

## ABSTRACT

The development of ground-level ozone concentrations is currently a hotly debated topic. Ozone itself is highly toxic and has strong oxidizing effects. Ozone has a negative impact on human health, but also on vegetation. In addition, ozone is one of the most important greenhouse gases causing the greenhouse effect. The Council of Europe decided to limit its increasing tendency by the release of Directive 2002/3/EC. Limits that are set in this Directive are binding for all Member States without exception and breach of these limits is enforceable by law. However, as a result of increased anthropogenic activities, particularly increased consumption of fossil fuels and the development of industrialization, those limits are very often breached. Especially in summer when solar radiation is most intense. This suggests that the highest ozone concentrations are in southern Europe. North Europe has problems with intercontinental transport of ozone. Concentration of ozone is dependent on many factors - the weather conditions, the geography but also the impact from human activity. This paper describes the development of ground-level ozone concentrations in various regions in Europe and North America. In writing this work, I come out mainly from foreign studies that address this topic.

Keywords: ozone, concentration, trends