FURTHER STUDIES ON THE CURRENT CLIMATE CHANGE IN TAIWAN AND ITS IMPACT ON AIR POLLUTION POTENTIAL

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The diffusion of pollutant and the air pollution potential are highly influenced by the local climate situations. We have investigated the impact of the distribution of the air pollution potential in Taiwan area due to climate change. As a first step, we use a set of standard air pollution emission inventory and Texas Climate logical Model (TCM) to test the air pollution potential distribution due to different climate situations. Current trend of the climate change during the last decade (1990~2003) and its influence on air pollution potential are studied. During the last decade, central east and south regions show trend of improving air pollution potential, with yearly rate of decreasing concentration of 3.05% 2.15% and 0.52% respectively. Meanwhile, a reverse trend is find in north region, with increasing rates of 5.24%. The trend of the variations of principle meteorological factors and their the relationship with the influence of the air pollution potential are discussed. Finally, the seasonal variation of the air pollution potential and its decadal trend is discussed.