Air Quality and Health

Air pollution is now the largest environmental health risk to the pan-European population.

Air pollution is a local, pan-European and hemispheric issue. Air pollutants released in one country may be transported in the atmosphere, contributing to or resulting in poor air quality elsewhere.

Particulate matter, nitrogen dioxide and ground-level ozone, are now generally recognised as the three pollutants that most significantly affect human health.

Sources of special concern: motorised road transport, household fuel combustion, agriculture and industrial coal burning.

Ozone pollution is associated with about 21,000 premature deaths per year in the pan-European region.

Some 40 million people in the 115 largest cities in the European Union (EU) are exposed to air exceeding WHO air quality guideline values for at least one pollutant.

Children living near roads with heavy-duty vehicle traffic have twice the risk of respiratory problems as those living near less congested streets.

Number of deaths attributable to ambient air pollution in 2012 (men and women):

- Total: 392,000
- EU-27: 164,500
- Eastern Europe: 227,500

The annual economic cost of premature deaths from air pollution across the countries of the WHO European Region stood at US$ 1.431 trillion. The overall annual economic cost of health impacts and mortality from air pollution, including estimates for morbidity costs, stood at US$ 1.575 trillion.

Bosnia and Herzegovina national air quality monitoring network

3,538 people died in Bosnia and Herzegovina in 2012 from ambient air pollution. 1,623 were women and 1,915 were men.

On 24th January 2016 in Sarajevo, coarse particle concentrations (PM10) spiked to 750 micrograms/m³ - this is fifteen times greater than the WHO guideline value - posing a significant health risk to residents.

Bosnia and Herzegovina is losing 21.5% of its GDP (US$ 1.288 billion) due to heavy air pollution.

Air quality monitoring stations:
- Sarajevo
- Zenica
- Tuzla
- Mostar
- Bihać

What can be done?

FOR INDUSTRY: Clean technologies that reduce industrial smokestack emissions; improved management of urban and agricultural waste, including capture of methane gas emitted from waste sites as an alternative to incineration (for use as biogas).

FOR TRANSPORT: Shifting to clean modes of power generation; prioritising rapid urban transit, walking and cycling networks in cities as well as rail interurban freight and passenger travel; shifting to cleaner heavy duty diesel vehicles and low emissions vehicles and fuels, including fuels with reduced sulfur content.

FOR URBAN PLANNING: Improving the energy efficiency of buildings and making cities more compact, and thus energy efficient.

FOR POWER GENERATION: Increased use of low-emissions fuels and renewable combustion-free power sources (solar, wind or hydropower); co-generation of heat and power; and distributed energy generation (mini-grids and rooftop solar power generation).

FOR MUNICIPAL AND AGRICULTURAL WASTE MANAGEMENT: Strategies for waste reduction, waste separation, recycling and reuse or waste reprocessing as well as improved methods of biological waste management such as anaerobic waste digestion to produce biogas, are feasible, low cost alternatives to the open incineration of solid waste. Where incineration is unavoidable, then combustion technology with strict emission controls are critical.

The Batumi Action for Cleaner Air was endorsed in June 2016 by the Ministers of Environment from the pan-European region, presenting a number of actions for fighting air pollution and improving air quality across the region through establishing systematic, comparable and transparent monitoring activities and emission inventories; establishing national action programmes that reduce air pollution; improving public awareness; building capacity and providing technical support; and policy.