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First WMO Greenhouse Gas Bulletin: **GREENHOUSE GAS CONCENTRATIONS REACH NEW HIGHS IN 2004**

GENEVA, 14 MARCH 2006 (WMO) – Globally averaged concentrations of carbon dioxide (CO₂), methane (CH₄) and nitrous oxide (N₂O) in the planet's atmosphere reached their highest ever-recorded levels in 2004 according to the World Meteorological Organization's (WMO) first annual Greenhouse Gas Bulletin published today. CO₂ was recorded at 377.1 parts per million (ppm), CH₄ at 1783 parts per billion (ppb), and N₂O at 318.6 ppb. These values supersede those of pre-industrial times by 35%, 155% and 18% respectively, and increased over the previous decade by 19ppm, 37ppb and 8ppb in absolute amounts.

WMO Secretary-General, Mr Michel Jarraud, said: "Global observations coordinated by WMO show that levels of carbon dioxide, the most abundant greenhouse gas in the atmosphere, continue to increase steadily and show no signs of levelling off."

The 35% rise in carbon dioxide since the late 1700s has largely been generated by emissions from the combustion of fossil fuels. In 2004, CO₂ increased by 1.8 ppm or 0.47% when compared with the previous year.

In contrast, atmospheric levels of methane have shown signs of reaching a plateau with virtually no rise in 2004 and changing by less than 5 ppb per year since 1999. Human activity such as fossil fuel exploitation, rice agriculture, biomass burning, landfills and ruminant farm animals account for some 60% of atmospheric CH₄, with natural processes including those produced by wetlands and termites responsible for the remaining 40%.

Nitrous oxide in the atmosphere has been steadily rising by about 0.8 ppb per year since 1988. Around one third of N₂O discharged into the air is a result of human activities such as fuel combustion, biomass burning, fertilizer use and some industrial processes.

Accurate observations from some 44 WMO Members are archived and distributed by the World Data Centre for Greenhouse Gases (WDCGG), located at the Japan Meteorological Agency. WMO prepares the Bulletin in cooperation with WDCGG and the Global Atmosphere Watch Scientific Advisory Group for Greenhouse Gases with the assistance of the National Oceanic and Atmospheric Administration's Earth System Research Laboratory. WMO plans to release the 2005 bulletin in November 2006.

WMO is the United Nations' authoritative voice on weather, climate and water

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