

Monitoring Mongolian Plateau dust outbreak using Meteorological Satellite data.

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The vast expanse of the Gobi desert across the Mongolian plateau experiences frequent dust storms. Dust storms are seasonal meteorological phenomena; the spring months of April and May are those with the greatest dust storm activity. It is then that average wind speeds reach a maximum and the snow cover is receding.

In this case, to understand desert dust outbreak from MODIS and geostationary meteorological satellite Himawari-8 data, we compared MODIS and geostationary meteorological satellite Himawari-8 dust index for more appropriate dust detection than conventional way of Brightness Temperature Difference (BTD) and Normalized Dust Difference Index (NDDI). Dust indices such as Brightness Temperature Difference (BTD) (Ackerman, 1997) and Normalized Difference Dust Index (NDDI) (Qu, 2006) are used for analyzing dust intensity.

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