) are revised and updated to downwards from previous estimate based on new data release on forest cover and land use by the Food and Agricultural Organization (FAO).

“Fortunately, we are seeing a real decline in CO2 emissions in the land use change sector due to reduced tropical deforestation and increased forest re-growth in temperate regions”, says Dr. Pep Canadell, executive director of GCP at CSIRO Canberra. “New FAO data release shows the lower rates of deforestation than previously assumed in tropical Asia and forest re-growth at temperate latitudes, mainly Eurasia”.

The 2009 Carbon Budget was developed through the effort of experts in widely recognized international climate research institutions and is part of the GCP annual series of the Global Carbon Budget.
Further Information

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