

Monitoring and forecasting Dust Haze over West Africa using satellite imageries and Numerical Weather Prediction output

A.A. Abdoul Aziz Abebe

ABSTRACT

Dust Haze occurrence over the sub-Saharan Africa is an annual phenomena, which has attracted quite a lot of attention from both forecasters and scientists. Between november and march, observations show that large dust plumes are transported from both the Sahara and Sahel towards West African Countries and accross the Atlantic Ocean. Predicting Dust haze generation should be an important application of meteorology to development in this area both for economic and social aspects.

The main objective of the present study is to develop methodologies for better interpretation and use of NWP and Satellite products in forecasting Dust Haze generated by the predominant mechanism associated with pressure gradient tendency; improve knowledge and techniques required to exploit potential predictability of Dust Haze;verification of weather forecasts.

One should however keep in mind that atmospheric soundings are needed when other generation mechanisms are concerned.