



STATE OF THE ENVIRONMENT REPORT – SLOVAK REPUBLIC

2018

25th anniversary of annual reports

TRANSITION TO A GREEN AND CIRCULAR ECONOMY

INDUSTRY

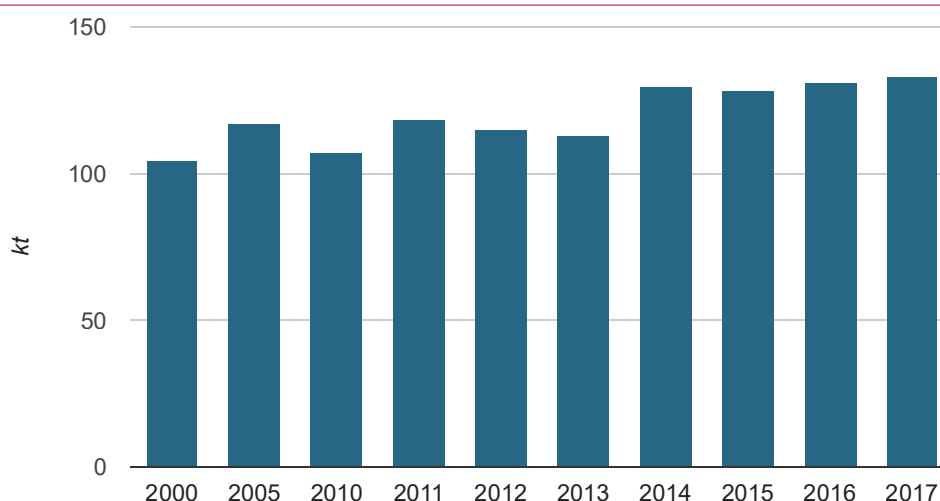
THE IMPACT OF INDUSTRY ON THE ENVIRONMENT

Industrial processes include all systematic activities where fuel is used in a technological process to produce products, including the storage, handling and distribution of products, and the use of products, including all activities related to their use (use of solvents, use of air conditioning, etc.).

The following trends can be observed in emissions of the main air pollutants from industry.

Emissions of CO from industry in 2017 made up 69.2% of total emissions and, compared to 2000 an increase of 27.8% was recorded. In 2017 emissions of CO from industry increased by 1.5% compared to the preceding year.

Chart 041 I Trend in emissions of CO from industry

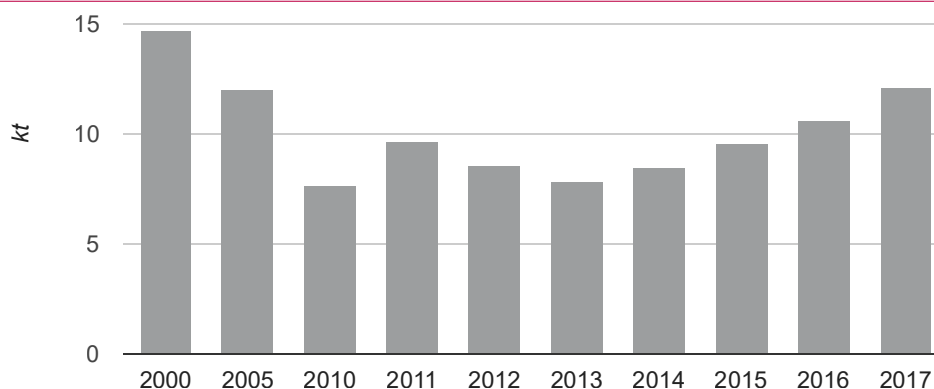


Source: Slovak Hydrometeorological Institute

Emissions of SO₂ from industry in 2017 made up 6.3% of total emissions, and compared to 2000 a decrease of 17.4% was

recorded. In 2017 emissions of SO₂ from industry increased by 14.2% compared to the preceding year.

Chart 042 I Trend in emissions of SO₂ from industry



Source: Slovak Hydrometeorological Institute

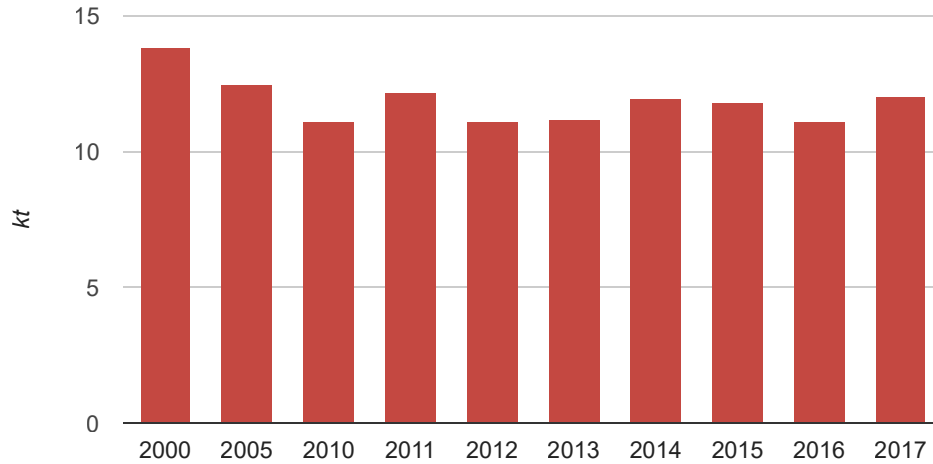
Note: Emissions determined as of 30 September 2018

TRANSITION TO A GREEN AND CIRCULAR ECONOMY

Emissions of NO_x from industry in 2017 made up 6.2% of total emissions and compared to 2000 a decrease of 13.1% was recorded

to 2000. In 2017 emissions of NO_x from industry increased by 7.9% compared to the preceding year.

Chart 043 | Trend in emissions of NO_x from industry

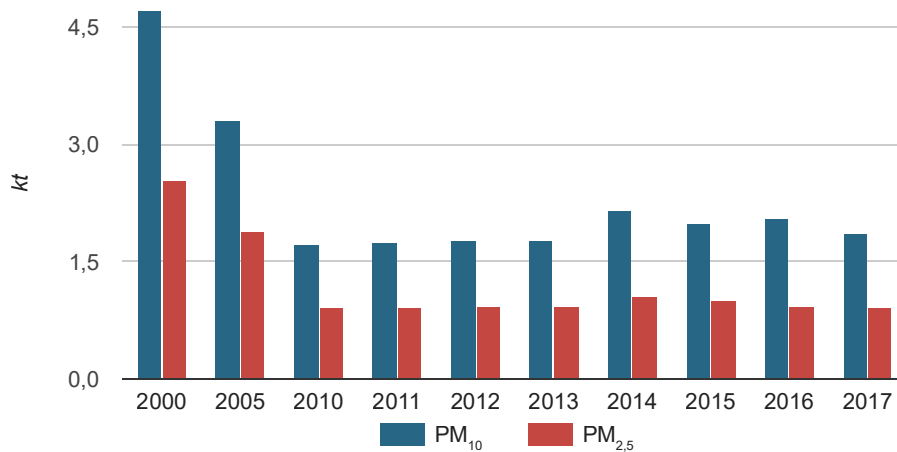


Source: Slovak Hydrometeorological Institute

Emissions of PM₁₀ in 2017 made up 0.97% of total emissions and compared to 2000 a decrease in emissions of PM₁₀ from industry of 60.4% was recorded. In 2017 emissions of PM₁₀ from industry decreased by 8.8% compared to the preceding year.

Emissions of PM_{2.5} in 2017 made up 0.47% of total emissions and compared to 2000 a decrease in emissions of PM_{2.5} from industry of 63.8% was recorded. In 2017 emissions of PM_{2.5} from industry decreased by 0.7% compared to the preceding year.

Chart 044 | Trend in emissions of PM₁₀ and PM_{2.5} from industry

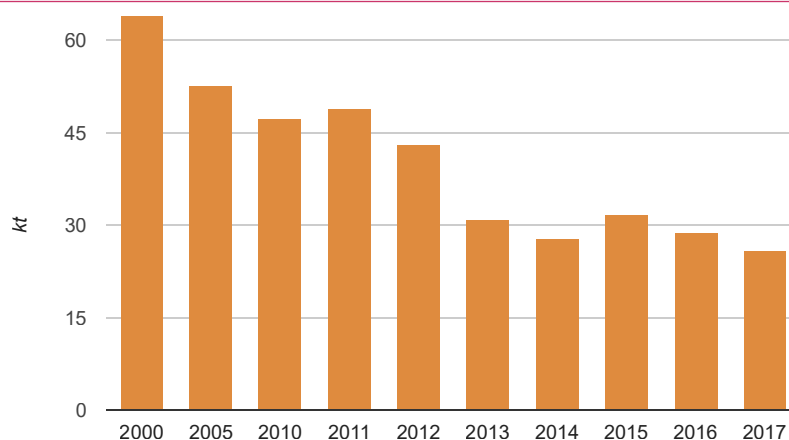


Source: Slovak Hydrometeorological Institute

Emissions of non-methane volatile organic substances (NMVOC) in 2017 made up 13.4% of total emissions and compared to 2000 a decrease of 59.5% was recorded. In 2017

emissions of NMVOC from industry decreased by 10.5% compared to the preceding year.

Chart 045 I Trend in emissions of non-methane volatile organic substances (NMVOC) from industry

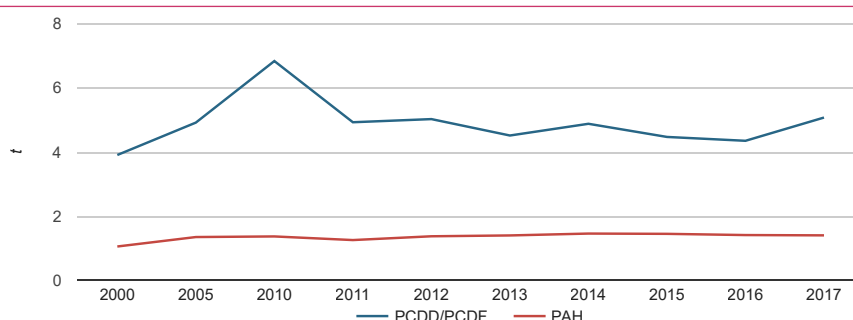


Source: Slovak Hydrometeorological Institute

Emissions of persistent organic pollutants (POPs) from industrial processes had a declining trend in 2017 compared to the preceding year in the case of emissions of polycyclic aromatic hydrocarbons (PAH). Emissions of polychlorinated

dibenzodioxins and dibenzofurans (PCDD/PCDF) increased by 29.8% compared to 2000, and emissions of polycyclic aromatic hydrocarbons increased in the same period by 32.8%.

Chart 046 I Trend in emissions of persistent organic pollutants (POPs) from industrial processes

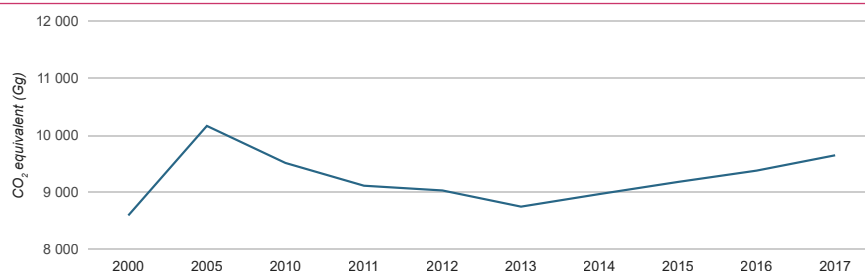


Source: Slovak Hydrometeorological Institute

In 2017 greenhouse gas emissions from industrial processes and used products increased by 12.3% compared to 2000 and increased by 2.9% compared to the preceding year.

In 2017 industrial processes and the use of products made up 26.3% of total emissions of greenhouse gases.

Chart 047 I Trend in greenhouse gas emissions from industrial processes and the use of products



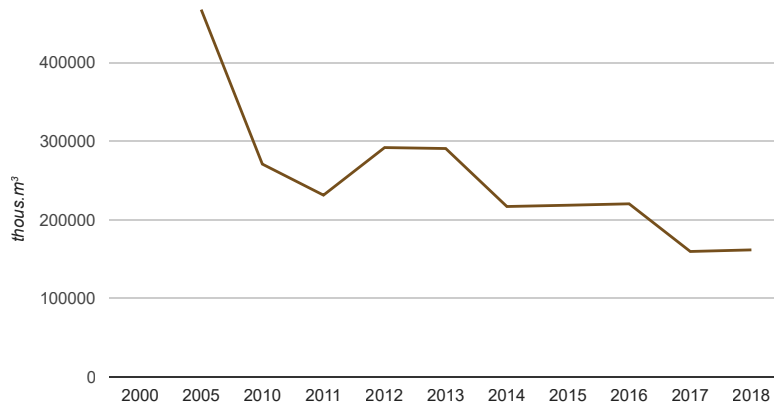
Source: Slovak Hydrometeorological Institute

Note: Emissions determined as of 11 April 2019

Water is another environmental element significantly impacted by industry. The trend in the discharge of waste water from industry shows a significantly falling yet

fluctuating trend since 2013. In 2018 there was a decrease in the discharged quantity of waste water of 70.9% compared to 2000.

Chart 048 I Trend in the discharged quantity of industrial waste water



Source: Slovak Hydrometeorological Institute

In 2018, **3 865 881 t of waste was generated by industry**, of which **296 955 t was hazardous waste** and **3 568 925 t other waste**. Compared to 2008 there was a decrease in generated waste of 13.5% and compared to the preceding year there

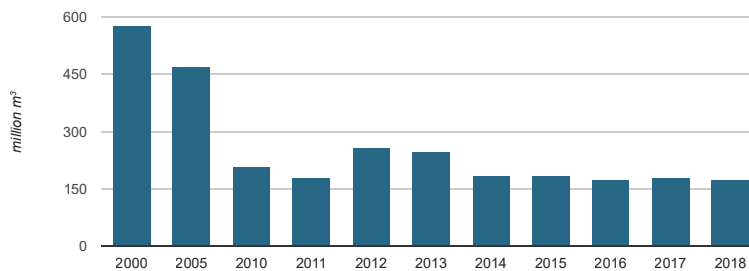
was a decrease of 1.08%. In terms of waste management, the share of waste generated by industry in the total volume of generated waste reached 34.7% in 2017.

RESOURCE-INTENSITY OF INDUSTRY

The abstraction of surface water in industry fell by 69.7% between 2000 and 2018. If a shorter trend assessment is

used, it has remained at approximately the same level since 2014.

Chart 049 I Trend in surface water abstraction in industry

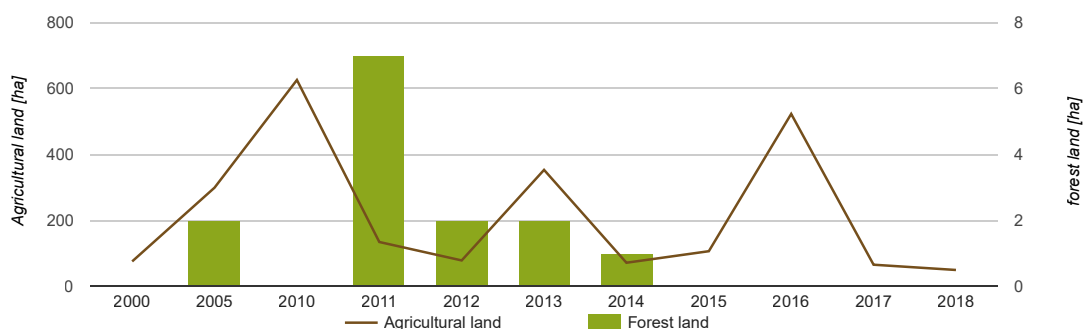


Source: Slovak Hydrometeorological Institute

The trend in **groundwater abstraction** has also shown a decrease over the long term. Groundwater abstraction in the **food industry** had fallen by 22.1% in 2018 compared to 2000, and groundwater abstraction in **other industry** fell by 29.4%. In a short-term comparison between 2010 and 2018 the trend is of stagnation, and in a comparison between 2018 and 2017 there was actually a recorded increase in abstraction.

The trend in **soil loss for industrial construction** has a fluctuating trend in the assessed period. The greatest **losses of agricultural land** for industrial construction was recorded in 2010 (606 ha). In terms of **forest land**, the greatest losses for industrial construction were recorded in 2011 (7 ha). In 2018 losses of agricultural land for industrial construction were 49 ha and in terms of forest soil no loss was recorded.

Chart 050 I Trend in soil loss for industrial construction



Source: The Geodesy, Cartography and Cadastre Authority of the Slovak Republic