Analysis of the Impact of Saharan Dust in the Rural Areas of Brezovica and the Concentration of PM10, PM2.5, NO2, O3, SO2, and CO

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Abstract: Brezovica, a well-known winter tourist destination in Kosovo, is the subject of this study. The skiing area is located on the slopes of the Sharri National Park, encompassing a territory of 39,000 hectares with alpine mountainous terrain and forests rich in flora and fauna. Although known for its clean air, warm African air masses occasionally bring Saharan dust, particularly during the spring and summer seasons.

This study analyzes standard monitoring data to assess pollution levels in an area devoid of anthropogenic factors that could degrade air quality. Parameters measured during the study include SO2, CO, NO2, O3, PM10, and PM2.5, expressed in µg/m³, and CO in mg/m³, based on the 2008/50/EC directive for ambient air quality and Law No. 08/L-025 for air pollution protection.

The results indicate an increase in PM10 and PM2.5 levels during periods when warm air masses originating from Africa or the Sahara are present.

Keywords: Air quality, measurement, Brezovica, winter tourism, pollution analysis, Saharan dust, air pollution, monitoring data, anthropogenic factors, PM10, PM2.5