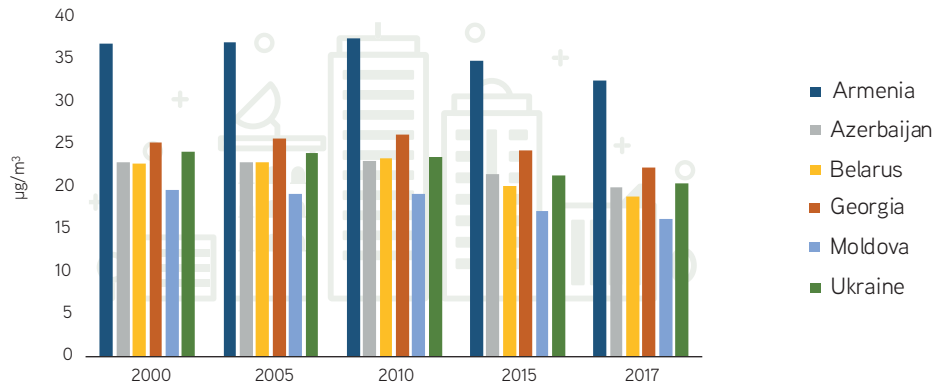


## International comparison

Exposure calculated by weighting mean annual concentrations of  $PM_{2.5}$  by population in both urban and rural areas



Notes: World Bank Databank data on exposure to ambient air pollution are derived from estimates of annual concentrations of very fine particulates produced by the Global Burden of Disease study, an international scientific effort led by the Institute for Health Metrics and Evaluation at the University of Washington. Estimates of annual concentrations are generated by combining data from atmospheric chemistry transport models, satellite observations of aerosols in the atmosphere and ground-level monitoring of particulates. Exposure to concentrations of  $PM_{2.5}$  in both urban and rural areas is weighted by population and is aggregated at the national level. Source: World Bank Databank, NEA.GOV.GE

## List of relevant websites

- Vienna Convention for the Protection of the Ozone Layer and Montreal Protocol on Substances that Deplete Ozone (1995): <http://ozone.unep.org/reporting>
- Stockholm Convention on Persistent Organic Pollutants (2006): <http://chm.pops.int/Countries/Reporting/NationalReports/tabid/3668/Default.aspx>
- UNECE Convention on Long-range Transboundary Air Pollution (1999) and EMEP Protocol (2012): [http://ceip.at/ms/ceip\\_home1/ceip\\_home/status\\_reporting/](http://ceip.at/ms/ceip_home1/ceip_home/status_reporting/)
- The World Bank DataBank. Environment Social and Governance (ESG) Data: [https://databank.worldbank.org/source/environment-social-and-governance-\(esg\)-data](https://databank.worldbank.org/source/environment-social-and-governance-(esg)-data)
- Environmental strategy for the years 2014-2023: <http://green.gov.md/pageview.php?l=en&idc=41&t=/Regulatory-framework/Environmental-Strategy&>
- Statistical databank Moldova: <https://statbank.statistica.md/pxweb/pxweb/en/10%20Mediul%20inconjurator/?rxid=b2ff27d7-0b96-43c9-934b-42e1a2a9a774>
- ENI SEIS website: <https://eni-seis.eionet.europa.eu/east/countries/moldova>

## List of relevant contacts



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European Environment Agency



photo: Rus/reso0/shutterstock.com, graphic: www.123rf.com

# Air protection in Moldova



## State and trends in air protection in Moldova

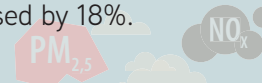
On average, the **transport sector** accounts for **93.7%** of the total volume of harmful substances emitted into the air.



From 2001 to 2018, the volume of pollutants introduced into the atmosphere by **stationary pollution** sources **increased** from 14.5 kt (2001) to 15.2 kt (2018).



In 2018 in comparison with 2001, **NO<sub>x</sub>** emissions decreased by circa 32%, **SO<sub>2</sub>** emissions decreased by circa 72%, **PM** emissions decreased by 27% while **CO** emissions increased by 18%.



**Air pollution** has significant impact on life expectancy, because of its long-term health effects, including lung and heart disease.



## Air protection policy framework

### International level

Convention on Long Range Transboundary Air Pollution (Geneva, 1979)

Protocol on Persistent Organic Pollutants (June 24, 1998, Aarhus)

Protocol on heavy metals (Aarhus, June 24, 1998)

Protocol on the long-term financing of the Cooperation Program for the monitoring and evaluation of long-distance transport of atmospheric pollutants in Europe (EMEP), adopted in Geneva on 28 September 1984

Protocol on combating acidification, eutrophication and ozone at ground level (Gothenburg, 30 November 1999)

Vienna Convention for the Protection of the Ozone Layer and Montreal Protocol on Substances that Deplete Ozone

### National level

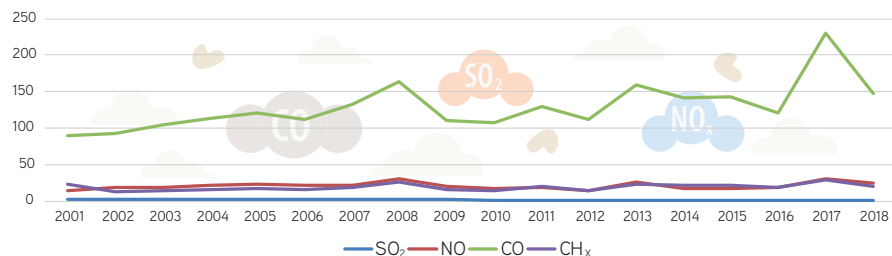
Law no 1515/1993 on environmental protection

Law no 1422/1992 on air protection

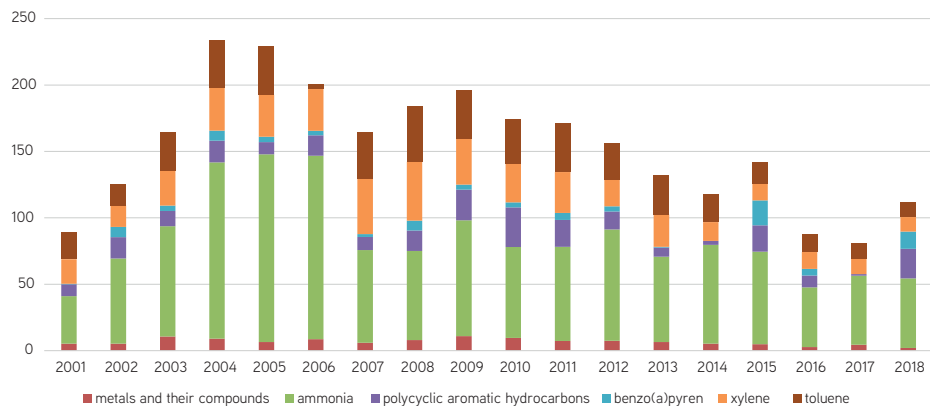
Law no 1540/1998 on the payment for environmental pollution

Environmental strategy for the years 2014 – 2023

Total emissions of main pollutants from stationary and mobile sources (1000 t/year)



Emission of some specific polluting substances in atmospheric air by stationary sources (t/year)



Source: statistica.gov.md

## Selected objectives and their evaluation

The current state of air quality, sectoral problems and the need for air protection all require the development of measures to reduce pollutant emissions at the source, as well as action directions to avoid, prevent or reduce the impact of air pollution on the components of the environment, ecosystems and human health, including in the context of meeting the commitments of the Republic of Moldova upon the ratification of international treaties.

### Creation of an integrated air quality management system

- To delimit the territory of the Republic of Moldova into zones or agglomerations reflecting their pollution level
- Stationary sources, installations, or activities generating pollutant emissions into the atmosphere, will be inventoried and classified into three categories according to the level of pollutant emissions: large, medium, and small.
- Temporary tolerance margins will be added for zones and agglomerations where the concentration of pollutants in ambient air exceeds target values or air quality limits.
- In case of necessity, air quality plans will be elaborated, following plans and programs of environmental quality rehabilitation. These plans will be provided at the stage of issuing the environmental authorizations.
- Harmonization of the national air quality legislation with the EU legislation and standards



### Strategic objective

The norms on air pollutant emission limits are outdated and don't meet the EU standards. Admissible limit values for air emissions of major pollutants have to be introduced gradually, starting with large heat and power plants, and extended progressively to other pollution sources and pollutant substances. Furthermore, pollution charges do not have any discouraging effect over polluters and are applied for too many substances. For these reasons, the system should be reviewed. Likewise, the amount of payments for emissions of significant pollutants has to be increased.

### Assessment of the fulfillment of the strategic objective

Population-weighted exposure to ambient PM<sub>2.5</sub> pollution is defined as the average level of exposure of a nation's population to concentrations of suspended particles measuring less than 2.5 microns in aerodynamic diameter, which are capable of penetrating deep into the respiratory tract and causing severe health damage. Direct monitoring of PM<sub>2.5</sub> is still rare in most parts of the world, and measurement protocols and standards are not the same for all countries. Between 2000 and 2017, the mean annual exposure of PM<sub>2.5</sub> in Moldova had a decreasing trend.

