Emission Trends BC

Germany reports Black Carbon (BC) emissions for all years from 2000 onward. The main sources are transport as well as mobile and stationary combustion. Germany uses the EMEP/EEA 2016 Guidebook to estimate BC emissions, augmented by some country specific emission factors, i.e. split factors for the BC portion of $PM_{2.5}$, in particular in road transport.

Between 2000 and 2023, **Total Black Carbon emissions dropped by 76%**.

The main drivers are the **transport emissions (NFR 1.A.3)** with 70% of total 2000 emissions, and a 85% reduction between 2000 and 2023. Over the entire time series, 90% of the transport emissions come from **Road Transport (NFR 1.A.3.b)**. The overlying trend towards more diesel cars in the German fleet slowed the decrease in emission over this period (see figure below).

24% of the 2000 total emissions result from **Other Sectors (NFR 1.A.4)**, mostly from residential stationary combustion and mobile sources therein, with a 56% reduction between 2000 and 2023.

Table: Black Carbon emissions 1990-2024, in kilotonnes [kt]

													Trend: latest compared to	
2000	**2005**	**2010**	**2015**	**2016**	**2017**	**2018**	**2019**	**2020**	**2021**	**2022**	**2023**	**2024**	**2000**	**previous year**
39	32	23	16	15	14	13	12	11	10	10	9	9	-77.8%	-6.5%