STATISTICS AUSTRIA
The Information Manager

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Air emissions decreased from 2021 to 2022

CO_2 emissions from the combustion of fossil fuels 2.3% higher in 2022 than in the previous year, but lower than in 1995

Vienna, 2024-10-11 – According to latest data by Statistics Austria, the majority of emissions of air pollutants and greenhouse gases fell in 2022 compared to 2021. For the most part, emissions were also below the values of the reference year 1995.

"Since 1995, emissions of most air pollutants and greenhouse gases have decreased, in some cases considerably. In particular, CO_2 emissions from the combustion of fossil fuels were 6.6% lower in 2022 than 27 years earlier. Compared to 2021, however, CO_2 emissions from fossil sources increased by 2.3% in 2022. This is mainly due to the higher volume of traffic after the years of corona lockdowns," says Tobias Thomas, Director General Statistics at Statistics Austria.

For particulate matter, decreases compared to 2021 were recorded for PM_{10} (−4.1%; particles sized less than 10 to a maximum of 2.5 micrometre) as well as for $PM_{2.5}$ (−4.4%; particulate matter that can enter the lungs with less than 2.5 micrometre in diameter). This decline can be attributed to the warm weather and rising energy prices, which led to a decreased use of biomass for heating especially among private households. For the same reasons, carbon monoxide (CO) emissions decreased by 9.8% and non-methane volatile organic compounds (NMVOC) by 6.9% compared to 2021. These are the highest reductions of all emissions considered. However, CO_2 emissions from fossil sources increased by 2.3% from 2021 to 2022 (see table); the main reason for this was the increased volume of traffic. Yet, the increase in climate-effective CO_2 emissions, which include both fossil and process-related emissions (the latter caused for instance by the conversion of limestone to cement clinker in cement production), only amounted to a total of 0.2%.

Decline in emissions from fossil combustion since 1995

Between 1995 and 2022, the highest decreases were achieved for sulphur dioxide (SO_2, −74.2%), NMVOC (−57.1%) as well as carbon monoxide (CO, −47.7%). Also emissions of $PM_{2.5}$ (−40.1%), methane (CH_4, −38.2%), nitrogen oxide (NO_x −28.6%) and PM_{10} (−29.2%) were significantly reduced.

The increased use of renewable energies, like fuelwood or biomass, caused a 97.3% rise in climate-neutral CO_2 emissions from biogenic sources between 1995 and 2022. In the same period, a reduction in emissions from the combustion of fossil fuels was achieved (−6.6%). CO_2 emissions from other sources (process-related emissions) showed an increase of 24.7%. Overall, these climate-effective emissions slightly decreased by 0.7%.

Private households reduced emissions of almost all observed air pollutants and greenhouse gases in the period from 1995 to 2022, with the exception of CO_2 emissions from other sources (+23.9%) and CO_2 from biogenic sources (+11.4%). Emissions from the economy sunk for all air pollutants and greenhouse gases except for CO_2 emissions from fossil sources (+0.1%) and other sources (+24.7%) as well as for climate-neutral biogenic CO_2-emissions (+210.6%).

For detailed results and further information please refer to our website.

Carbon dioxide emissions 1995–2022 by polluter, in tonnes

Emission	1995	2021	2022	Change in % 1995–2022
Climate-effective CO_2-emissions				
from fossil sources				
Private households	17 847 400	15 496 100	14 530 000	-18.6
Economy	31 966 600	30 000 800	32 010 700	+0.1
Total	49 813 900	45 496 900	46 540 700	-6.6
from other sources				
Private households	76 000	86 500	94 200	+23.9
Economy	11 335 300	15 071 300	14 135 000	+24.7
Total	11 411 300	15 157 800	14 229 200	+24.7
Climate-neutral CO_2-emissions				
from biogenic sources				
Private households	7 033 800	10 059 300	7 837 600	+11.4
Economy	5 330 700	16 030 300	16 557 500	+210.6
Total	12 364 600	26 089 600	24 395 100	+97.3

S: STATISTICS AUSTRIA, Environment Agency Austria, air emissions accounts.

Information on methodology, definitions: The data for the calculation of the air emissions accounts, which is to be prepared on the basis of Regulation (EU) 691/2011 on European environmental-economic accounts, comes from the Austrian air pollutant and greenhouse gas inventory of the Environment Agency Austria. The air emissions accounts are a satellite account of the national accounts and therefore follow their rules. According to them, the air emissions accounts record all emissions of air pollutants and greenhouse gases following the residence principle (all domestic and foreign emissions generated by domestic companies, institutions and private households). Other reporting obligations (according to UNFCCC, UNECE CLRTAP) follow the domestic principle (all domestic emissions are recorded, regardless of whether they are caused by residents or non-residents). The difference between the air emissions accounts calculation and the other reporting obligations mentioned lies in the different consideration of transport emissions (emissions from residents versus non-resident emissions). Based on the requirements of the EU regulation, the time series starts with the year 1995. The deviation from the reporting obligations according to UNFCCC and UNECE CLRTAP (from 1990) is due to the fact that there is only comparable data at the level of economic activities from 1995 onwards and a back calculation to 1990 is not possible.

Further enquiries:
For information on results and methodology, please contact:
Manuela Strasser, Phone: +43 1 711 28-7184, E-mail: manuela.strasser@statistik.gv.at
Sacha Baud, Phone: +43 1 711 28-7304, E-mail: sacha.baud@statistik.gv.at
For interview requests, please contact the press office: presse@statistik.gv.at

Media owner, producer and publisher:
STATISTICS AUSTRIA | Federal Institution under Public Law | Guglgasse 13 | 1110 Vienna | www.statistik.at
Press: Phone: +43 1 711 28-7777 | E-mail: presse@statistik.gv.at