

## Temporal and spatial variations of the atmospheric dust loading throughout West Africa over the last thirty years

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**Abstract.** The dust haze conditions, typical of the African atmosphere south of the Sahara, are a result of wind-generated dust from arid lands. The magnitude of the dust haze is evaluated for the 30-year period beginning in 1957 by calculating the number of occurrences where the observed visibility was reduced below threshold values of 10 km and 5 km. The frequency of low visibility was several times greater for the 1977-1986 period than for the 1957-1966 period. Large decreases in visibility are observed after the severe droughts of 1972-1973 and 1982-1984. Contrasting regional differences of the dustiness evolution are noticed. These differences are closely related to the differences in the regional rainfall evolution. The increase in dustiness is believed to arise from dust produced in new desertic areas which result from rainfall shortages along the southern border of the Sahara.

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