



Assessment of temporal variation in ground-level ozone at Nairobi GAW station, Kenya

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ASSESSMENT OF TEMPORAL VARIATION IN GROUND-LEVEL OZONE AT NAIROBI GAW STATION, KENYA.

This study investigates temporal variation of ground-level Ozone concentration at Nairobi GAW (Global Atmosphere Watch) Station in Kenya, using the data set from SHADOZ (Southern Hemisphere Additional OZonesondes) and Meteorological data from Kenya Meteorological Department, during 2012 to 2018 period. We found a typical diurnal cycle with the low amplitude throughout the year, which may be attributed to its low production mostly by low daily maxima temperatures (less than 27 [U+2103]) with little seasonal variation. Ozone increases only slightly (by average 6 ppbv) during the dry season (July - October) partly due to the lower temperatures than wet season. The ozone showed overall decreasing trends in the entire period. However, ozone levels were greatly enhanced in 2016 and 2017 suddenly. This ozone enhancement will be discussed in detail at the meeting with additional meteorological and chemical characteristics of this period.