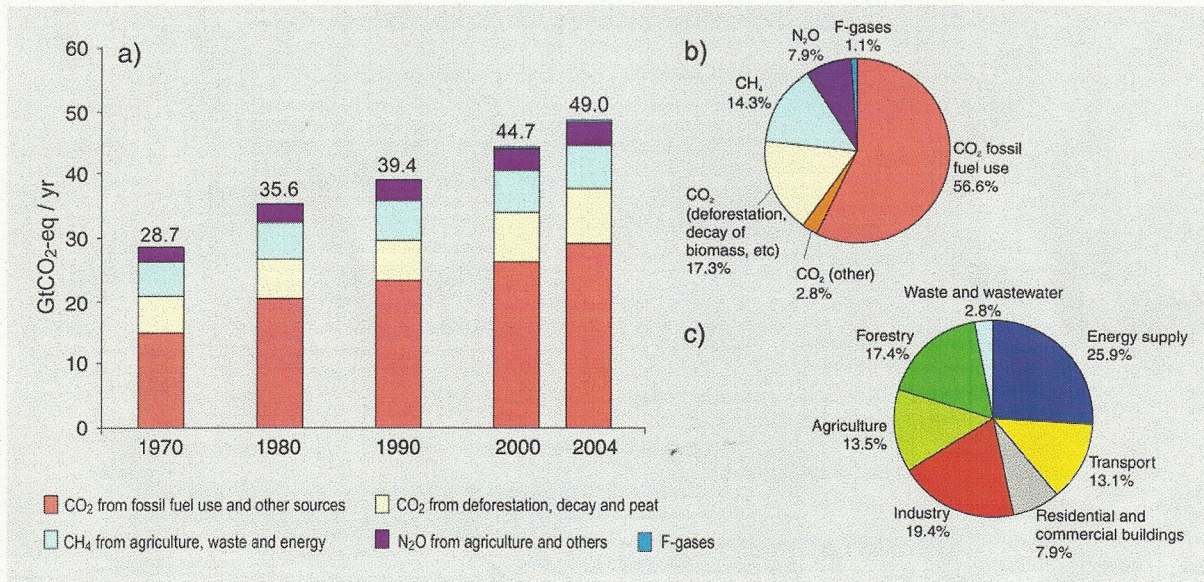


Agriculture and Climate Change

Long-lived Green House Gases (GHGs) negatively affect climate by additional radiative forcing. The agriculture industry produces between 13 – 35% of the total GHG emissions.



Source: IPCC

- (a) Global annual emissions of anthropogenic GHGs from 1970 to 2004.5
- (b) Share of different anthropogenic GHGs in total emissions in 2004 in terms of CO₂-eq.
- (c) Share of different sectors in total anthropogenic GHG emissions in 2004 in terms of CO₂-eq. (Forestry includes deforestation.)

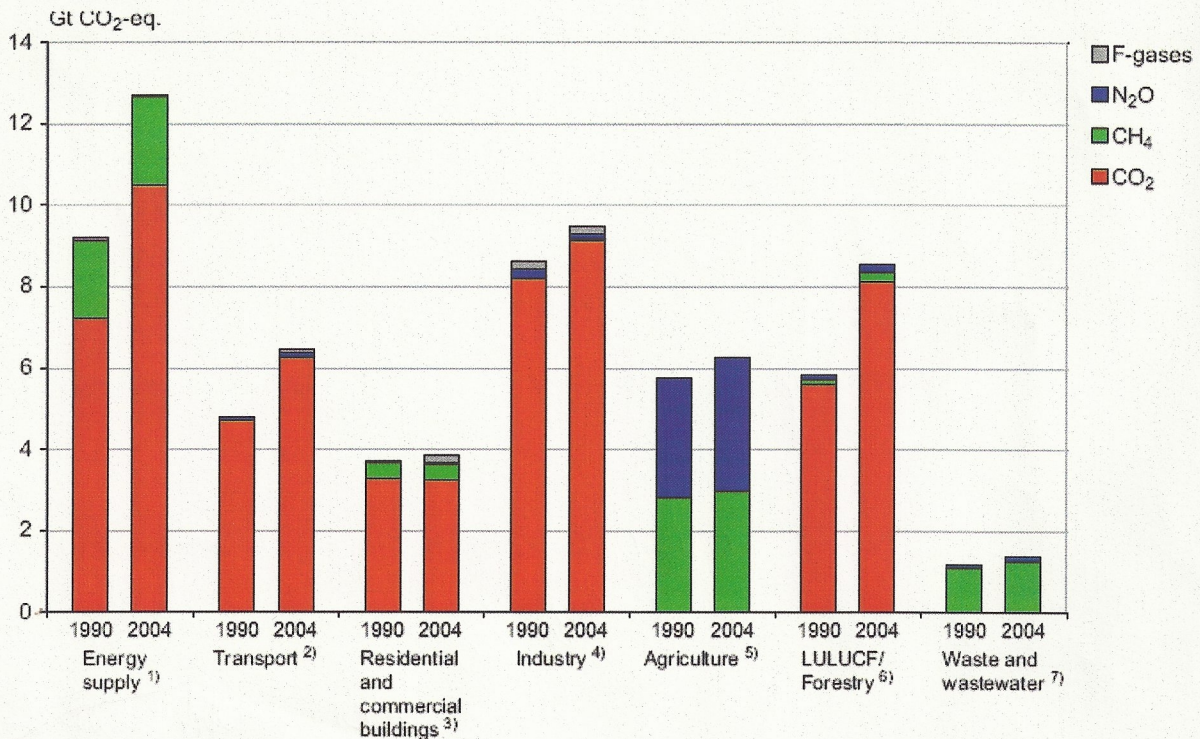
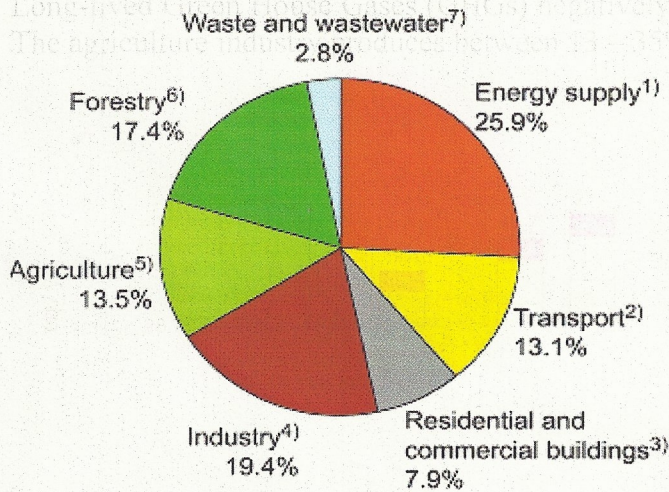


Figure 1.3a: GHG emissions by sector in 1990 and 2004.

Source: Adapted from Olivier et al., 2005, 2006.

Source: IPCC adapted from Olivier et al., 2005, 2006.

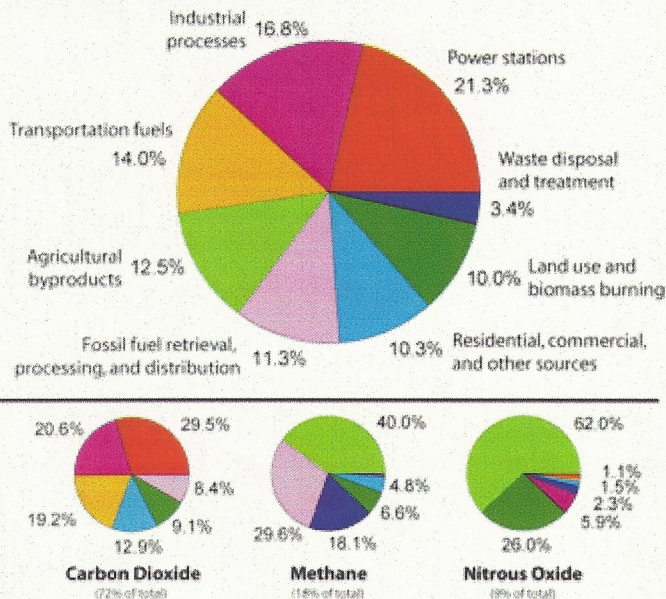
GHG Emissions by Sector (2004)



Source: IPCC adapted from Olivier et al., 2005, 2006.

1) Excluding refineries, coke ovens which are included in industry. 2) Including international transport (bunkers), excluding fisheries; excluding off-road agricultural and forestry vehicles and machinery. 3) Including traditional biomass use. Emissions reported in Chapter include the sector's share in emissions caused by centralized electricity generation so that any mitigation achievements in the sector resulting from lower electricity use are credited to the sector. 4) Including refineries and coke ovens. Emissions reported in Chapter 7 include the sector's share in missions caused by centralized electricity generation so that any mitigation achievements in the sector resulting from lower electricity use are credited to the sector. 5) Including agricultural waste burning and savannah burning (non-CO₂). O₂ emissions and/or removals from agricultural soils are not estimated in this database. 6) Data include CO₂ emissions from deforestation, CO₂ emissions from decay (decomposition) of aboveground biomass that remains after logging and deforestation and CO₂ from peat fires and decay of drained peat soils. Chapter 9 reports emissions from deforestation only. 7) Includes landfill CH₄, wastewater CH₄ and N₂O, and CO₂ from waste incineration (fossil carbon only).

Annual Greenhouse Gas Emissions by Sector



Source: Robert A. Rohde adapted from Emission Database for Global Atmospheric Research, 2000