

Air Pollution in Tuzla and Lukavac

CITY FACTSHEET



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The Problem

For years, the air quality in Tuzla and Lukavac has been poor and has not improved. One of the major threats to the health of citizens in this area comes from the high concentration of fine particulate matter (the so-called PM2.5). PM2.5 are particles formed by the combustion of materials; PM 2.5 is the pollutant with the highest concern for health protection.

Fine particulate matter (PM2.5) in the air that we breathe can enter into the bloodstream and harm our health in many ways.

Scientific studies show that air pollution causes premature death, heart and lung disease, as well as stroke, and a range of other **health impacts**.

In the Tuzla region, the main sources of PM2.5 are the Tuzla Thermal Power Plant which burns over 3.3 million tons of coal per year, and other old coal-fired industrial plants. The Tuzla Thermal Power Plant is one of the ten **largest polluters** in Europe: it emits 51 644 tons of sulphur dioxide (SO₂) per year, and as the largest producer of PM2.5 in Bosnia and Herzegovina, 896 tons of PM2.5 annually, making it the largest source of PM2.5 in Bosnia and Herzegovina. Air pollution released from the coal plant knows no borders and travels beyond Bosnia and Herzegovina. The estimated health costs caused by the existence and operation of the Tuzla Plant alone amount to between EUR 71 to 205 million annually for inhabitants of the Western Balkans and to between EUR 196 to 566 million for inhabitants of

Europe. With regards to industrial pollution, the two urban units of Tuzla and Lukavac need to be considered a pair as they are located in the same basin, while centres of Tuzla and Lukavac share the same distance from Tuzla Thermal Power Plant.

In addition to industry that harms citizens' health, old cars and domestic furnaces fuelled by fossil fuels are also main contributors to air pollution in this region.

As in many other cities of Bosnia and Herzegovina, the streets of Tuzla and Lukavac are dominated by old exhausted diesel vehicles which worsen the quality of air and are extremely harmful to health.

The World Health Organization (WHO) has **declared** that Bosnia and Herzegovina has the second highest mortality rate (per 100.000 population) from air pollution in the world, after North Korea. WHO voiced concern over the large number of premature deaths caused by harmful effects of polluted air to the health of Bosnia and Herzegovina population.

In 2012 alone, more than 3,500 people in Bosnia and Herzegovina died prematurely due to harmful **effects** of ambient air pollution on their health. Though Bosnia and Herzegovina laws set air quality standards for certain pollutants in the air, these laws are poorly applied, meaning the air is often unhealthy.



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Air Quality Monitoring

The air quality in the Tuzla Canton is monitored with five measuring stations, of which only one was working throughout the whole year 2016. Three monitoring stations were working less than 72 days a year (20% of the time).

Inhabitants of Lukavac breathed overly-polluted air more than 8 months during 2016. The annual average of particulate pollution (PM_{2.5}) was 62 µg/m³. This is six times higher than WHO recommends.

It is important to note that the European Union set the limit of 25 µg/m³ as the maximum annual average for PM 2.5, while the World Health Organization (WHO) recommends that PM_{2.5} should not exceed 10 µg/m³ as annual average.

In addition, the World Health Organization recognised that there is no safe level for this type of pollution without health impacts. The World Health Organization took into consideration hundreds of studies on air pollution and issued clear recommendations that should be taken into account in drafting the national laws.



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The Solution

What needs to be done?

- Establish limit values for PM10 and PM2.5 in accordance with recommendations of the World Health Organization.
- Establish a fully functioning monitoring system, with continuous monitoring of PM10 and PM2.5 at all measuring stations in Bosnia and Herzegovina throughout the whole year with publicly available data.
- Clean energy transition towards the production of energy from renewable clean sources and promotion of energy savings. The first logical step in this direction is to end the construction of new coal-fired power plants. The Government and other government structures in Bosnia and Herzegovina should prioritise energy efficiency and renewable energy projects.
- Measures to reduce air pollution from all contributing sectors should be initiated. This includes the installation of better technical equipment and filters in coal power plants and industrial installations; the promotion of renewable energy systems for household heating and transitioning away from coal use; promoting walking and cycling in urban transport and strict emissions standards for vehicles; and last but not least firmly implementing the “polluter pays” principle with sanctions for those not sticking to the rules.

• Action

Health professionals should become engaged on air quality including on policy changes, inform the public on health risks due to air pollution and alert their patients when air pollution exceeds WHO guidelines.



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Unmask My City is global initiative led by health professionals in 10 cities around the world that currently face major air pollution challenges.

Doctors, nurses, public health practitioners and allied healthcare professionals dedicated to improving the health of their patients are calling for practical solutions and tangible city level policy changes to cut pollution levels to meet WHO guidelines and drive a clear, downward global trend in air pollution by 2030.



Global Unmask My City partners



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