

Oke (1986) observed “*very few studies make comparison of urban-rural vapour pressure or density values*”. This observation is particularly true of studies in tropical area. Budding from this situation of inadequacy of investigation is the scientific uncertainty about the true nature of the effect of urbanization on atmospheric vapour content in general. In the light of this situation, a concurrent analysis of the day-time effect of urbanization on both relative humidity and vapour pressure was carried out. A set of data, collected by the Nigerian Department of Meteorology, which covered 730 days (in 1985 and 1986) at two urban stations and a rural surrogate-station was used. The study was limited to day-time because of non-availability of adequate nocturnal data.

Simple frequency analysis of the urban-rural dichotomy was carried out. It was discovered that urbanization had a notable effect on both relative humidity and vapour pressure in the afternoon and during the dry season, as both parameters attenuated considerably during these periods. Of special note was the fact that both measures of humidity were affected by urbanization in the same manner. However, the effect of urbanization on relative humidity was greater.