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Rising Levels of Greenhouse Gases: Implication for Global Warming in Anambra State South Eastern Nigeria

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Abstract : About 34% of the solar radiant energy reaching the earth is immediately reflected back to space as incoming radiation by clouds, chemicals, dust in the atmosphere and by the earth's surface. Most of the remaining 66% warms the atmosphere and land. Most of the incoming solar radiation not reflect away is degraded into low-quality heat and flows into space. The rate at which this energy returns to space as low-quality heat is affected by the presence of molecules of greenhouse gases. Gaseous emission was measured with the aid of Growen gas Analyzer with a digital readout. Total measurements of eight parameters of twelve selected sample locations taken at two different seasons within two months were made. The ambient air quality investigation in Anambra State has shown the overall mean concentrations of gaseous emission at twelve (12) locations. The mean gaseous emissions showed (NO2=0.66ppm, SO2=0.30ppm, CO=43.93ppm, H2S=2.17ppm, CH4=1.27ppm, CFC=1.59ppb, CO2=316.33ppm, N2O=302.67ppb and O3=0.37ppm). These values do not conform to the National Ambient Air Quality Standard (NAAQS) and thus contribute significantly to the global warming. Because some of these gaseous emissions (SO2, NO2) are oxidizing agents, they act as irritants that damage delicate tissues in the eyes and respiratory passages. These can impair lung function and trigger cardiovascular problems as the heart tries to compensate for lack of Oxygen by pumping faster and harder. The major sources of air pollution are transportation, industrial processes, stationary fuel combustion and solid waste disposal, thus much is yet to be done in a developing country like Nigeria. Air pollution control using pollution-control equipment to reduce the major conventional pollutants, relocating people who live very close to dumpsites, processing and treatment of gases to produce electricity, heat, fuel and various chemical components should be encouraged.

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