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Air emissions continued to decline in 2023

Fossil CO_2 emissions continue to decline; industrial processes and transport remain key factors

Vienna, 2025-10-10 – Since 2008, air pollutant and greenhouse gas emissions in Austria have changed significantly. In particular, emissions of fossil CO_2 fell significantly. In 2023 it was 17.8% lower than in 2008 and 6,4% lower than in 2022.

"In 2023, CO_2 emissions from fossil sources in Austria fell by 6.4% compared to the previous year. Emissions decreased significantly, especially in the transport sector. A decisive factor here was the reduction in diesel consumption, especially in freight transport. However, where fossil CO_2 emissions cannot be reduced by switching to renewable energy sources, for example in the production of cement, steel, or chemicals, emissions remain high," says Manuela Lenk, Director General Statistics at Statistics Austria.

Total climate-relevant CO_2 emissions (fossil and process-related) have decreased by 16.2% since 2008, and by 5.9% in 2023 compared to the previous year.

Households: Mild weather results in lower emissions

Since 2008, private households have reduced their emissions of almost all air pollutants. The decrease was particularly pronounced between 2022 and 2023: due to the mild weather, less energy was used for space heating. As a result, emissions of particulate matter (PM_{10} and $PM_{2.5}$), carbon monoxide (CO), and non-methane volatile organic compounds (NMVOC) fell by several percentage points.
However, biogenic CO_2 shows in the timeline a different picture: while emissions have increased overall compared to 2008 (+6.7%), they declined from 2022 to 2023 (−2.3%).

Economy: Emissions generated in the production process remain stable

The economic sector also shows a differentiated trend. Fossil CO_2 emissions from industrial and commercial heating and production plants decreased by almost a fifth (−19%) between 2008 and 2023. Emissions declined particularly sharply between 2022 and 2023 (−7.4%), which is primarily attributable to reduced energy use in production.

However, process-related emissions — those generated during the manufacture of cement, steel, or chemicals — carry particular weight. These have stagnated for years: since 2008, they have decreased by only 10.5%, and by 4.3% between 2022 and 2023. Since such emissions cannot be reduced by switching to renewable energy sources, countermeasures must be taken with technological innovations such as CO_2 capture and alternative production processes.

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

Carbon dioxide emissions 2008-2023 by polluter, in tonnes

Emission	2008	2022	2023	Change in % 2008-2023
Climate-effective CO2-emissions				
from fossil sources				
Private households	16 342 600	14 485 900	13 858 600	−15.2
Economy	36 380 000	31 823 300	29 471 600	−19.0
Total	52 722 600	46 309 200	43 330 200	−17.8
from other sources				
Private households	75 400	99 900	88 200	+17.0
Economy	15 285 900	14 268 700	13 661 600	−10.6
Total	15 361 400	14 368 600	13 749 800	−10.5
Climate-neutral CO2-emissions				
from biogenic sources				
Private households	7 528 100	8 221 300	8 034 500	+6.7
Economy	13 549 400	16 427 700	16 405 500	+21.1
Total	21 077 500	24 649 100	24 440 000	+16.0

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 according to 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 Regulation (EU) 691/2011, 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.

To better classify the reported CO_2 emissions, a distinction is made between fossil and biogenic sources:

Carbon dioxide (CO_2) from fossil sources: These emissions arise from the combustion of non-renewable energy carriers (e.g. crude oil, natural gas or coal). They are considered climate-relevant, as the CO_2 released was previously stored underground over geological time periods and is now additionally emitted into the atmosphere.

Carbon dioxide (CO_2) from biogenic sources: CO_2 from biogenic sources originates from the combustion of biogenic (renewable) fuels such as firewood or biogas. These emissions are regarded as climate-neutral, because the released CO_2 was previously bound in renewable raw materials and can be reabsorbed through sustainable resource management. However, climate neutrality applies only if the use of biogenic raw materials does not exceed their rate of regeneration.

Statistics Austria is the central organisation for official data and statistics on society, the economy, the state and the environment. As a national statistical institute, it is committed to the statutory principles of independence, impartiality and objectivity. Statistics Austria is headed by Manuela Lenk, Director General Statistics, and Franz Haslauer, Director General Finance.

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