

In mid 2000 NARSTO published its first Assessment of Tropospheric Ozone. This effort was targeted toward a variety of end users, including policy analysts, decision makers, the scientific community, and the interested public, and addresses the following policy and science questions:

Policy question 1.

What changes have occurred in tropospheric ozone science over the last decade that might alter (or confirm) the course of current ozone air quality management strategies?

Policy question 2.

How manageable is the ozone problem for a given area? *[What portion of the problem is local and what portion is transported in? What portion of the problem is essentially irreducible and what portion is potentially controllable?]*

Policy question 3.

Are existing emissions control measures helping to bring the ozone problem under control? *[For a given area, if these control measures are continued, will they lead to ozone attainment?]*

Policy question 4.

What are the relationships between the on-going efforts to manage tropospheric ozone pollution and the scientific understanding of the issues?

Policy question 5.

What are alternate approaches for reducing current and future high ozone concentrations on urban (<200 km) and regional (200-2000 km) scales?

Policy question 6.

How can we best track and assess the progress and effectiveness of our ozone management efforts?

Policy question 7.

Will our efforts to manage ozone help or hinder efforts to mitigate other environmental problems, such as acid rain, fine particles, and global climate change, and vice versa?

Science question 1. (Addresses Policy question 1.)

What are the most significant research developments in tropospheric ozone science over the last decade?

Science question 2. (Addresses Policy questions 2,3,4,5.)

How does ozone accumulation on urban and regional scales depend on the source dimension (scale) and location? How does it depend on the relative contribution from local and regional sources?

Science question 3. (Addresses Policy questions 3,4,6.)

What are the most recent assessments of the relative contributions of VOCs, NO_x and CO to ozone accumulation on urban and regional scales in North America?

Science question 4. (*Addresses Policy questions 2,3,4,5.*)

What are the strengths and limitations of the current scientific methods and tools in assessing tropospheric ozone issues and developing emissions management strategies?

Science question 5. (*Addresses Policy questions 3,5,6.*)

What approaches are required to determine historic concentration trends of ozone and its precursors on urban and regional scales? What is required to demonstrate the effectiveness of emissions control strategies over time?

Science question 6. (*Addresses Policy question 7*)

What are the relationships between the control strategies designed to manage tropospheric ozone and those designed to manage other pollutant regimes of interest?