

# Manfredonia Arsenic release

EPSC Learning Sheet December 2025



## What Happened:

At a petrochemical plant in 1976, an ammonium column exploded, releasing 12 tons of Arsenic Trioxide dust and contaminating 15 km<sup>2</sup> of soil and water. Despite human and animal fatalities, the incident was initially downplayed. Eventually, human diseases like skin and lung cancer were diagnosed in local communities.



Only in 1989 the Manfredonia region was classified as “high environmental risk” under Italian law.

## Aspects:

- Natural gas contains traces of  $\text{AsH}_3$  forming  $\text{As}_2\text{O}_3$  dust that collected over the years. Its potential hazard was not well defined, nor were barriers installed, like regular cleaning.
- A court trial 1996-2007 investigated the legal responsibility of plant managers and the consequences for inhabitants.
- Manfredonia economy suffered severely as food and fish from the area were banned. The Chemical plant was hated by society as it took away their health, their economy and their food. The plant was closed in 1990, but the environmental pollution largely remains.
- Involve near by communities on high hazard scenarios and prepare them for emergencies.

**Act appropriate on chemical releases**