

Explanation of Key Trends - Fine Particulate Matter (PM_{2.5})

Obligations

Germany has made a commitment to reduce particulate matter emissions. The revised Gothenburg Protocol and the revised NEC Directive both define emission reduction targets relative to a 2005 base year, mandating 26% (by 2020) and 43% (by 2030) reductions respectively.

While Germany's compliance with these obligations is not discussed here, further information on this subject can be found in [Chapter 9 - Projections](#) and [Chapter 11 - Adjustments and Emission Ceiling Exceedance](#).

Main drivers

Between 1995 and 2024, **Total PM_{2.5} emissions declined by 62.0%**.

The **main drivers** for PM_{2.5} emissions are **Fuel Combustion (NFR 1.A)** with 73% of total 1995 emissions and a 69% reduction between 1995 and 2024 **and**, as a sum, the **Industrial Processes (NFR 2)** with about 21% of total 1995 emissions and a 52% reduction between 1995 and 2024.

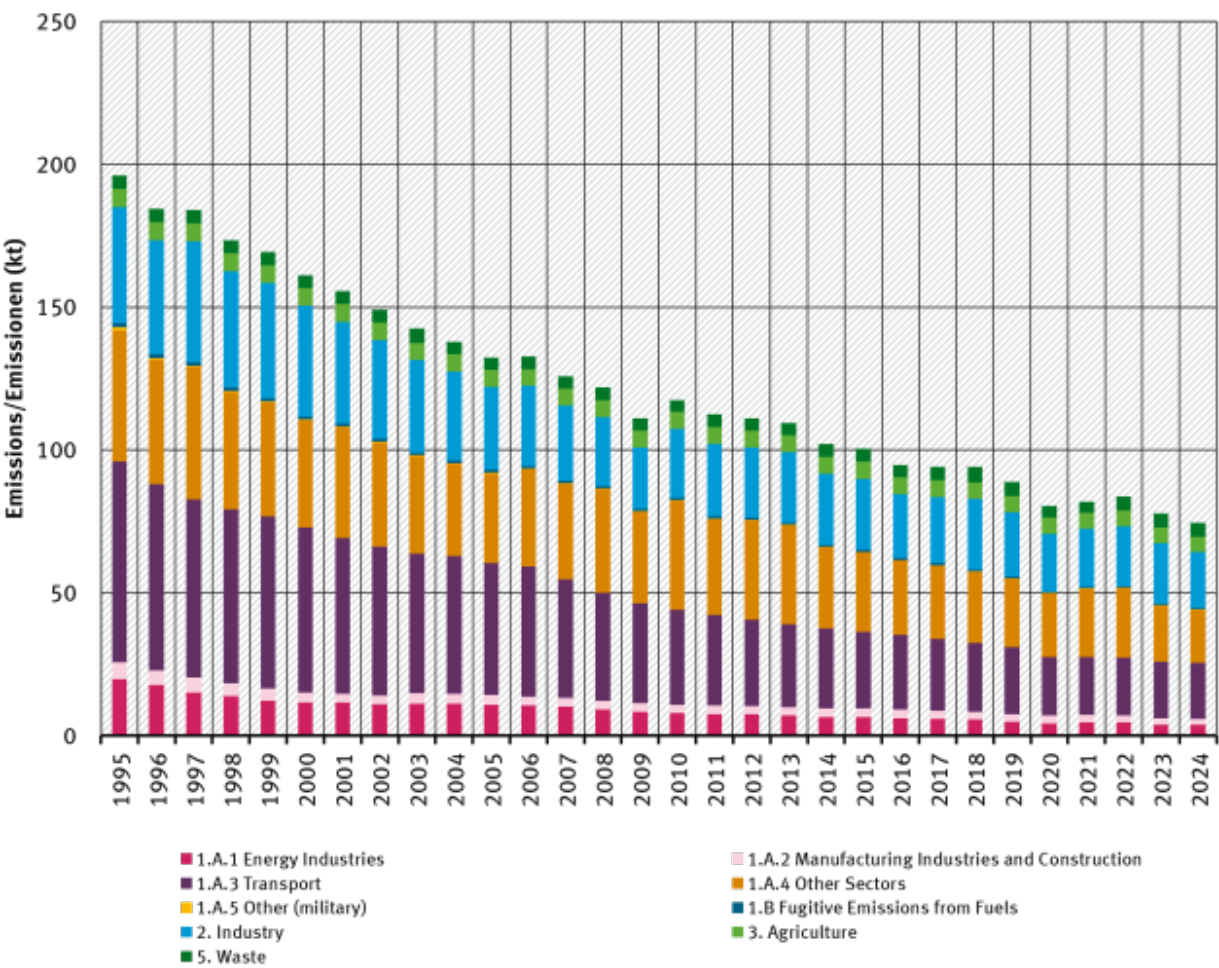
Within both National totals and NFR 1.A, **Transport (NFR 1.A.3)** is responsible for the biggest part of PM_{2.5} emissions. Here, about 88% of 2024 PM_{2.5} transport emissions are induced by **Road Transport (NFR 1.A.3.b)**. About one quarter (25%) of these emissions are directly caused by **fuel combustion (NFRs 1.A.3.b.i-iv)** whereas 75% stem from **tyre and brake wear (1.A.3.b.vi) and road abrasion (vii)**.

Table: PM_{2.5} Emissions 1990-2024, in kilotonnes [kt]

														Trend: latest year compared to...	
1995	2000	2005	2010	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	...BY (1995)	...previous year
196	161	132	118	100	95	94	94	89	80	82	84	78	74	-62.0%	-4.4%

Fine Particulate Matter / Feinstaub (PM_{2.5})

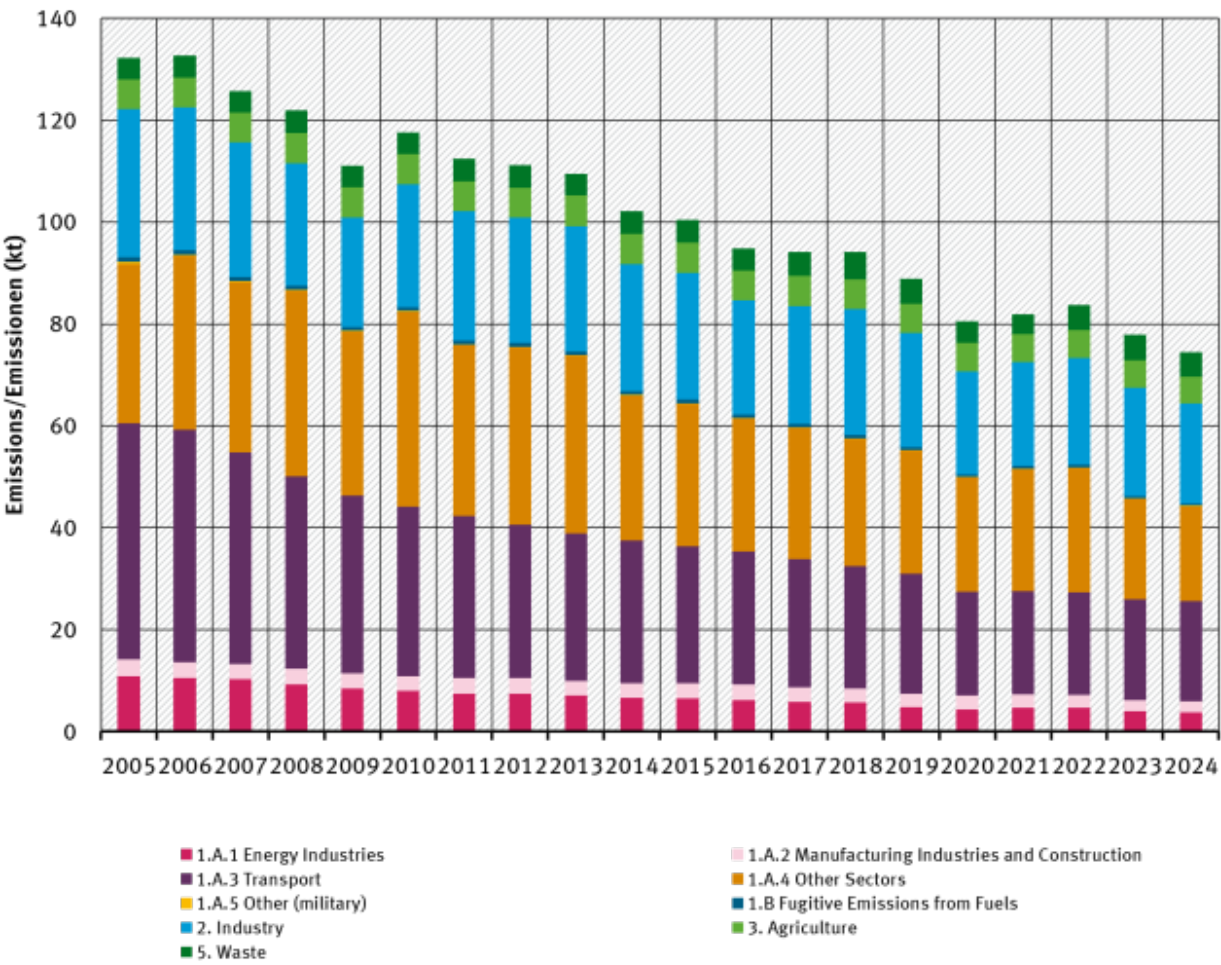
Emissions per Sector / Sektorale Emissionen



Quelle: German Emission Inventory (04.02.2026)

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