

# Explanation of Key Trends - Ammonia

## Obligations

Germany has made a commitment under the Gothenburg Protocol to reduce ammonia emissions. Since 2010, it is no longer permissible to exceed a National Emission Ceiling of 550kt NH<sub>3</sub> for Germany as whole. The revised Gothenburg Protocol and the revised NEC Directive both define emission reduction targets relative to a 2005 base year, mandating 5% (2020) and 29% (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

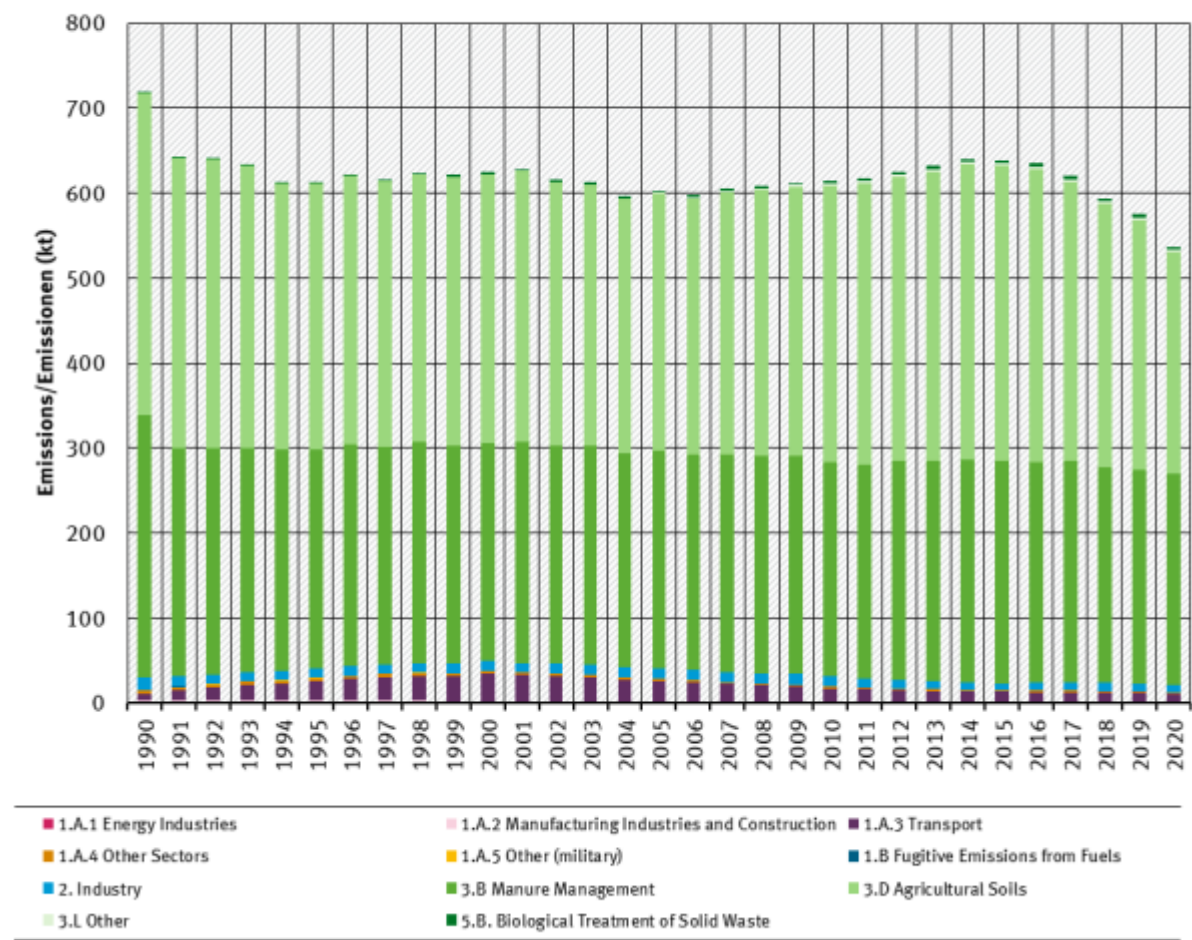
The Main Drivers for NH<sub>3</sub> emissions are agricultural emissions from **Manure Management (NFR 4.B)** with 42% of total 1990 emissions and a 20% reduction between 1990-2019 and **Agricultural Soils (NFR 4.D)** with even 53% of total 1990 emissions and a 16% decrease between 1990-2018. The overall emission trend mainly follows the agricultural emissions closely with a total reduction of 18% between 1990 and 2019. The decrease of NH<sub>3</sub> emission in the year 1991 is due to a reduced livestock population that followed after the German reunification, while no explicit trend is discernible for the years up to 2016. Between 2016 and 2019 there is a slight reduction of about 8%, but it has to be seen how stable this trend will be.

### NH<sub>3</sub> Emissions 1990-2019

| Total Emissions (kt) |      |      |      |      |      |      |      |      |      |      |      |      |      |      | Trend: latest compared to |            |
|----------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|---------------------------|------------|
| 1990                 | 1995 | 2000 | 2005 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 1990                      | last years |
| 718                  | 613  | 624  | 603  | 614  | 618  | 625  | 632  | 640  | 639  | 635  | 620  | 594  | 575  | 537  | ▼ -25.2%                  | ▼          |

# Ammonia / Ammoniak

Emissions per Sector / Sektorale Emissionen



Quelle: German Emission Inventory (01.02.2022)

## NH<sub>3</sub> trend by sector