Press Release No. 17/2012

Press Relation Officer: Martin Ittershagen
Deputy Press Relation Officer: Stephan Gabriel Haufe
PR-staff: Fotini Mavromati, Marc Rathmann, Martin Stallmann
Office: Doreen Redlich, Uwe Weber
Telephone: 0340/2103 -2122, -6625, -2318, -2250, -2507, -2669, -2637
Address: Federal Environment Agency, P.O. box 1406, 06813 Dessau-Roßlau
E-Mail: pressestelle@uba.de
Internet: www.umweltbundesamt.de
Facebook: www.facebook.com/umweltbundesamt.de

Umwelt Bundes Amt
For our Environment

Less greenhouse gases with less nuclear energy

Overall emissions in Germany drop by some 2 per cent over previous year

Greenhouse gas emissions levels dropped in Germany in 2011 once again, as current calculations by the Federal Environment Agency (UBA) prove. Emissions of carbon dioxide and methane in particular continued to decline. The greater use of renewable energies has had a positive effect on the emissions development trend. In contrast, the level of fluorinated gases, or so-called F-gases, remained largely constant, with an increase in nitrous oxide, in part due to the greater use of fertilizers. Some 917 million tonnes of greenhouse gases were emitted to the atmosphere in 2011. "The decline in emissions shows that Germany is serious about its commitments. The goals of the Kyoto Protocol can be reached even if nuclear energy phase-out is accelerated, a fact which has often been cast into doubt", explains UBA President Jochen Flasbarth. Additional measures are necessary, however, to reach the climate goals. For one, the number of CO_2 allowances should be reduced by toughening Europe's climate protection target and moving forward on remediating the energy supply in building stock. To clarify the figures: the current data reflect absolute emission volumes. The Federal Environment Agency mandate does not allow for making statistical adjustments to account for factors such as the influence of temperature or the state of the economy.

Greenhouse gas emissions (GHG) decreased in 2011 by 26.5 per cent compared to the 1990 index year. This again exceeds the Kyoto reduction target of 21 per cent. Despite the upward economic trend and the decommissioning of eight nuclear power plants, GHG emissions declined by 2 per cent compared to 2010, making it equal to levels in the 2009 crisis year. Says UBA President Flasbarth, "Emissions were in fact reduced due to relatively mild weather, but the growing share of green electricity resulted in lower emissions as did fewer exports of electricity. In consideration of the change in energy policy and the low proportion of power from nuclear power plants, these emissions figures are a measure of success. In order to achieve our 40-percent mitigation target, we must not let up on our efforts." These efforts include further measures to increase energy efficiency and the remediation of energy supply in building stock.

Carbon dioxide: CO_2 emissions declined by 2.4 per cent compared to 2010. This significant decrease owes largely to lower demand for heating energy as a result of milder weather. This effect is especially noticeable in natural gas consumption and in the demand for heating oil. High prices for heating oil drove purchasing down and boosted use of stocks. The energy consumption

at refineries last year continued to decline due to lower processing volumes. Although the share of nuclear energy dropped significantly, emissions from electricity production rose only slightly. Less electricity was exported, and more electricity from renewable energies was produced. These facts are also reflected in the data reported for 2011 by energy suppliers and industrial facilities that participate in the European emissions trading scheme (ETS). The CO_2 emissions of the energy sector reported sank by between 2 and 6 per cent. However, industrial process-related emissions, from the chemicals and metals industries for example, rose in tandem with economic development.

Methane: Methane emissions dropped by 3.5 per cent compared to the previous year. This is due mainly to the lower rate of waste disposal to landfills, for their organic components are a major source of methane emissions. The volume of allowable waste disposed has been decreasing since 2005. The drop in volumes of mined black coal and smaller livestock numbers also resulted in less methane.

Nitrous oxide: Nitrous oxide emissions rose by 2.3 per cent in 2011 because the use of fertilizer with this ingredient was considerably higher than in the previous year. The chemicals industry also produced more nitrous oxide in parallel to the economic trend; however, reductions in the energy sector offset these emissions. Emissions from the transport sector rose slightly as a result of the increased use of catalytic converters in heavy goods traffic (EURO IV and higher). Whereas these catalytic converters are highly efficient in reducing the amount of nitrous gases, they do increase nitrous oxide emissions slightly.

F-gases: Emissions went down slightly by 0.4 per cent, owing largely to the discontinued production of the refrigerant R22. Significant volumes of hydrofluorocarbons (HFCs) were emitted, but this one-time effect was practically compensated as emissions from refrigerants and sulphur hexafluoride (SF_6) increased, owing mainly to emissions from building products such as soundproof windows.

Further information and links:

Kyoto targets
For Germany to reach the Kyoto target, its average GHG emissions for 2008-2012 may not exceed 974 mn tonnes CO_{2equ} per year. That target was almost reached in 2008, with emissions of 976 mn tonnes CO_{2equ}. The total annual shortfall of the target for the commitment period is 154 mn tonnes CO_{2equ}. Germany had a shortfall in 2011 at 58 million tonnes.

Accuracy of information
The current emissions figures for Germany derive from a system of model extrapolations and trend predictions based on the detailed calculations for 2010 which were published in January. The data used for 2011 comes from published survey material from official statistics, the Working Group on Energy Balances and industry associations. Therefore, the results are provisional in nature and may vary slightly. The data reflects absolute emissions, without statistical adjustment or taking account of the effects of weather and the state of the economy.

For details about reporting click here:
http://cdr.eionet.europa.eu/de/eu/ghgmm/envtw7blw

For an overview of emissions trends click here:
http://www.umweltbundesamt.de/emissionen/publikationen.htm

Dessau-Roßlau, 12 April 2012

Figure 1

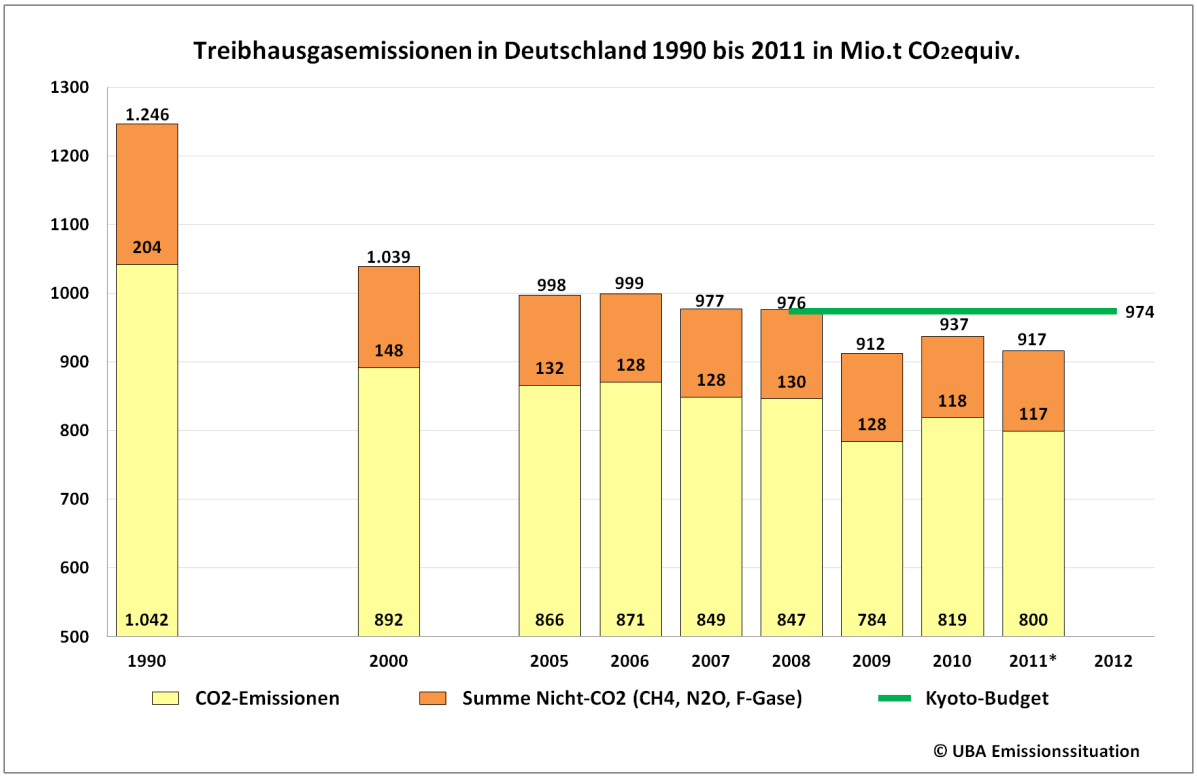

Table 1

CO_2-Emissionen in Deutschland - Zeitnahprognose für das Jahr 2011 (Zusammenfassung)

Emissionsquellen	2010 Mio. t	2011 Mio. t	Veränderung Mio. t	Veränderung %
Energiebedingte Emissionen	**763,9**	**743,9**	-20,0	-2,6
Mineralöle	250,0	244,5	-5,5	-2,2
Erdgas und andere Gase [1)]	167,6	149,5	-18,1	-10,8
Steinkohlen	154,5	151,4	-3,1	-2,0
Braunkohlen	168,7	174,5	5,8	3,5
Sonstige [2)]	21,6	22,4	0,8	3,8
diffuse Emissionen [3)]	1,5	1,5	0,0	-0,1
Industrieprozesse	**53,6**	**54,2**	0,6	1,2
Lösemittel/ Produktverwendung	**1,6**	**1,6**	0,0	-1,0
Insgesamt	**819,0**	**799,6**	-19,4	-2,4

1) Erdgas, Kokerei- und Stadtgas, Grubengas

2) fossiler Abfallanteil, Ersatzbrennstoffe und Emissionen durch Rauchgasentschwefelung

3) durch Förderung, Aufbereitung und Umwandlung von Brennstoffen

© UBA Emissionssituation
Stand: 15.03.2012

Table 2

Treibhausgasemissionen in Deutschland im Jahr 2011 (erste Schätzung)								Änderungen zu 2010 nach Quellkategorien		
	CO_2	CH_4	N_2O	HFCs	PFCs	SF_6	Total	Total 2010	absolut	relativ
	CO2 equivalent (Mio. t)									in %
Energiebedingte Emissionen	**743,9**	**11,7**	**6,3**				**761,9**	**782,3**	**-20,4**	**-2,6**
Energiewirtschaft	348,5	1,7	3,7				354,0	354,5	**-0,5**	**-0,2**
Verarbeitendes Gewerbe	114,6	0,2	0,7				115,6	115,0	**0,6**	**0,5**
Verkehr	155,1	0,2	1,4				156,6	154,7	**1,9**	**1,2**
übrige Feuerungsanlagen	124,2	0,8	0,5				125,5	147,2	**-21,7**	**-14,8**
davon GHD und Militär	38,5	0,1	0,1				38,7	44,1	**-5,4**	**-12,3**
davon Haushalte	85,7	0,7	0,4				86,8	103,1	**-16,3**	**-15,8**
Brennstoffgewinnung und Verteilung	1,5	8,8	0,0				10,3	10,8	**-0,5**	**-4,7**
Industrieprozesse	**54,2**	**0,0**	**4,0**	**11,1**	**0,3**	**3,6**	**73,2**	**72,6**	**0,6**	**0,9**
Mineralische Produkte	18,5						18,5	18,6	**-0,1**	**-0,7**
Chemische Industrie	16,8	0,0	4,0				20,8	20,1	**0,7**	**3,2**
Herstellung von Metall	19,0	0,0	0,0				19,0	18,8	**0,2**	**1,0**
Lösemittel- und Produktverwendung	**1,6**		**0,2**				**1,8**	**1,9**	**-0,07**	**-3,9**
Landwirtschaft		**25,5**	**42,8**				**68,3**	**67,5**	**0,8**	**1,2**
Abfallwirtschaft		**8,8**	**2,7**				**11,5**	**12,2**	**-0,7**	**-5,8**
Insgesamt 2011	**799,7**	**46,0**	**55,9**	**11,1**	**0,3**	**3,6**	**916,7**			
Insgesamt 2010	819,0	47,7	54,7	11,4	0,3	3,4	936,5			
Änderungen zu 2010 nach THG, absolut	**-19,3**	**-1,7**	**1,2**	**-0,3**	**0,0**	**0,2**	**-19,8**			
Änderungen zu 2010 nach THG, relativ (in %)	**-2,4**	**-3,5**	**2,3**	**-2,2**	**0,0**	**4,8**	**-2,1**			

© UBA Emissionssituation
Stand: 22.03.2012