

Belgium

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1. SOURCES OF INFORMATION

Belgium's national report submitted under the Monitoring Mechanism, Decision 280/2004/EC. Report dated 15 March 2007.

Draft Belgian National Allocation Plan for CO₂-emission allowances 2008-2012, September 2006, plan submitted to the European Commission.

The European Community's initial report under the Kyoto Protocol - Report to facilitate the calculation of the assigned amount of the European Community pursuant to Article 3, paragraphs 7 and 8 of the Kyoto Protocol (Submission to the UNFCCC Secretariat), EEA Technical report No 10/2006.

European Climate Change Programme (ECCP), Database on Policies and Measures in Europe <http://www.oeko.de/service/pam/index.php>

Personal communications from Departement Leefmilieu, Natuur en Energie, and Federal Public Service for Health, Food Chain Safety and the Environment, July 2007.

Base-year emissions

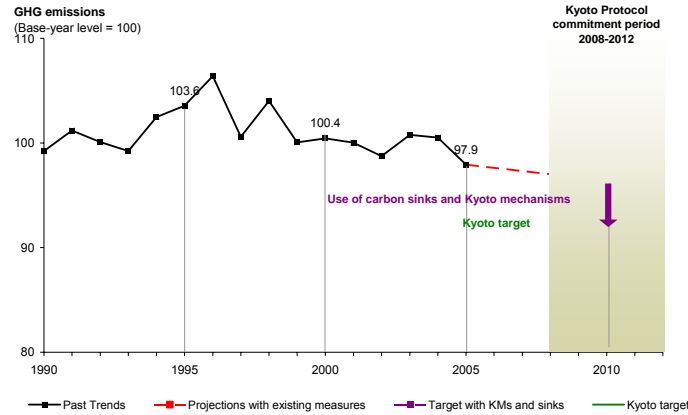
Base-year emissions of greenhouse gases are calculated using 1990 emissions for carbon dioxide (CO₂), methane (CH₄) and nitrous oxide (N₂O) and 1995 emissions for fluorinated gases (SF₆, HFCs and PFCs).

Base-year data is as reported by Member States in the sources noted above. Base year data is consistent with data reported in *The European Community's initial report under the Kyoto Protocol - Report to facilitate the calculation of the assigned amount of the European Community pursuant to Article 3, paragraphs 7 and 8 of the Kyoto Protocol (Submission to the UNFCCC Secretariat)*, EEA Technical report No 10/2006. This data is currently undergoing a review procedure by UNFCCC and is therefore subject to change.

2. SUMMARY

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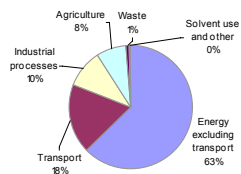
Share in total EU-15 GHG emissions 2005	3.4 %
Emissions base year (initial report)	146.9 Mt
Emissions 2005	143.8 Mt
Emissions base year (for projections)	146.8 Mt
Projections 2010 with existing measures	141.6 Mt
Projections 2010 with additional measures	141.6 Mt
Kyoto target (absolute)	135.9 Mt
Kyoto target (% from base year)	- 7.5 %
Change base year to 2005	- 2.1 %
Change 2004-05	- 2.6 %
Change base year to 2010 with existing measures	- 3.6 %
Change base year to 2010 with additional measures	- 3.6 %
Distance to linear target path 2005+0.0 (+3.6) percent points	
Use of Kyoto mechanisms	7.0 Mt
Sinks (Articles 3.3. and 3.4)	n.a.
Emissions in 1990 (Article 3.7)	n.a.



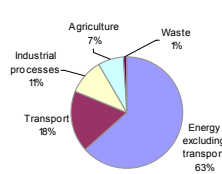
Past emissions: Belgium's GHG emissions were 2.6 % below those of 2004 and 2.1 % below base-year levels in 2005. The main factor for decreasing emissions with regard to the previous year was a decline in iron and steel production and decreasing emissions from road transport. Between 1990 and 2005, emission decreases from industry (in particular iron and steel and production of halocarbons) and from landfills were partly offset by emission increases from transport households and services.

Emission projections: Emissions in 2005 were one percentage point above the level projected in the 'with existing measures' scenario for 2010. Belgium will not achieve the Kyoto target with domestic measures (Belgium did not provide an additional measure projection). However, using the Kyoto mechanisms - Belgium plans to purchase Kyoto units of 7.0 million tonnes for each year of the commitment period - Belgium projects to reach the Kyoto target .

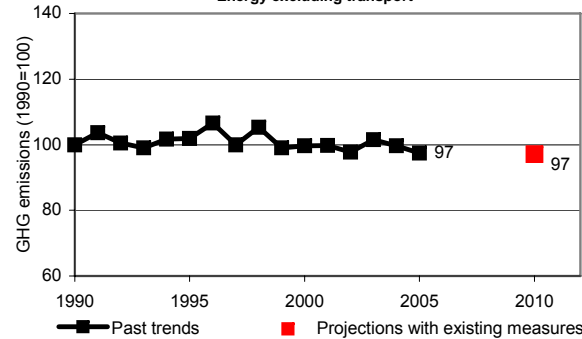
Emissions by sectors (2005)



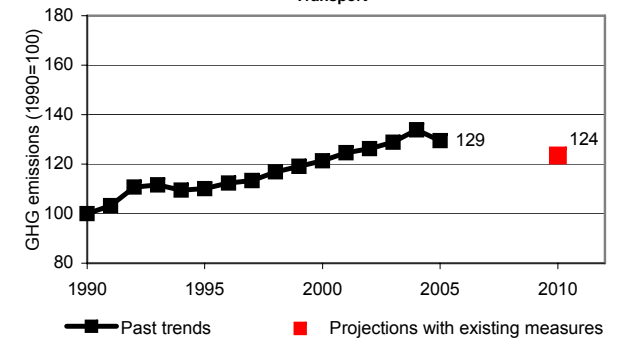
Emissions by sectors (2010)

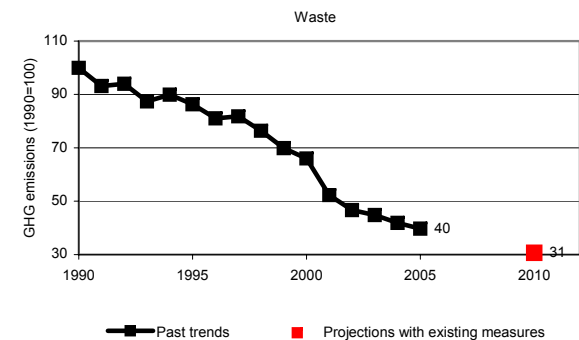
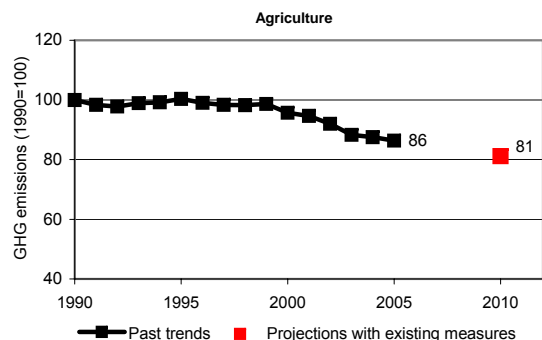
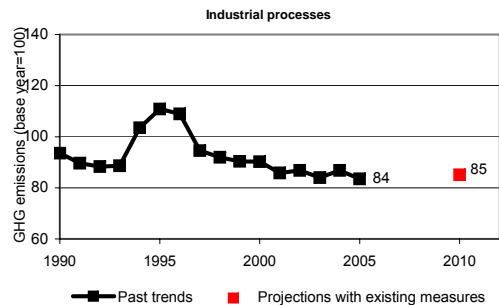


Energy excluding transport



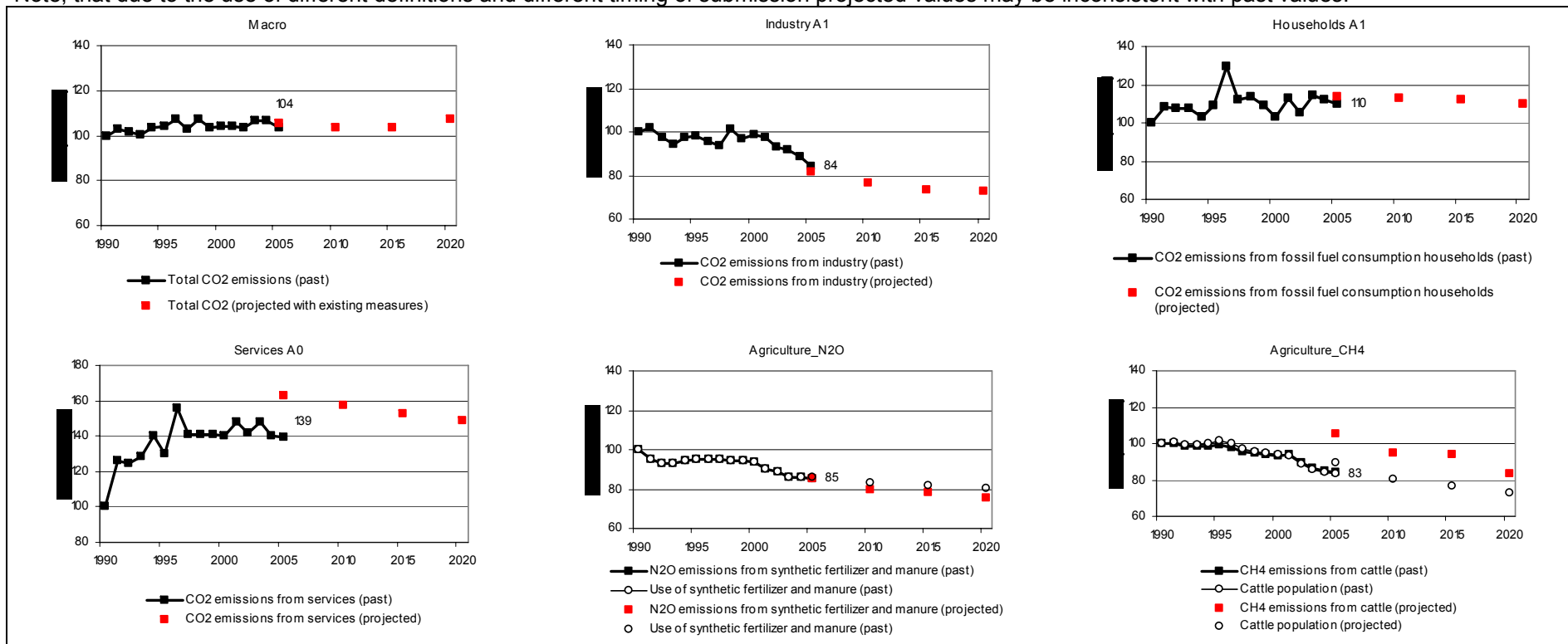
Transport

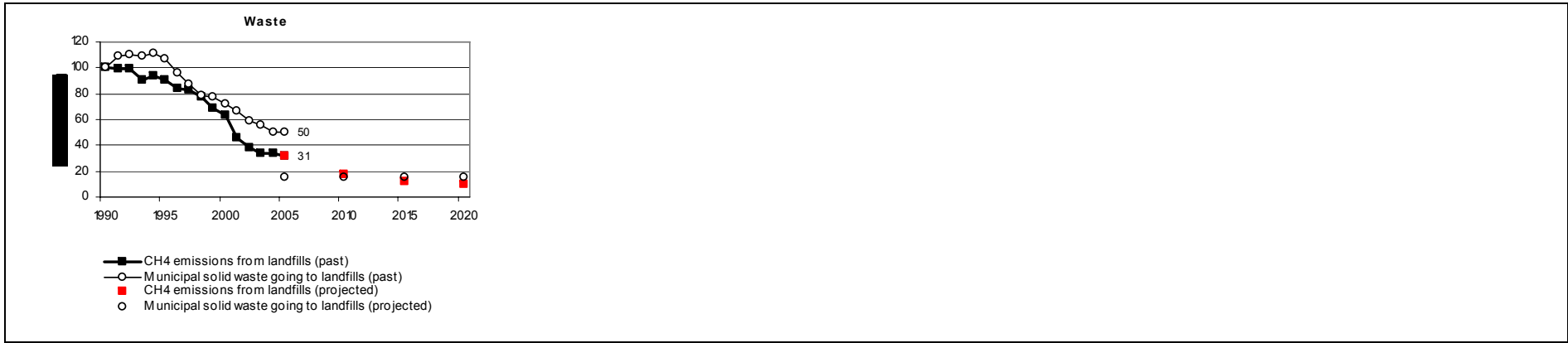




3. REPORTED INDICATORS

Note, that due to the use of different definitions and different timing of submission projected values may be inconsistent with past values.





Priority Indicators		1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
Macro	Total CO ₂ emissions, kt	119,081	122,300	120,755	119,354	122,880	123,658	127,691	122,203	127,972	122,942	124,053	124,155	123,325	127,312	126,748	123,329
	GDP, Bio Euro (EC95)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	267	293
Macro B0	CO ₂ emissions from energy consumption, kt	110,044	113,912	112,555	111,221	113,370	113,644	118,338	112,539	118,198	112,826	113,858	114,569	113,203	117,109	116,491	113,522
	GDP, Bio Euro (EC95)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	267	293
Transport C0	CO ₂ emissions from passenger cars, kt	-	-	-	-	-	-	-	-	-	-	-	-	-	-	15,370	14,928
	Number of kilometres by passenger cars, Mkm	-	-	-	-	-	-	-	-	-	-	-	-	-	-	94,080	77,980
Industry A1	CO ₂ emissions from industry, kt	32,852	33,485	31,968	30,876	31,937	32,126	31,462	30,781	33,173	31,714	32,514	32,070	30,500	30,243	29,161	27,682
	Gross value-added total industry, Bio Euro (EC95)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	62	57
Households A1	CO ₂ emissions from fossil fuel consumption households, kt	20,213	21,883	21,779	21,735	20,877	22,084	26,100	22,591	22,933	22,059	20,845	22,788	21,209	23,135	22,659	22,166
	Stock of permanently occupied dwellings, 1000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4,249
Services A0	CO ₂ emissions from fossil fuel consumption in commercial and institutional sector, kt	4,272	5,395	5,309	5,474	5,975	5,544	6,656	6,018	6,024	6,027	5,981	6,307	6,063	6,318	5,978	5,958
	Gross value-added services, Bio Euro (EC95)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	173	172
Transformation B0	CO ₂ emissions from public and autoproducer thermal power stations, kt	-	-	-	-	-	-	-	-	-	-	-	-	-	-	23,822	24,624
	All products - output and autoproducer thermal power stations, PJ	-	-	-	-	-	-	-	-	-	-	-	-	-	-	125	127

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Additional Priority Indicators		1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
Transport D0	CO ₂ emissions from freight transport on road, kt	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	9,138
	Freight transport on road, Mtkm	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	52,537
Industry A1.1	Total CO ₂ emissions from iron and steel, kt	16,159	15,852	14,784	13,635	14,375	14,664	13,919	12,611	14,446	13,833	14,312	13,955	13,566	13,504	12,667	11,005
	Gross value-added - iron and steel industry, Bio Euro (EC95)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	7
Industry A1.2	Energy related CO ₂ emissions chemical industries, kt	6,311	6,225	6,279	6,561	7,301	7,580	7,584	8,231	8,913	8,496	8,562	8,390	7,798	7,715	7,634	7,781
	Gross value-added - chemical industry, Bio Euro (EC95)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	10
Industry A1.3	Energy related CO ₂ emissions - glass pottery and building materials industry, kt	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5,310
	Gross value added - glass pottery and building materials industry, Bio Euro (EC95)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2
Industry C0.1	Total CO ₂ emissions from iron and steel, kt	16,159	15,852	14,784	13,635	14,375	14,664	13,919	12,611	14,446	13,833	14,312	13,955	13,566	13,504	12,667	11,005
	Production of oxygen steel	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	7,775
Industry C0.2	Energy related CO ₂ emissions from glass, pottery and building materials, kt	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5,310
	Cement production, kt	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6,587

Supplementary Indicators		1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
Transport B0 (diesel)	CO ₂ emissions of diesel-driven cars, kt	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Number of km, of diesel-driven passenger cars, Mio km	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Transport (B0) (petrol)	CO ₂ emissions of petrol-driven cars, kt	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Number of km, of petrol-driven passenger cars, Mio km	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Transport C0	CO ₂ emissions from passenger cars, kt	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Passenger transport by cars, Mpkm	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Transport E1	CO ₂ emissions from domestic air transport, kt	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Domestic air passenger, Mio	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Industry A1.4	Energy related CO ₂ emissions food industry, kt	2,998	2,556	2,443	2,547	2,725	2,823	2,435	2,204	2,340	2,154	2,137	2,191	2,427	2,300	2,289	2,190
	Gross Value Added food, drink and tobacco industry, Mio EUR (EC95)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Industry A1.5	Energy related CO ₂ emissions - paper and printing industry, kt	637	823	877	792	709	752	596	700	744	697	730	730	755	660	607	605
	Gross value added paper and printing industry, Mio EUR (EC95)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Households A0	Surface area of permanently occupied dwellings, Mio m ²	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Specific CO ₂ emissions of households for space heating, t/m ²	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Services B0	CO ₂ emissions from space heating in commercial and institutional, kt	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Surface area of services buildings, Mio m ²	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Transformation D0	CO ₂ emissions from public thermal power stations, kt	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	All products output by public thermal power stations, PJ	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Transformation E0	CO ₂ emissions from autoproducer, kt	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	All products output by autoproducer thermal power stations, PJ	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Transformation	CO ₂ emissions from classical power production, kt	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	All products output by public and autoproducer power stations, PJ	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Transport	CO ₂ emissions from transport, kt	19,947	20,590	22,083	22,209	21,749	21,828	22,254	22,462	23,128	23,476	23,937	24,556	24,885	25,420	26,418	25,517
	Total final energy consumption from transport, PJ	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Industry	Energy related CO ₂ emissions paper and printing industries, kt	637	823	877	792	709	752	596	700	744	697	730	730	755	660	607	605
	Physical output of paper, kt	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Industry	CO ₂ emissions from the industry sector	32,852	33,485	31,968	30,876	31,937	32,126	31,462	30,781	33,173	31,714	32,514	32,070	30,500	30,243	29,161	27,682
	Total final energy consumption from industry, PJ	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Households	CO ₂ emissions from households, kt	20,213	20,213	21,883	21,779	21,735	20,877	22,084	26,100	22,591	22,933	22,059	20,845	22,788	21,209	23,135	22,659
	Total final energy consumption from households, PJ	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

4. OVERVIEW OF CCPM IMPLEMENTATION IN BELGIUM

Table 1. Information provided on the implementation of policies and measures

Sector	CCPM	Status
Cross-cutting	Kyoto Protocol project mechanisms 2004/101/EC	N
Cross-cutting	Emissions trading 2003/87/EC	N
Cross-cutting	Integrated pollution prevention and control 96/61/EC	N
Energy supply	Promotion of cogeneration 2004/8/EC	B
Energy supply	Taxation of energy products 2003/96/EC	N
Energy supply	Internal electricity market 2003/54/EC	N
Energy supply	Promotion of electricity from RE sources 2001/77/EC	N
Energy supply	Internal market in natural gas 98/30/EC	N
Energy supply	Emissions from large combustion plants (2001/80/EC)	N
Energy consumption	Directives on energy labelling of appliances	N
Energy consumption	End-use efficiency and energy services 2006/32/EC	
Energy consumption	Ecodesign requirements for energy-using products 2005/32/EC	
Energy consumption	Energy performance of buildings 2002/91/EC	N
Energy consumption	Eco-management & audit scheme (EMAS) EC 761/2001	N
Energy consumption	Energy-efficiency labelling for office equipment Regulation No. 2422/2001	
Energy consumption	Efficiency fluorescent lighting 2000/55/EC	
Energy consumption	Efficiency of hot water boilers 92/42/EEC	N
Transport	Environmental performance freight transport (Marco Polo Programme)	
Transport	Motor challenge, voluntary EC programme	
Transport	Promotion of biofuels for transport 2003/30/EC	N
Transport	Integrated European railway area (2nd + 3rd Railway package) (COM(2002)18 final)	
Transport	Transport modal shift to rail 2001/12/EC etc.	N
Transport	Consumer information on cars 1999/94/EC	N
Transport	Agreement with car manufacturers ACEA etc.	N
Industrial Process	F-gas regulation (Regulation No 842/2006)	R/N
Industrial Process	Industrial Process: HFC emissions from air conditioning in motor vehicles 2006/40/EC	N
Agriculture	Support under CAP (1782/2003)	B
Agriculture	Support under CAP - amendment (1783/2003)	B
Agriculture	Nitrates 91/676/EEC	N
Agriculture	Transition to rural development support No 2603/1999	N
Agriculture	Support for rural development from the European Agricultural Guidance and Guarantee Fund (1257/1999)	N
Agriculture	Emission by engines to power agricultural or forestry 2000/25/EC	N
Waste	Directive on waste 2006/12/EC	

Waste	Landfill directive 1999/31/EC	B
Waste	Packaging and packaging waste (Directive 94/62/EC, 2004/12/EC, 2005/20/EC)	

*Legend****New** national PAM implemented after CCPM was adopted**Existing national PAM **re-enforced** by CCPM**National PAM already in force **before** CCPM was adopted**Not reported*

N
R
B

Source: MS responses to the CCPMs questionnaire, 2005. Personal communications.

5. COMPLETENESS OF REPORTING

Table 2. Information provided on policies and measures

Information provided	Level of information provided	Comments
Policy names	+++	Clear names provided
Objectives of policies	+++	Good description of objectives
Which greenhouse gases?	+++	Specifies gas or gases for each PAM; all gases covered
Status of Implementation	++	Status clear for most PAMs: implemented or planned.
Implementation body specified	++	Report names several regional/federal bodies involved but not per PAM.
Quantitative assessment of implementation	+	Very little quantification of PAMs in Monitoring Mechanism submission. NAP report allows calculation of “without measures” – “with measures”.
Interaction with other policies and measures discussed	0	CCPMs described in section 3 of report but no cross-reference to regional/national PAMs.

Table 3. Information provided on projections

Category of Information	Level of information provided	Comments
Scenarios considered	++	“With measures” given across time series 2000, 2005, 2010, 2015, 2020. “With additional measures” only provided for 2020.
Expressed relative to base year	+	Apart from the base year total, only 2000 ‘reference year’ emissions are given. The base year should be 1995 for F gases and 1990 for other gases.
Starting year	2000	‘Reference year’ for projections
Split of projections	++	“With measures” split by all gases (F-gases together) and sectors. “With additional measures” only provided for 2020 and sector format different to “With measures”.
Presentation of results	++	Not consistent between “With measures” and “With additional measures”.
Description of model (level of detail, approach and assumptions)	+++	Annex 1 of the MM report provides a thorough description of the three models (two regional bottom-up models and one national econometric model). No description of the F gas model.
Sensitivity analysis (key inputs to model / high, central and low projections scenarios / robustness of model)	++	Sensitivity analysis was carried out for CO ₂ emissions in 2020, to give a range of CO ₂ projections. Not given: key inputs to model / high, central and low projections scenarios /

		robustness of model.
Discussion of uncertainty	+	Not quantified for individual gases or sectors. Some discussion within CO ₂ sensitivity analysis and overall levels of uncertainty arising from this analysis.
Details of parameters and assumptions	++	Many assumptions are given in the report but are not provided in format of mandatory and recommended parameters.

6. ASSESSMENT OF POLICIES AND MEASURES

Table 4. Summary of the effect of policies and measures included in the 2010 projections (Mt CO₂-eq.)

	With measures	With additional measures
Energy (total, excluding transport)	12.3	
Energy supply	8.3	
Energy – industry, construction		
Energy – other (commercial, residential, agriculture)	4.0	
Transport (energy)	4.9	
Industrial processes	6.4	
Waste		
Agriculture	1.0	
Cross-sectoral		
Total (excluding LULUCF)	24.6	

There is very little quantification of the effect of policies and measures in 2010 in the Monitoring Mechanism submission, apart from at the overall regional and national scale.

However the NAP provides a "without measures" and "with measures" quantification of emission reductions from policies and measures in the regional and federal climate action plans. The effect of PAMs can thus be obtained by "without measures" minus "with measures".

Table 5. Detailed information on policies and measures

(Where no projection scenario information was reported for a policy or measure, the status field was used to decide which projection scenario it should be included in. A status of implemented, adopted, expired or a blank field was assumed to belong to the “with measures” projection. If the status is reported as planned the policy or measure is included in the “with additional measures” projection scenario)

Policies and measures in the “with measures” projection

<u>Sector</u>	Projection Scenario	Name	Type	GHG	Status	Absolute Reduction			<u>Costs</u>
						[kt CO ₂ eq. p.a.]			<u>[EUR/t]</u>
						2005	2010	2020	
Cross-cutting		Kyoto Flexible Mechanism	Economic Regulatory	CH ₄ CO ₂ N ₂ O	implemented				
Cross-cutting		National Allocation Plan	Regulatory	CO ₂	implemented				
Industrial Processes									
Energy supply		Green Certificate Schemes	Fiscal Regulatory	CH ₄ CO ₂	implemented				
Energy supply		Support for electricity generation from CHP	Fiscal Regulatory	CO ₂	implemented				
Energy supply		Support for electricity generation from RES and CHP	Fiscal Regulatory	CH ₄ CO ₂	implemented				
Energy supply		Demonstration projects, information actions and facilitators to promote RES and CHP	Education Information	CH ₄ CO ₂	implemented				
Energy supply		Production of green heat	Fiscal	CH ₄ CO ₂	implemented				
Energy supply		Wood energy plan	Economic Research	CO ₂	implemented				
Forestry									
Energy consumption		Financial incentives for investments in energy efficiency	Fiscal	CO ₂	implemented				
Industrial Processes									
Agriculture		Public service obligation on rational use of	Fiscal	CO ₂	implemented				

Energy consumption	energy	Regulatory			
Energy consumption	Energy-efficiency in the industrial sectors	Voluntary/ negotiated agreement	CH ₄	implemented	
Energy consumption	Promotion of Rational use of Energy with local authorities	Economic Information	CO ₂	implemented	
Transport	Implementation of the European Biodiesel Directive	Regulatory	CO ₂		
Transport	Promotion of public transport for daily mobility - Free train service for commuters	Fiscal Information	CH ₄ CO ₂ N ₂ O	implemented	
Transport	Improvement of multimodal systems - Subsidies for freight transport by rail	Fiscal	CO ₂ N ₂ O	implemented	
Transport	Reduction of vehicle emissions - Tax cut for the purchase of clean vehicles	Fiscal	CH ₄ CO ₂ N ₂ O	implemented	
Transport	Improvements of the quality of public transport - Regional level	Economic Information	CO ₂ N ₂ O		
Transport	Improvements of the quality of public transport	Planning	CO ₂ N ₂ O	implemented	
Transport	Promotion of public transport for daily mobility	Fiscal	CO ₂ N ₂ O		
Transport	Promotion of public transport for daily mobility - Extension of the tax deduction for expenses incurred for home-work travel when using alternative transport	Fiscal	CO ₂ N ₂ O		
Transport	Promotion of public transport for daily mobility - Tax deduction for collective transport organised by private companies	Fiscal	CO ₂ N ₂ O		
Transport	Implementation of transport mobility plans (schools and business) - FR	Planning	CO ₂ N ₂ O	implemented	

Transport	Implementation of transport mobility plans - WR	Voluntary/ negotiated agreement	CO ₂ N ₂ O	implemented
Transport	Promotion of bicycle use - WR, FR, Brussels region	Information Planning	CO ₂ N ₂ O	
Transport	Improvement of multimodal systems - Improvement of transport infrastructure around the Port of Antwerp	Planning	CO ₂ N ₂ O	implemented
Transport	Promotion of public transport for daily mobility - Analysis of travel between home and workplace	Information	CO ₂ N ₂ O	implemented
Transport	Improvement of multimodal systems - WR	Information	CO ₂ N ₂ O	
Transport	Improvement of multimodal systems - Intermodal platform Brussels	Information	CO ₂ N ₂ O	
Transport	Reduction of vehicle emissions - Modulation of the road tax	Fiscal	CH ₄ CO ₂ N ₂ O	implemented
Transport	Reduction of vehicle emissions - Promotion of LPG vehicles	Fiscal	CH ₄ CO ₂ N ₂ O	
Transport	Reduction of vehicle emissions - Promotion of renewal of the car fleet	Fiscal	CH ₄ CO ₂ N ₂ O	
Transport	Reduction of vehicle emissions - CO2 guide	Education	CH ₄ CO ₂ N ₂ O	implemented
Transport	Traffic regulation	Economic	CO ₂	implemented

		Planning	N ₂ O	
Transport	Improvements to public transport (Walloon Region)	Economic Information	CO ₂ N ₂ O	implemented
Transport	Promotion of bicycle use - Stop Principle and Bike Plan	Planning	CO ₂ N ₂ O	implemented
Transport	Green procurement rules for public service vehicle fleets	Planning	CO ₂ N ₂ O	implemented
Transport	Eco-driving Campaign	Education	CO ₂ N ₂ O	implemented
Transport	Car Sharing	Planning	CO ₂ N ₂ O	implemented
Transport	Improvements of multimodal systems - Flanders Mobility Plan	Planning	CO ₂	
Transport	Reduction of vehicle emissions - Taxation of company cars	Fiscal	CH ₄ CO ₂ N ₂ O	implemented
Transport	Reduction of vehicle emissions - Gentlemen's agreement with car manufacturers	Voluntary/ negotiated agreement	CH ₄ CO ₂ N ₂ O	implemented
Transport	Reduction of vehicle emissions - FR, BCR	Information	CH ₄ CO ₂ N ₂ O	implemented
Transport	Promotion of public transport for daily mobility - WR, BCR	Economic Planning	CO ₂ N ₂ O	implemented
Transport	Implementation of transport/mobility plans (School, business) - BCR	Planning	CO ₂ N ₂ O	implemented
Transport	Mobility plans at local level	Planning	CO ₂	implemented

		Voluntary/ negotiated agreement	N ₂ O	
Transport	Optimal road traffic management	Planning	CO ₂	implemented
			N ₂ O	
Transport	Implementation of biofuel directive	Economic Fiscal Regulatory	CO ₂	implemented
Transport	Model shift in freight transport		CO ₂	implemented
Industrial Processes	-		CO ₂	
	-		N ₂ O	
Energy consumption Industrial Processes	Energy audits	Fiscal Information	CO ₂	implemented
Energy consumption	Financial incentives for the rational use of energy	Fiscal	CO ₂	implemented
Energy consumption	Energy performance and certification of buildings	Regulatory	CO ₂	implemented
Energy consumption	Rational use of Energy (RUE) in public Buildings	Economic Information	CO ₂	implemented
Energy consumption Transport	Promotion of Rational use of Energy with local authorities	Economic Information	CO ₂	implemented
Energy consumption	Labelling of appliances	Regulatory	CO ₂	implemented
Energy consumption	Energy performance targets in public housing and the medical – social sector	Regulatory	CO ₂	implemented
Energy consumption	Accreditation of energy experts	Regulatory	CO ₂	implemented
Energy consumption	Modernisation of school infrastructure	Fiscal	CO ₂	implemented
Energy consumption	I02: Energy efficiency criteria in the environmental permits	Regulatory	CO ₂	implemented
Energy consumption	Energy-efficiency in the industrial sectors	Voluntary/	CH ₄	implemented

Industrial Processes		negotiated agreement	CO ₂	
			N ₂ O	
Energy consumption	Promotion of Rational use of Energy with local authorities	Economic	CO ₂	implemented
Transport		Information		
Cross-cutting	National Allocation Plan	Regulatory	CO ₂	implemented
Industrial Processes				
Energy consumption	Financial incentives for investments in energy efficiency	Fiscal	CO ₂	implemented
Industrial Processes				
Energy consumption	Energy-efficiency in the industrial sectors	Voluntary/ negotiated agreement	CH ₄	implemented
Industrial Processes			CO ₂	
			N ₂ O	
Energy consumption	Energy audits	Fiscal	CO ₂	implemented
Industrial Processes		Information		
Energy consumption	Energy-efficiency in the industrial sectors	Voluntary/ negotiated agreement	CH ₄	implemented
Industrial Processes			CO ₂	
			N ₂ O	
Industrial Processes	Covenant to reduce N2O emissions by the chemical industry	Voluntary/ negotiated agreement	N ₂ O	implemented
Industrial Processes	Reducing industrial emissions of fluorinated greenhouse gases	Economic	HFC	implemented
		Regulatory	PFC	
			SF ₆	
Agriculture	Council Regulation (EC) No 1782/2003 of 29 September 2003 establishing common	Economic	CH ₄	implemented
			CO ₂	

	rules for direct support schemes under the common agricultural policy and establishing certain support schemes for farmers and amending Regulations (EEC) No 2019/93, (EC) No 1452/2001, (EC) No 1453/2001, (EC) No 1454/2001, (EC) 1868/94, (EC) No 1251/1999, (EC) No 1254/1999, (EC) No 1673/2000, (EEC) No 2358/71 and (EC) No 2529/2001		Economic	N ₂ O	
Agriculture	FR: Rural development programme	Economic	CH ₄ CO ₂ N ₂ O		600
Agriculture	WR: Rural Development Plan	Economic	CH ₄ N ₂ O		
Agriculture	Agri-environmental measures	Regulatory	CH ₄ CO ₂ N ₂ O	implemented	
Agriculture	Limitation/reduction of methane and NO₂ emissions (WR)	Economic	CH ₄ N ₂ O	planned	
Agriculture	CO₂ savings in greenhouse horticulture	Economic Regulatory	CO ₂	implemented	
Agriculture	Limitation/reduction of methane and NO₂ emissions (FR)	Regulatory	CH ₄ N ₂ O	implemented	
Agriculture Energy consumption	Public service obligation on rational use of energy	Fiscal Regulatory	CO ₂	implemented	
Agriculture Forestry	Production of renewable energy and biofuels	Research	CO ₂	implemented	
Energy supply Forestry	Wood energy plan	Economic Research	CO ₂	implemented	
Forestry	Measures for encouraging reforestation and prohibition of deforestation	Regulatory	CO ₂	implemented	

Forestry	Preservation of the ecological stability of forests (Walloon region)	Regulatory	CO ₂	implemented
Forestry	Preservation of the ecological stability of forests (Flemish region)	Economic	CO ₂	implemented
Forestry	Harmonisation of forest and climate policies (Flemish region)	Regulatory	CO ₂	implemented
Agriculture Forestry	Production of renewable energy and biofuels	Research	CO ₂	implemented
Waste	Improvement of energy efficiency of existing and new incineration plants	Regulatory	CO ₂	implemented
Waste	Maintenance of elimination obligations and reinforcement of regulations on the use of gas from landfills	Regulatory	CH ₄ CO ₂	implemented

Policies and measures in the “with additional measures” projection

Sector	Projection Scenario	Name	Type	GHG	Status	Absolute Reduction			Costs
						[kt CO ₂ eq. p.a.]			[EUR/t]
						2005	2010	2020	
Energy consumption		Extended maintenance of heating appliances	Regulatory	CO ₂	planned				
Transport		Reduction in vehicle emissions - Clean vehicles for the public services	Regulatory	CH ₄ CO ₂ N ₂ O	planned				
Transport		Improvement of multimodal systems - Marco Polo Programme	Planning	CO ₂	planned				
Transport		Improvement of multimodal systems - Diabolo Plan	Planning	CO ₂	planned				
Transport		Teleworking	Economic Fiscal Information	CH ₄ CO ₂ N ₂ O	planned				

Source: Öko Institut, (accessed 13 June and 18 July 2007), ECCP Policies and Measures database, <http://www.oeko.de/service/pam/index.php>

7. EVALUATION OF PROJECTIONS

The Monitoring Mechanism report did not provide a base year split by gas or by sector - only a "Reference year 2000 (inventory)". However the splits were provided by the Departement Leefmilieu, Natuur en Energie in personal communications, July 2007.

"With additional measures" projections are only provided for 2020, not 2010.

Table 6. Summary of projections by gas in 2010 (Mt CO₂-eq.)

	Base-year	With measures	With additional measures
Carbon dioxide (excl. LULUCF)	119.081	122.985	NE
Methane	10.825	6.907	NE
Nitrous oxide	12.010	9.878	NE
F-gases	4974	1.854	NE
Total (excl. LULUCF)	146.891	141.624	NE
% change relative to base year (excl. LULUCF)		-3.6%	

Table 7. Summary of projections (6 gas basket) by sector in 2010 (Mt CO₂-eq.)

	Base-year	with measures	% change relative to base-year	with additional measures	% change relative to base-year
Energy (total, excluding transport)	92.326	89.685	-3%	NE	NE
Energy supply	30.076	31.160	4%	NE	NE
Energy – industry, construction ¹	33.949	25.891	-24%	NE	NE
Energy – other (commercial, residential, agriculture) ²	28.301	32.633	15%	NE	NE
Transport (energy)	20.402	25.203	24%	NE	NE
Industrial processes ³	17.768	15.122	-15%	NE	NE
Waste	3.351	1.027	-69%	NE	NE
Agriculture	13.043	10.588	-19%	NE	NE
Total (excl. LULUCF)	146.891	141.625	-3.6%	NE	NE

¹ Includes fugitive emissions from fuels (cat. 1B)

² Includes the emissions from 1A5 Other

³ Includes the emissions from Solvents and other Product use (Cat 3)

Table 8. Summary of projections by sector and by gas in 2010 (Mt CO₂-eq.) compared to base-year emissions

	Carbon dioxide			Methane			Nitrous oxide			F-gases (SF ₆ , HFCs and PFCs)		
	Base-year	With measures	With additional measures	Base-year	With measures	With additional measures	Base-year	With measures	With additional measures	Base-year	With measures	With additional measures
Energy (excl. transport)	90.183	87.898	NE	0.756	0.520	NE	1.388	1.267	NE	0	0	NE
Transport (energy)	19.947	24.283	NE	0.102	0.037	NE	352	0.883	NE	0	0	NE
Industrial processes	8.614	10.693	NE	0	0.044	NE	4.180	2.531	NE	4.974	1.854	NE
Waste	0.337	0.111	NE	2.721	0.569	NE	0.293	0.347	NE	0	0	NE
Agriculture	0	0	NE	7.245	5.737	NE	5.798	4.851	NE	0	0	NE
Total (excl. LULUCF)	119.081	122.985	NE	10.825	6.907	NE	12.010	9.879	NE	4.974	1.854	NE

Figure 1. Share by sector of 2010 greenhouse gas emissions according to the “with measures” projection

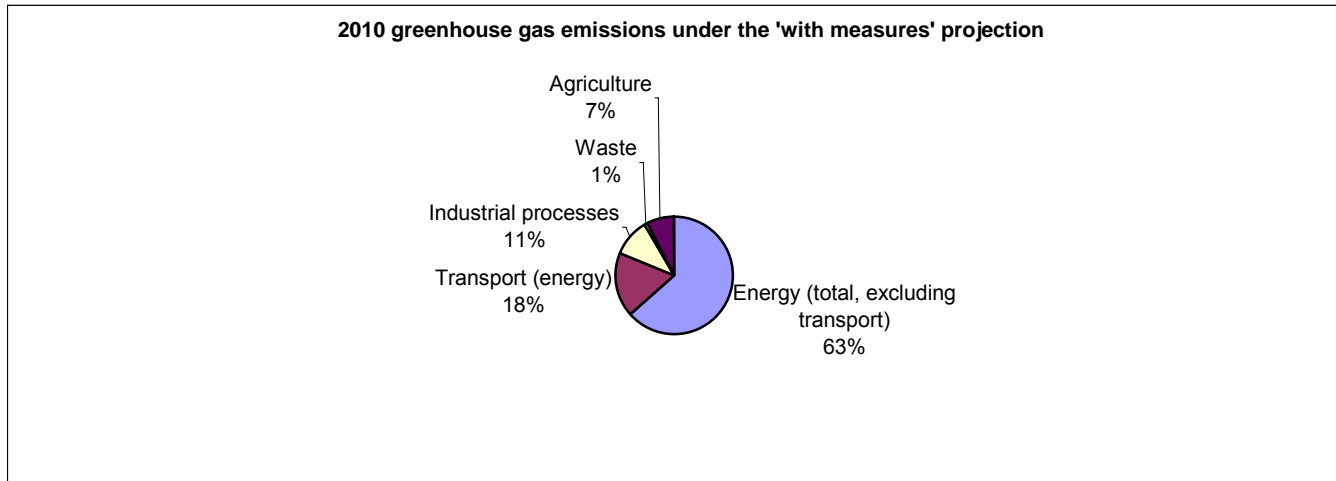


Table 9. Summary of projections (6 gas basket) in 2010, 2015 and 2020 (Mt CO₂-eq.)

	Base year*	2010	2010, % of base year level	2015	2015, % of base year level	2020	2020, % of base year level
Total (excluding sinks)	146.891	141.625	96.4%	141.575	96.4%	138.630	94.4%

* Base year is 1990 for all gases except 1995 for F-gases
 2010 and 2015 projections are "with measures"; 2020 projection is "with additional measures" (2020 "with measures" is 145.830)

Table 10. Assessment of the target (6 gas basket), with a comparison of 2010 projections in 2005, 2006 and 2007 national reports

	Emissions in MtCO ₂ -equiv., excluding LUCF			
	2010 projections from 2005	2010 projections from 2006	2010 projections from 2007	2010 projections from 2007 % of base-year level
Base year emissions used for projections	144	146.9	146.891*	100%
Kyoto Commitment/burden sharing	133.2	135.9	135.874	-7.5%
With existing P&Ms projections	148.4	148.5	141.624	96.4%
Gap (-ve means overachievement of target)	15.3	12.6	5.750	3.9%
With additional P&Ms projections	141.7	145.7	141.624	96.4%
Remaining gap	8.5	9.8	5.750	3.9%
Effect of flexible mechanisms	8.4	8.6	7.040	4.8%
Remaining gap (with use of flexible mechanisms)	0.1	1.2	-1.290	-0.9%

Above table excludes LULUCF. LULUCF will be covered in the main report, based on the questionnaire submissions

Source for 2005 data is 2005 Monitoring Mechanism submission. Sources for 2006 data are 4th National Communication and Demonstrable Progress Report, both submitted January 2006.

* Base year data is consistent with data reported in *The European Community's initial report under the Kyoto Protocol - Report to facilitate the calculation of the assigned amount of the European Community pursuant to Article 3, paragraphs 7 and 8 of the Kyoto Protocol (Submission to the UNFCCC Secretariat)*, EEA Technical report No 10/2006 (146.891 MtCO₂-eq). This data is currently undergoing a review procedure by UNFCCC and is therefore subject to change.

Table 11. Comparison with projections for the trading sector (EU ETS)

	Monitoring Mechanism projections	NAP 2 projections	Difference
Energy sector	63.79 ^a	52.83	--
Energy sector included in EU ETS	--	20.40	--
Industry sector	41.01 ^d	62.99	--
Industry sector included in EU ETS	--	50.98	--
Total Energy & Industry	104.8	115.82	110.5%

^a Included are all GHG emissions from the "Energy supply" and "Energy – other (commercial, residential, agriculture)" sector

^b Included are all GHG emissions from "Energy generation" (which includes energy use by industry), "Commercial and institutional, Residential and Agricultural energy use" and "All other sectors"

^c Included are CO₂ emissions from the ETS sectors "Energy generation" (which includes energy use by industry), "Commercial and institutional, Residential and Agricultural energy use" and "All other sectors"

^d Included are all GHG emissions from the "Energy - industry, construction" and "Industrial processes" sectors (including also "Solvent and other product use")

^e Included are all GHG emissions from the sector "Industrial processes"

^f Included are CO₂ emissions from the sector "Industrial processes"

Table 11 provides a comparison of projections in the Monitoring Mechanism submission (MMS) and National Allocation Plan (NAP). The NAP "Total Energy & Industry" is higher because these projections do not include the effect of the EU ETS (8.24 MtCO₂-eq.), whereas they are included in the "with measures" scenario of the MMS. This accounts for most of the difference. The differences in "Energy sector" and "industry sector" are mainly due to the different allocation of emissions from Combined Heat and Power plants (CHP): the projections in the MMS include all CHP emission under the energy sector, while the NAP2 projections allocate the CHP emissions to those sectors that effectively operate the CHP.

8. DESCRIPTION OF MODELLING APPROACH

Overview of modelling approach

Annex 1 of Belgium's Monitoring Mechanism report contains a thorough description of the three models used for projections: the regional projections were calculated using a bottom-up approach (using the MARKAL and EPM models), in which there is no direct link between the calculated projections and the macro-economic context. The Belgian national projections reported in the Monitoring Mechanism report are the sum of the regional projections. The national projections were validated through a comparison with a top-down econometric model HERMES.

A separate model developed by ECONOTEC and VITO was used for F gas projection modelling. No description of the model is provided in the report.

Sensitivity analysis

A sensitivity analysis of the 'with measures' CO₂ emission projections in 2020 was carried out. The results are presented in terms of a range of CO₂ projections rather than high, central and low projection scenarios.

The main variables identified in the sensitivity analysis were: economic growth, climatic conditions (including number of degree days), electricity import and nuclear phase-out.

Also, CO₂ comparisons across the full time series were made between regional and national (HERMES) calculations.

The report does not comment on model robustness.

Details of the uncertainty assessment

The report outlines an overall range of uncertainty for greenhouse gas projections, based on the results of the CO₂ sensitivity analysis. The assessment covers 2020 projections only and does not quantify uncertainty for individual gases or sectors.

The uncertainty assessment uses the variables identified in the sensitivity analysis rather than separately identifying the major sources of error. It is not clear whether Belgium has minimised uncertainty in its modelling of projections.

9. PROJECTION INDICATOR REPORTING

All indicators except freight transport (Mtkm) were reported, including numerators and denominators. These are provided in Table 12.

10. REPORTING OF PARAMETERS ON PROJECTIONS

The Monitoring Mechanism submission provides a comprehensive set of assumptions at the national and regional level, but these are not provided in the format of mandatory and

recommended parameters in Table 13. Some assumptions fit this format and have been inserted into Table 13. Several other assumptions were provided that differ between region to region.

Table 12. Indicators for projections to monitor and evaluate progress with policies and measures (2005/166/EC) Annex III

No	Eurostat Sectors	Indicator	2005	2010	2015	2020	Numerator/denominator	2005	2010	2015	2020
1	Macro	CO ₂ intensity of GDP, t/Euro million	463.1	405.8	367.7	346.0	Total CO ₂ emissions, kt	125315	122985	123185	127712
							GDP, bio Euro (2000)	270.6	303.1	335	369.1
2	Transport C0	CO ₂ emissions from passenger cars, kt	13178	12518	11882	11851					
		Number of kilometres by passenger cars, Mkm	76389	80016	83323	87445					
3	Transport D0	CO ₂ emissions from freight transport (all modes), kt	10730	10800	11110	11514					
		Freight transport (all modes), Mtkm	n.a.	n.a.	n.a.	n.a.					
4	Industry A1	Energy related CO ₂ intensity of industry, t/Euro million	487.4	410.9	363.5	332.3	CO ₂ emissions from fuel consumption industry, kt	26711	25066	24139	23895
							Gross value-added total industry, Bio Euro (EC 95)	54.8	61	66.4	71.9
5	Households A1	Specific CO ₂ emissions of households, t/dwelling	5.2	5.0	4.8	4.6	CO ₂ emissions from fossil fuel consumption households, kt	22906	22852	22590	22221
							Stock of permanently occupied dwellings, 1000	4430.5	4590.5	4728.5	4859.2
6	Services A0	CO ₂ intensity of the services sector, t/Euro million	44.7	38.5	33.6	29.4	CO ₂ emissions from fossil fuel consumption services, kt	6940	6718	6519	6356
							gross value-added services, bio Euro (EC95)	155.1	174.3	194.3	216.1
7	Transformation B0	Specific CO ₂ emissions of public and autoproducer power plants, t/TJ	77.9	69.3	70.5	77.1	CO ₂ emissions from public and autoproducer thermal power stations, kt	26531	26130	28526	33805
							all products-output by public and autoproducer thermal power stations, PJ	340.7	377.2	404.5	438.6
8	Agriculture	Specific N ₂ O emissions of fertilizer and manure use, kg/kg	0.0	0.0	0.0	0.0	N ₂ O emissions from synthetic fertilizer and manure use, kt	6	5.6	5.5	5.3
							use of synthetic fertiliser and manure, kt nitrogen	308	298	293	288
9	Agriculture	Specific CH ₄ emissions of cattle	0.1	0.1	0.1	0.1	CH ₄ emissions from cattle, kt	215.1	193.6	182.4	170.5

		production, kg/head					cattle populations, 1000 head	2907	2616	2489	2366
10	Waste	Specific CH ₄ emissions from landfills, kt/kt	0.1	0.0	0.0	0.0	CH ₄ emissions from landfills, kt	39.2	21.9	14.4	12.1
							Municipal solid waste going to landfills, kt	687	687	687	687

Table 13. List of parameters on projections (Annex IV of Implementing Provisions¹)

1. Mandatory parameters on projections	2000	2005	2010	2015	2020
Assumptions for general economic parameters					
GDP (value at given years or annual growth rate and base year)					
— EU-15 GDP growth rate	3.8	1.5	2.2	2.1	2.1
— For HERMES - Belgium GDP growth rate	3.9	1.2	2.2	2	1.9
— For HERMES - Belgium GDP	251.7	298.2	370.1	456.1	556.5
Growth of relevant foreign markets	11.8	6.2	6.4	5.6	5.5
Growth of world import volumes of goods	13.5	7.9	7.9	7.5	7.5
Growth of non-oil commodity prices (USD)	-7.3	3	1.5	1.5	1.5
Population (value at given years)					
population Belgium	10239085	10445852	10529690	10628964	10723828
population Flanders	5940251	6043161	6079433	6112632	6141421
population Wallonia	3339516	3395942	3450555	3500953	3551351
population Brussels region	959318	1006749	999702	1015379	1031056
International coal prices at given years in euro per tonne or GJ (Gigajoule)					
International oil prices at given years (USD per barrel (Brent))	28.4	54.4	65	62.7	72.4
International gas prices at given years in euro per m3 or GJ					
Assumptions for the energy sector					
Total gross inland consumption (PJ) (split by oil, gas, coal, renewables, nuclear, other)					
Total electricity production by fuel type (oil, gas, coal, renewables, nuclear, other)					
Shares in total domestic electricity production (%)					
Share of gas (natural gas / derived gasses)	23.07	27.63	29.08	38.04	51.33
Share of oil	1.41	0.89	1.15	1.33	1.57
Share of coal	14.25	12.48	8.47	7.27	5.21
Share of nuclear	58.24	54.44	52.03	43.36	31.58
Share of renewable, including biomass	0.95	2.55	7.31	8.15	8.59
Share of pump storage	1.37	1.3	1.24	1.17	1.09
Share of waste (non renewable fraction)	0.71	0.73	0.72	0.68	0.63
Share of CHP (including CCGT with heat production)	7.5	10.29	16.55	18.26	19.81
Energy demand by sector split by fuel (delivered)					
Demand	79.12	84.52	88.81	93.79	98.41
Net import (balance export – import)	4.32	6.99	7.41	7.29	5.67
Production	80.12	83.06	87.16	92.52	99
Use for pumping and distribution losses	5.32	5.53	5.76	6.02	6.26
Assumptions on weather parameters (Heating Degree Days per year)	1714 *	1900	1900	1900	1900
Assumptions for the industry sector					
<i>For Member States using macroeconomic models:</i>					
The share of the industrial sector in GDP and growth rate					
<i>For Member States using other models:</i>					
The production index for industrial sector					
Assumptions for the transport sector					

¹ Commission Decision of 10 February 2005 laying down rules implementing Decision No 280/2004/EC of the European Parliament and of the Council concerning a mechanism for monitoring Community greenhouse gas emissions and for implementing the Kyoto Protocol

1. Mandatory parameters on projections	2000	2005	2010	2015	2020
<i>For Member States using macroeconomic models:</i>					
The growth of transport relative to GDP					
<i>For Member States using other models:</i>					
The growth of passenger person kilometres					
The growth of freight tonne kilometres					
Assumptions for buildings (in residential and commercial or tertiary sector)					
<i>For Member States using macroeconomic models:</i>					
The level of private consumption (excluding private transport)					
The share of the tertiary sector in GDP and the growth rate					
<i>For Member States using other models:</i>					
The rate of change of floor space for tertiary buildings and dwellings					
The number of dwellings and number of employees in the tertiary sector					
Assumptions in the agriculture sector					
<i>For Member States using macroeconomic models:</i>					
The share of the agriculture sector in GDP and relative growth					
<i>For Member States using other models:</i>					
Livestock numbers by animal type (1000s)					
Dairy Cattle			490	446	397
Non-dairy Cattle			2126	2043	1969
Sheep and Goats			135	134	129
Horses, Mules and Asses, Other			73	73	73
Swine			6116	6119	6119
Poultry			52754	53301	54005
The area of crops by crop type					
Emissions factors by type of livestock for enteric fermentation and manure management (t)					
Assumptions in the waste sector					
Waste generation per head of population or tonnes of municipal solid waste					
The organic fractions of municipal solid waste					
Municipal solid waste disposed to landfills, incinerated or composted (in tonnes or %)					
Assumptions in the forestry sector					
Forest definitions					
Areas of:					
managed forests					
unmanaged forests					

Table Notes:

* Actual number not projection

2. Recommended parameters on projections	2000	2005	2010	2015	2020
Assumptions for general economic parameters					
GDP growth rates split by industrial sectors in relation to 2000					
Growth sector activity (VA in constant basic prices)					
Industry	5.2	0.5	1.9	1.6	1.4
Energy	4.4	-1.4	1.2	0.8	1
Manufacturing industry	4.6	0.2	2	1.6	1.3
-intermediary goods	5.4	1.2	2	1.6	1.3

2. Recommended parameters on projections	2000	2005	2010	2015	2020
-equipment goods	14	0.2	2.2	1.6	1.4
-consumption goods	-1.8	-0.9	1.8	1.7	1.3
Construction	7.9	3	2.1	2	1.7
Transports and communication	5.3	3	2.7	2.3	2
Market services	3.5	1.5	2.6	2.3	2.2
Non-market services	1.3	0.7	1.5	1.5	1.6
Comparison projected data with official forecasts					
Assumptions for the energy sector					
National coal, oil and gas energy prices per sector (including taxes)					
National electricity prices per sector as above (may be model output)					
Electricity sector (€ 2005 / GJ) natural gas		5.17	5.64	5.64	6.1
hard coal 0.5 % S		2.35	2.35	2.35	2.5
hard coal 1.5 % S		2.66	2.5	2.66	2.82
heavy fuel oil		8.14	6.73	6.73	7.2
Industry (€ 2005 / GJ) natural gas		6.1	6.73	6.73	7.2
heavy fuel oil		8.3	6.89	7.04	7.51
light fuel oil		9.39	7.98	7.98	8.45
Tertiary sector (€ 2005 / GJ) natural gas		6.67	7.14	7.14	7.6
light fuel oil		9.69	8.28	8.28	8.75
Residential sector (€ 2005 / GJ) natural gas		7.97	8.44	8.24	8.9
light fuel oil		9.69	8.28	8.28	8.75
Transport (€ 2005 / l) gasoline		1.27	1.21	1.21	1.23
gas oil - diesel		1.04	0.96	0.96	0.99
CO2 trade price (€ / ton CO2)		18	42	48	54
Total production of district heating by fuel type					
Assumptions for the industry sector					
Assumptions fluorinated gases:					
Aluminium production and emissions factors					
Magnesium production and emissions factors					
Foam production and emissions factors					
Stock of refrigerant and leakage rates					
<i>For Member States using macroeconomic models:</i>					
Share of GDP for different sectors and growth rates					
Rate of improvement of energy intensity (1990 = 100)					
<i>For Member States using other models:</i>					
Index of production for different sectors					
Rate of improvement or index of energy efficiency					
Assumptions for buildings (in residential and commercial / tertiary sector)					
<i>For Member States using macroeconomic models:</i>					
Share of tertiary and household sectors in GDP					
Rate of improvement of energy intensity					
<i>For Member States using other models:</i>					
Number of households					
number of households Belgium	4296789	4439652	4594121	4731520	4863876
number of households Flanders	2424592	2501681	2572945	2635607	2687256
number of households Wallonia	1397287	1446614	1511124	1573867	1642357
number of households Brussels region	470254	491357	490050	497735	505420
average household size Belgium	2.38	2.35	2.29	2.25	2.21

2. Recommended parameters on projections	2000	2005	2010	2015	2020
average household size Flanders	2.45	2.41	2.36	2.32	2.29
average household size Wallonia	2.39	2.35	2.28	2.23	2.16
average household size Brussels region	2.04	2.04	2.04	2.04	2.04
Number of new buildings					
Rate of improvement of energy efficiency (1990 = 100)					
Assumptions for the transport sector					
<i>For Member States using econometric models:</i>					
Growth of transport relative to GDP split by passenger and freight					
Improvements in energy efficiency split by vehicle type					
Improvements in energy efficiency split by vehicle type, whole fleet/new cars					
Rate of change of modal split (passenger and freight)					
Growth of passenger road kilometres					
Growth of passenger rail kilometres					
Growth of passenger aviation kilometres					
Growth of freight tonne kilometres on road					
Growth of freight tonne kilometres by rail					
Growth of freight tonne kilometres by navigation					
Assumptions for the agriculture sector					
<i>For Member States using econometric models:</i>					
Agricultural trade (import/export)					
Domestic consumption (e.g. milk/beef consumption)					
<i>For Member States using other models:</i>					
Development of area of crops, grassland, arable, set-aside, conversion to forests etc					
Macroeconomic assumptions behind projections of agricultural activity					
Description of livestock (e.g. by nutrient balance, output/animal production, milk production)					
Development of farming types (e.g. intensive conventional, organic farming)					
Distribution of housing/grazing systems and housing/grazing period					
Parameters of fertiliser regime:					
Details of fertiliser use (type of fertiliser, timing of application, inorganic/organic ratio)					
Volatilisation rate of ammonia, following spreading of manure on the soil					
Efficiency of manure use					
Parameters of manure management system:					
Distribution of storage facilities (e.g. with or without cover):					
Nitrogen excretion rate of manures					
Methods of application of manure					
Extent of introduction of control measures (storage systems, manure application), use of best available techniques					
Parameters related to nitrous oxide emissions from agricultural soils					
Amount of manure treatment					

11. COUNTRY CONCLUSIONS

The Monitoring Mechanism report projects a 5.3 MtCO₂-eq. (3.6%) reduction in emissions by 2010 for the “with measures” scenario, relative to the base year. This reduction is greater than reported in 2005 and 2006. In comparing Belgium’s progress to its EU burden sharing target of 7.5% below 1990 levels, Belgium is not on track to meet this target “with measures”. “With additional measures” Belgium may close the gap to some extent; however this amount has only been quantified for 2020, not 2010. With the use of flexible mechanisms Belgium is projected to overachieve its Kyoto target by 1.29 MtCO₂-eq.

The Monitoring Mechanism report provides good descriptions about policies and measures but very little quantification. Base year emissions split by all gases and sectors were missing from the report but were subsequently provided by the Departement Leefmilieu, Natuur en Energie in personal communications, July 2007.