

Air pollution concentrations in the Czech Republic compared to standard limits

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Abstract : Possible negative effects of these air pollutants can be assessed using the legal standards and critical levels. We analysed 7 years of daily measurements of sulphur dioxide (SO₂), nitrogen oxides (NO_x), and particulate matter (PM₁₀) and ozone (O₃) at the forest ecosystem research site in the region of Bílý Kríž. The annual average for the studied period was 24.0 µg m⁻³ for PM₁₀, 9.4 µg m⁻³ for NO_x and 12.0 µg m⁻³ for SO₂. The daily values exceeded 50 µg m⁻³ for PM₁₀, 125 µg m⁻³ for SO₂, 65 µg m⁻³ for O₃ on approximately 5.6, 0.0 and 34.3% of cases, respectively. We found a decrease in SO₂, NO_x and PM₁₀, but some days and years registered the values higher than the standard limits. Most of the observed decrease for sulphur dioxide is due to the reduction of SO₂ emission in the Czech Republic. For O₃, we observed a significant increase. No trend was identified for NO_x.