

## Topic 2: Combating cross-border air pollution as a consequence of industrial activity and wildfires

Cross-border air pollution occurs when pollutants released in one country are transported through the atmosphere and negatively affect air quality in other states. This issue has become increasingly important as industrial emissions remain high in many regions and climate change contributes to more frequent and intense wildfires.

Pollutants such as **fine particulate matter (PM2.5)**, **nitrogen oxides (NO<sub>x</sub>)**, **ozone (O<sub>3</sub>)**, **methane (CH<sub>4</sub>)** and **black carbon** pose serious risks to human health, ecosystems, and the global climate.

The international community has long recognized that air pollution does not respect national borders. Early concerns emerged in the late twentieth century, particularly in relation to acid rain and industrial emissions in Europe and North America. These concerns led to regional cooperation frameworks, such as the **Convention on Long-Range Transboundary Air Pollution (CLRTAP)**. However, global action remains uneven, and many regions lack effective mechanisms to address pollution that crosses borders.

Industrial activity continues to be a major source of transboundary air pollution. Power plants, factories, and transport systems emit pollutants that can travel long distances, affecting neighboring countries that may have little influence over emission sources. At the same time, wildfires have become a growing contributor to cross-border pollution. Rising temperatures, prolonged droughts, and land degradation - linked to climate change - have increased wildfire risks, releasing large amounts of smoke and **short-lived climate pollutants (SLCP)** into the atmosphere.

Although several international and regional initiatives address air quality and climate change, significant challenges remain. Current frameworks often rely on voluntary cooperation, and enforcement mechanisms are limited. Differences in economic development, access to clean technologies, and national priorities complicate coordinated responses. There is also ongoing debate over responsibility, particularly when pollution originating in one country causes environmental or health damage in another.

This topic calls for discussion on strengthening international cooperation to reduce transboundary air pollution while respecting national sovereignty and development needs. Key areas of focus include improving emissions standards, enhancing

monitoring and data-sharing, supporting wildfire prevention and response, and integrating air quality measures into broader climate mitigation and adaptation strategies. Addressing cross-border air pollution is essential not only for protecting public health but also for achieving long-term climate goals.

**Useful links and sources:**

[UNECE - CLRTAP](#)

[WHO - Air Quality and Transboundary Cooperation](#)

[Clean Air Fund - Wildfires, climate change and air pollution: a vicious cycle](#)