

SUMMARY

This chapter includes a summary of the projections for the scenario ‘with existing measures’ (WEM). The main results for the four CRF sectors (without LULUCF) and the greenhouse gases are presented in CO₂ equivalent. Trend graphs include GHG totals by category and by gas.

Total GHG emissions

The trend of GHG without LULUCF shows an increase of 4.6% from 1990 to 2017 and a decrease of 8.1% from 1990 to 2035 in the ‘with existing measures’ (WEM) scenario, i.e. from 78.7 Mt of CO₂ equivalent in 1990 to 82.3 in 2017 and to 72.3 Mt of CO₂ equivalent in 2035.

Table 1: Historical trends and projections (2020–2035):
greenhouse gas emissions (without LULUCF). (Umweltbundesamt)

	Inventory trend [kt CO ₂ eq]					Emissions ‘with existing measures’ [kt CO ₂ eq]			
	1990	2005	2010	2015	2017	2020	2025	2030	2035
Total (without LULUCF)	78 670	92 567	84 753	78 897	82 261	79 669	76 637	73 961	72 298
1 Energy	52 946	67 138	59 563	53 409	56 272	54 930	52 886	50 757	49 224
2 Industrial Processes	13 662	15 600	15 930	16 602	17 197	15 978	15 136	14 657	14 526
3 Agriculture	8 137	7 038	7 103	7 249	7 308	7 467	7 546	7 626	7 722
5 Waste	3 925	2 791	2 158	1 638	1 484	1 294	1 069	921	827

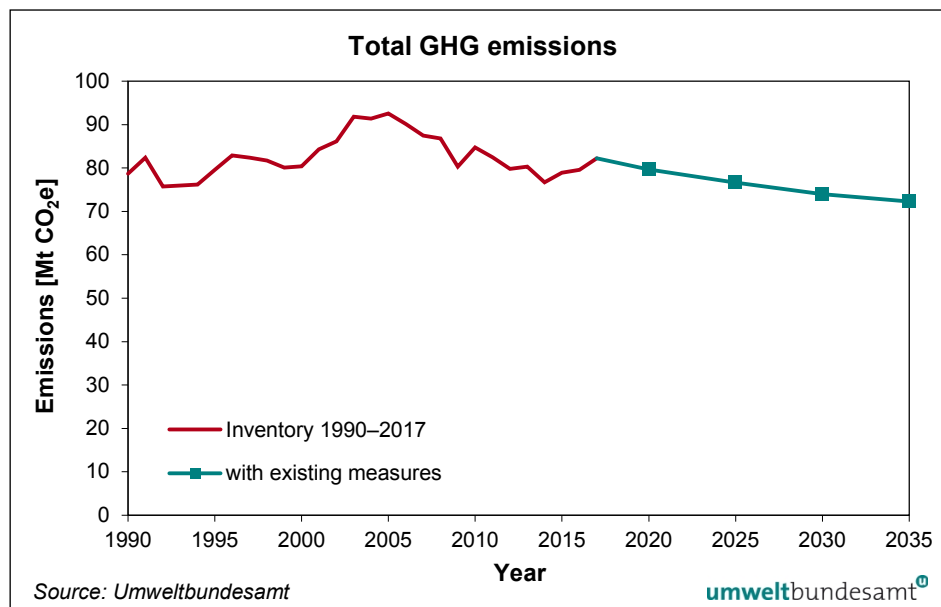


Figure 1:
Past trend and scenario
(2020–2035):
total GHG emissions
(without LULUCF).

Table 2:
Past trend and scenario
(2020–2035):
GHG emissions by gas
(without LULUCF).
(Umweltbundesamt)

	Emission trend [kt CO ₂ eq]					Emissions 'with existing measures' [kt CO ₂ eq]			
	1990	2005	2010	2015	2017	2020	2025	2030	2035
CO ₂	62 323	79 395	72 228	66 733	69 979	67 773	65 504	63 421	61 928
CH ₄	10 363	7 748	7 256	6 678	6 597	6 428	6 210	6 087	6 022
N ₂ O	4 329	3 590	3 366	3 498	3 505	3 598	3 595	3 598	3 613
F-Gases	1 656	1 833	1 904	1 988	2 180	1 871	1 327	856	735
Total	78 670	92 567	84 753	78 897	82 261	79 669	76 637	73 961	72 298

The WEM scenario predicts a decrease in total GHG emissions by 12% or 10.0 Mt of CO₂ equivalent between 2017 and 2035.

This change is mainly driven by a decrease in the Energy (minus 13% or 7.0 Mt of CO₂ equivalent) and Industrial Processes sector (minus 16% or 2.7 Mt of CO₂ equivalent). Emissions from the Agricultural sector are forecast to increase by 5.7% or 0.4 Mt of CO₂ equivalent. Emissions in the Waste sector are forecast to decrease by 44% or 0.7 Mt of CO₂ equivalent.

In the Energy sector emissions from the sub-sector 1.A.1 Energy Industries are forecast to decrease by 9% or 4.4 Mt of CO₂ equivalent and in 1.A.2 Manufacturing Industries and Construction emissions are forecast to increase by 13% or 1.5 Mt of CO₂ equivalent.

Emissions from the sub-sector 1.A.3 Transport are forecast to decrease by 5.8% or 1.4 Mt of CO₂ equivalent between 2017 and 2035, and emissions from the sub-sector 1.A.4 and 1.A.5 'Other sectors' are forecast to decrease by 27% or 2.5 Mt of CO₂ equivalent.

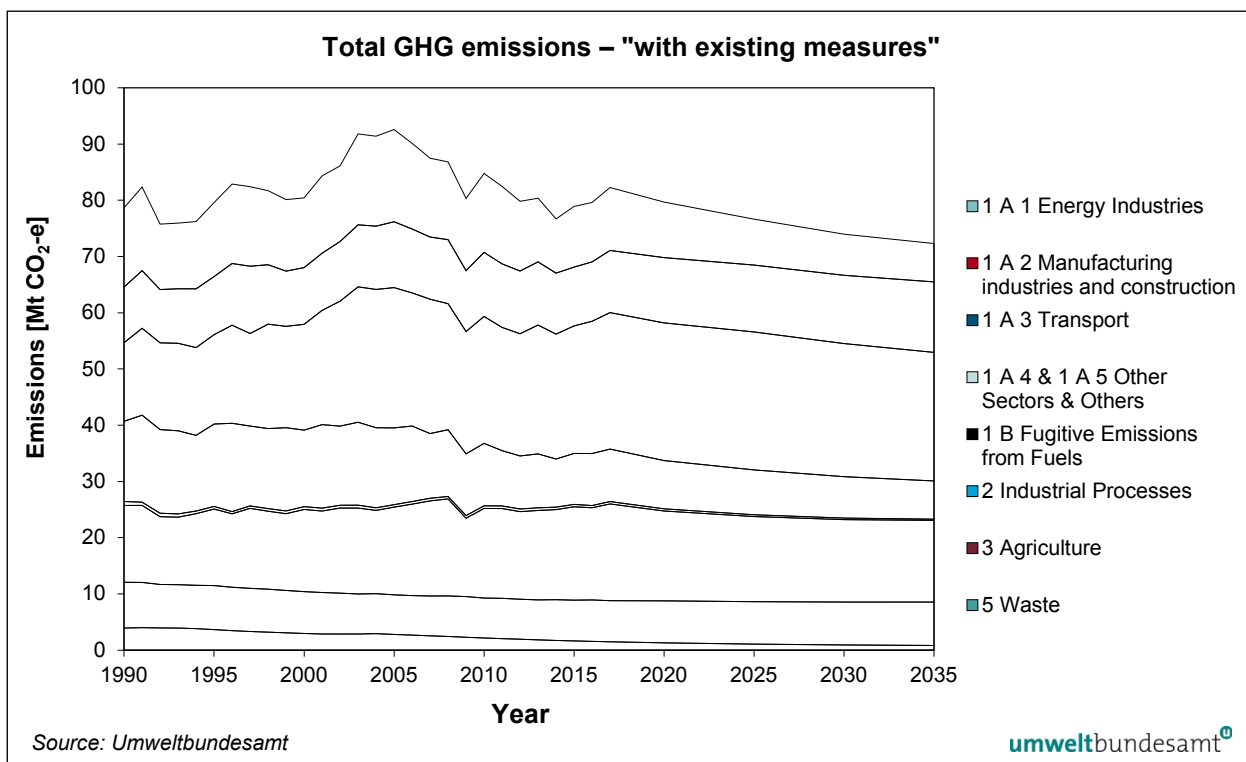


Figure 2: Past trend and scenario (2020–2035): total GHG emissions by sector.

According to the WEM scenario, the most important GHG in Austria will still be CO₂ with a minor increase between 2017 (85.1%) and 2035 (85.7%). Between 2017 and 2035, total CH₄ emissions and N₂O emissions (in CO₂ equivalent) are forecast to increase from 12.3% to 13.3%, whereas the percentage of emissions of fluorinated gases (HFC, PFC, SF₆ and NF₃) is expected to decrease from 2.6% in 2017 to 1.0% in 2035.

An analysis of the past trend and the scenario by sector is presented in Chapter 2 ‘Sectoral Scenario Results’ Tables with detailed emissions by sub-sector and gas are included in the Annex. Specific sectoral assumptions and activities are described in the sub-chapters 3.1 to 3.5.

EU ETS/EU ESD emissions

GHG emissions covered by the EU Emissions Trading Scheme (ETS) show a downward trend until 2035. The driving force is the Energy sector with a projected decrease by about 22% from 2017 to 2035. A decrease is also projected for the Industrial Processes sector (– 9%).

Total EU Effort Sharing Decision (ESD) GHG emissions are expected to decrease by 10% over the same period.

Table 3: EU ETS and EU ESD GHG emissions (Umweltbundesamt)

	with existing measures [kt CO ₂ eq]					
EU ETS GHG emissions	2015	2017	2020	2025	2030	2035
Total (without LULUCF)	29 492	30 555	28 710	26 823	26 051	25 739
1. Energy	15 354	15 967	15 054	13 472	12 712	12 412
2. Industrial Processes	14 138	14 588	13 656	13 350	13 339	13 327
EU ESD GHG emissions	2015	2017	2020	2025	2030	2035
Total (without LULUCF)	49 342	51 652	50 903	49 758	47 851	46 498
1. Energy	38 006	40 263	39 829	39 367	37 996	36 760
2. Industrial Processes	2 450	2 597	2 313	1 776	1 308	1 189
3. Agriculture	7 249	7 308	7 467	7 545	7 626	7 721
5. Waste	1 638	1 484	1 294	1 069	921	827