Radiative Forcing
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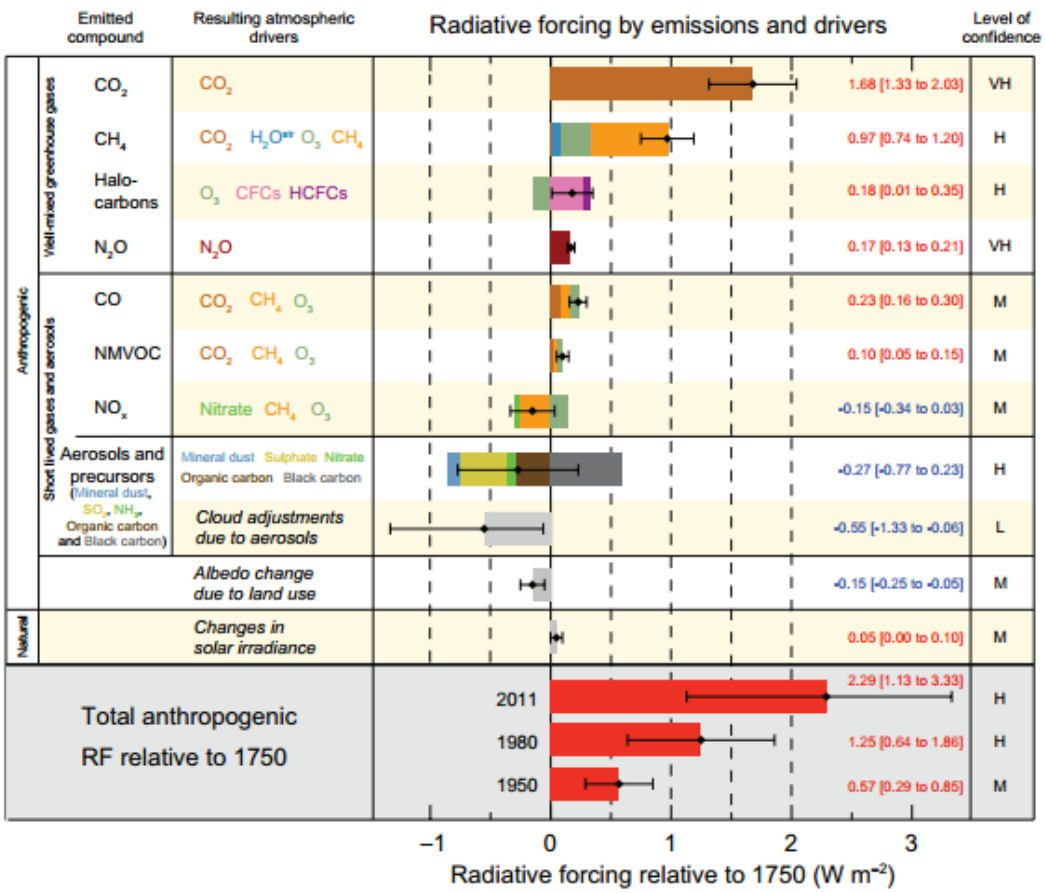
May 18, 2014

The Earth receives an average of about 1370 watts/square meter of energy from the sun every year, and, over geologic time, the Earth will emit a similar amount of radiation (if the average outgoing radiation does not equal the average incoming radiation the Earth will either warm up or cool down). "Radiative forcing" is a measure of the influence of a particular factor (e.g. greenhouse gas (GHG), aerosol, or land use change) on the net change in the Earths energy balance. It may take decades for the Earth's temperature to completely adjust to a change in radiative forcing. The table below provides a summary of the radiative forcing by emissions and drivers. Note that water vapor, which is the most important greenhouse gas, is not included as its atmospheric concentration is primarily a function of the Earth's temperature.



Natural and anthropogenic substances and processes that alter the Earth's energy budget are drivers of climate change. Radiative forcing (RF) quantifies the change in energy fluxes caused by changes in these drivers for 2011 relative to 1750.

Figure SPM.5 | Radiative forcing estimates in 2011 relative to 1750 and aggregated uncertainties for the main drivers of climate change. Values are global average radiative forcing (RF[14]), partitioned according to the emitted compounds or processes that result in a combination of drivers. The best estimates of the net radiative forcing are shown as black diamonds with corresponding uncertainty intervals; the numerical values are provided on the right of the figure, together with the confidence level in the net forcing (VH – *very high*, H – *high*, M – *medium*, L – *low*, VL – *very low*). Albedo forcing due to black carbon on snow and ice is included in the black carbon aerosol bar. Small forcings due to contrails (0.05 W m^{-2}, including contrail induced cirrus), and HFCs, PFCs and SF_6 (total 0.03 W m^{-2}) are not shown. Concentration-based RFs for gases can be obtained by summing the like-coloured bars. Volcanic forcing is not included as its episodic nature makes is difficult to compare to other forcing mechanisms. Total anthropogenic radiative forcing is provided for three different years relative to 1750. For further technical details, including uncertainty ranges associated with individual components and processes, see the Technical Summary Supplementary Material {8.5; Figures 8.14–8.18; Figures TS.6 and TS.7}

http://www.climatechange2013.org/images/report/WG1AR5_SPM_FINAL.pdf (IPCC)