

France

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1. SOURCES OF INFORMATION

- Rapport de la France. Au titre du paragraphe 2 de l'article 3 de la décision n°280/2004/CE du Parlement européen et du Conseil du 11 février 2004 relative au mécanisme pour surveiller les émissions de gaz à effet de serre dans la communauté et mettre en ouvre le Protocol de Kyoto. Actualisation mars 2007
- Overview of CCPM implementation in MS
- ECCP Policies and Measures database, <http://www.oeko.de/service/pam/index.php>
- France National Allocation Plan 2008-2012, submitted to the EU Commission on 28 December 2006, approved by the Commission on 26 March 2007

Base-year emissions

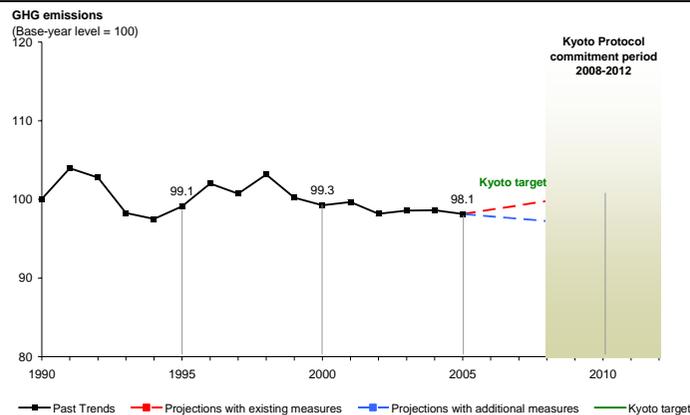
Base-year emissions of all greenhouse gases are calculated using 1990 emissions for carbon dioxide (CO₂), methane (CH₄), nitrous oxide (N₂O) emissions and for fluorinated gases (SF₆, HFCs and PFCs), emission results are only given for total GHG.

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

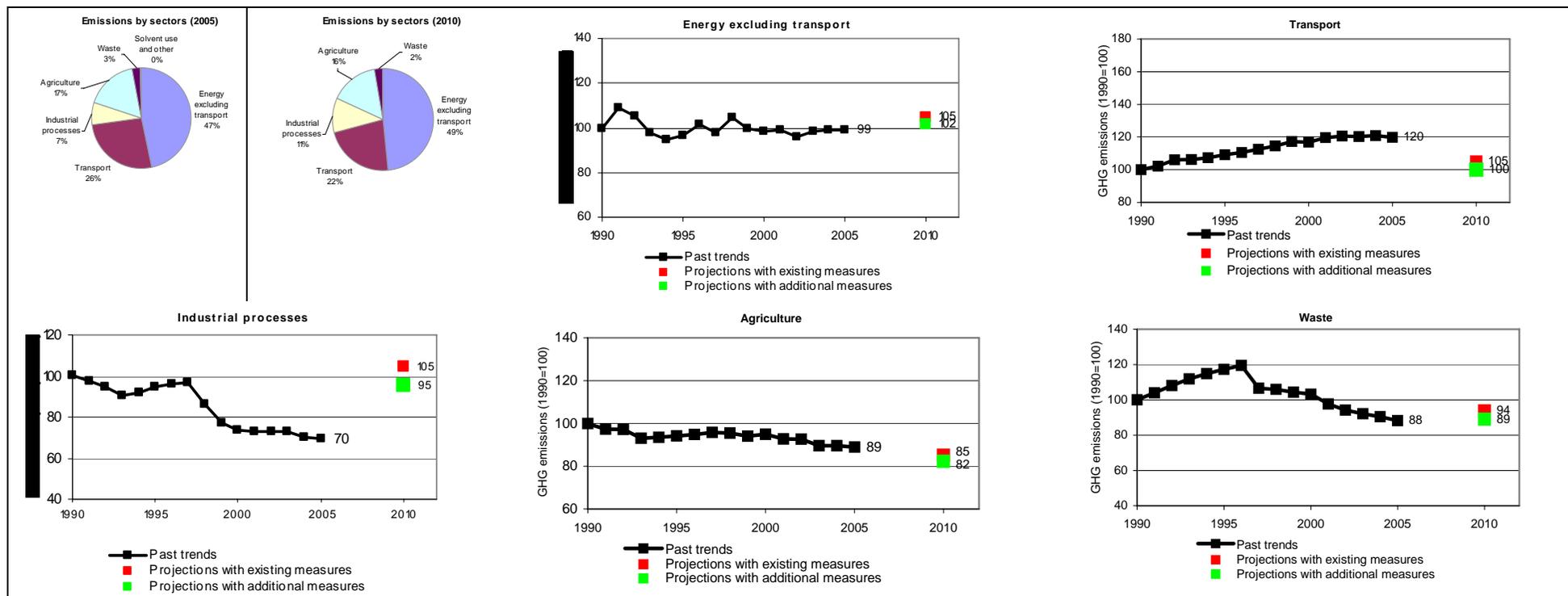
FRANCE

Share in total EU-15 GHG emissions 2005	13.2 %
Emissions base year (initial report)	563.9 Mt
Emissions 2005	553.4 Mt
Emissions base year (for projections)	564.0 Mt
Projections 2010 with existing measures	569.0 Mt
Projections 2010 with additional measures	545.0 Mt
Kyoto target (absolute)	563.9 Mt
Kyoto target (% from base year)	0 %
Change base year to 2005	- 1.9 %
Change 2004-05	- 0.5 %
Change base year to 2010 with existing measures+	0.9 %
Change base year to 2010 with additional measures-	3.4 %
Distance to linear target path 2005	-1.9 index points
Use of Kyoto mechanisms	n.a.
Sinks (Articles 3.3. and 3.4)	n.a.
Emissions in 1990 (Article 3.7)	n.a.

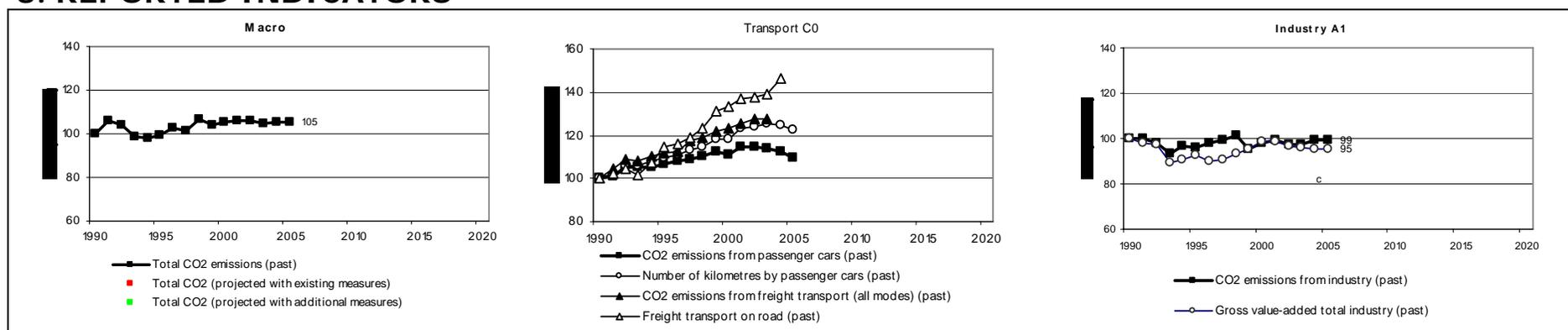


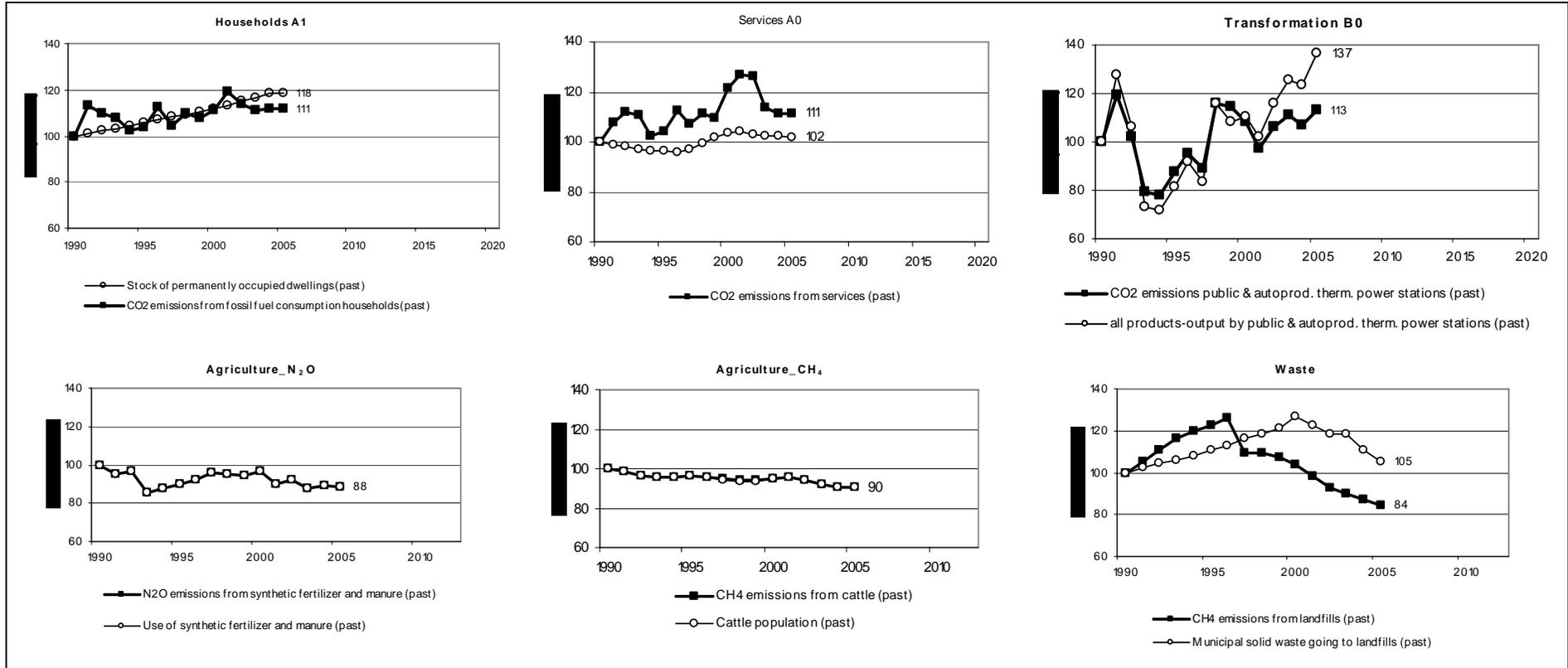
Past emissions: France's GHG emissions were 0.5 % below those of 2004 and 1.9 % below base-year levels in 2005. Main factors for decreasing emissions with regard to the previous year were a decline in fossil fuel combustion in transport and households and services. Also fugitive emissions (i.p. from coal mining and natural gas use) and emissions from metal productions declined. Between 1990 and 2005, road transport was by far the largest contributor to emission increases, followed by consumption of halocarbons mainly in refrigeration and air conditioning. These increases were offset by, among others, reduction measures in adipic acid production.

Emission projections: Emissions in 2005 were three percentage points below the level projected in the 'with measures' scenario for 2010. France will achieve its Kyoto target with additional domestic measures projecting to be about three percent below the Kyoto target with additional measures.



3. REPORTED INDICATORS





France

Priority Indicators		1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
Macro	Total CO ₂ emissions, kt	392,686	415,445	408,395	388,309	383,876	390,119	404,201	398,128	418,353	408,028	413,377	415,292	416,222	411,489	414,260	413,160
	GDP, Bio Euro (EC95)	1,146	1,150	1,168	1,152	1,174	1,194	1,204	1,228	1,273	1,307	1,356	1,386	1,406	1,419	1,445	1,463
Macro B0	CO ₂ emissions from energy consumption, kt	360,339	384,879	379,839	360,644	355,178	361,602	376,940	370,655	390,568	381,422	386,641	388,977	390,009	385,682	386,748	386,424
	GDP, Bio Euro (EC95)	1,146	1,150	1,168	1,152	1,174	1,194	1,204	1,228	1,273	1,307	1,356	1,386	1,406	1,419	1,445	1,463
Transport C0	CO ₂ emissions from passenger cars, kt	65,316	66,059	68,776	68,715	68,959	69,715	70,430	70,865	71,855	73,431	72,449	75,007	74,778	74,549	73,510	71,741
	Number of kilometres by passenger cars, Mkm	332,347	337,723	351,922	352,325	359,123	362,981	369,979	374,911	381,455	392,350	392,049	409,294	411,546	415,613	414,889	408,344
Industry A1	CO ₂ emissions from industry, kt	82,329	82,283	80,790	76,827	79,386	79,038	80,457	81,756	83,186	78,628	80,934	81,721	79,910	79,860	81,803	81,788
	Gross value-added total industry, Bio Euro (EC95)	257	253	251	229	233	238	231	233	239	245	254	254	248	246	246	244
Households A1	CO ₂ emissions from fossil fuel consumption households, kt	55,173	62,381	60,638	59,279	56,295	57,197	62,203	57,733	60,555	59,287	61,262	65,593	62,885	61,297	61,741	61,505
	Stock of permanently occupied dwellings, 1000	22,129	22,324	22,590	22,851	23,117	23,387	23,655	23,918	24,177	24,459	24,778	25,097	25,419	25,747	26,217	26,208
Services A0	CO ₂ emissions from fossil fuel consumption in commercial and institutional sector, kt	27,895	30,118	31,263	30,826	28,480	29,068	31,469	29,972	31,037	30,573	33,861	35,432	35,271	31,721	31,125	31,080
	Gross value-added services, Bio Euro (EC95)	822	810	805	796	791	791	787	795	815	836	852	855	847	843	841	838
Transformation B0	CO ₂ emissions from public and autoproducer thermal power stations, kt	52,296	62,499	53,333	41,566	40,699	45,948	49,831	46,603	60,445	59,795	56,653	50,843	55,490	58,117	56,015	59,043
	All products - output and autoproducer thermal power stations, PJ	173	221	185	127	125	141	159	145	201	188	191	178	201	218	214	237
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	42,520	44,339	46,139	46,080	46,823	47,544	47,957	49,846	50,664	51,918	52,424	53,457	54,175	54,265	55,506	55,931
	Freight transport on road, Mtkm	174,719	178,590	182,245	177,009	187,414	199,992	202,959	208,185	215,858	228,617	233,222	239,116	240,381	242,484	255,744	253,809
Industry A1.1	Total CO ₂ emissions from iron and steel, kt	21,164	19,775	20,754	18,482	22,595	21,624	20,005	21,555	22,012	21,287	20,956	19,104	20,483	20,481	21,402	20,921
	Gross value-added - iron and steel industry, Bio Euro (EC95)	23	22	21	19	20	22	21	22	22	22	24	23	22	21	22	22
Industry A1.2	Energy related CO ₂ emissions chemical industries, kt	14,177	15,704	15,706	15,025	15,055	15,434	15,626	15,329	15,171	14,055	14,568	14,994	13,877	15,320	16,282	15,866
	Gross value-added - chemical industry, Bio Euro (EC95)	18	17	17	16	16	18	17	18	19	18	18	18	17	17	17	16
Industry A1.3	Energy related CO ₂ emissions - glass pottery and building materials industry, kt	18,826	16,951	14,683	13,695	13,869	13,933	14,149	14,531	14,657	13,334	13,667	14,890	14,652	14,881	15,773	15,952
	Gross value added - glass pottery and building materials industry, Bio Euro (EC95)	10	10	10	9	10	9	9	9	9	9	9	9	9	9	9	9
Industry C0.1	Total CO ₂ emissions from iron and steel, kt	21,164	19,775	20,754	18,482	22,595	21,624	20,005	21,555	22,012	21,287	20,956	19,104	20,483	20,481	21,402	20,921
	Production of oxygen steel	13,625	13,108	12,552	11,884	11,948	11,547	10,930	11,889	12,061	12,458	12,755	11,382	12,596	12,200	12,921	12,349
Industry C0.2	Energy related CO ₂ emissions from glass, pottery and building materials, kt	18,825,812	16,951,181	14,682,597	13,695,060	13,869,091	13,932,881	14,149,159	14,530,704	14,657,050	13,333,911	13,667,328	14,890,493	14,651,963	14,880,986	15,772,558	15,952,125
	Cement production, kt	35,163,517	33,836,729	31,478,913	29,413,185	30,667,306	31,033,430	30,346,592	30,094,836	31,601,112	31,151,553	31,805,455	31,949,346	31,922,112	31,267,884	32,828,081	32,897,783

4. OVERVIEW OF CCPM IMPLEMENTATION IN MEMBER STATE

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

Sector	CCPM	France
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	
Energy supply	Promotion of cogeneration 2004/8/EC	B
Energy supply	Taxation of energy products 2003/96/EC	B
Energy supply	Internal electricity market 2003/54/EC	
Energy supply	Promotion of electricity from RE sources 2001/77/EC	R
Energy supply	Internal market in natural gas 98/30/EC	
Energy supply	Emissions from large combustion plants 88/609/EEC	
Energy consumption	Directives on energy labelling of appliances	N
Energy consumption	End-use efficiency and energy services 2006/32/EC	N
Energy consumption	Ecodesign requirements for energy-using products 2005/32/EC	N
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	R
Transport	Integrated European railway area (2nd + 3rd Railway package) (COM(2002)18 final)	
Transport	Transport modal shift to rail 2001/12/EC etc.	B
Transport	Consumer information on cars 1999/94/EC	N
Transport	Agreement with car manufacturers ACEA etc.	R
Industrial Process	F-gas regulation (Regulation No 842/2006)	
Industrial Process	Industrial Process: HFC emissions from air conditioning in motor vehicles 2006/40/EC	N
Agriculture	Support under CAP (1782/2003)	R
Agriculture	Support under CAP - amendment (1783/2003)	R
Agriculture	Nitrates 91/676/EEC	
Agriculture	Transition to rural development support No 2603/1999	
Agriculture	Agricultural production methods compatible with environment Regulation (EEC) No 2078/92	
Agriculture	Aid scheme for forestry measures in agriculture (Regulation (EEC) No 2080/92)	
Agriculture	Emission by engines to power agricultural or forestry 2000/25/EC	
Agriculture	Pre-accession measures for agriculture and rural development Regulation (EC) No 1268/1999	
Waste	Directive on waste 2006/12/EC	N
Waste	Landfill directive 1999/31/EC	B

Waste	Packaging and packaging waste (Directive 94/62/EC, 2004/12/EC, 2005/20/EC)	
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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



Source: MS responses to the CCPMs questionnaire, 2005.

5. COMPLETENESS OF REPORTING

The French Report 2007 provides information on policies and measures in the different sectors without quantified effects for most existing and additional measures for 2010. Both 'with measures' and 'with additional measures' projections are not disaggregated by gas for all sectors. For energy sector only CO₂ emissions are presented, disaggregated by sub-sectors. Emissions from industrial processes are missing except F-gas emissions. Totals are not given for CH₄ and N₂O emissions, these gases are reported only for the agriculture and waste sector. Policies in the two scenarios are specified.

Table 2. Information provided on policies and measures

Information provided	Level of information provided	Comments
Policy names	++	Policies are distinguished partly by long names, measures are partly merged under one measure name.
Objectives of policies	+++	In most cases a good description of the objectives.
Which greenhouse gases?	+++	All
Status of Implementation	+++	
Implementation body specified	++	The ministries and other bodies in charge are mentioned.
Quantitative assessment of implementation	+	Nearly no emission reductions for individual measures quantified for 2010. No figures for 2020. Implementation assessment sometimes given with other quantitative information.
Interaction with other policies and measures discussed	+	Partly addressed.

+, ++, +++ level of information available increases as the number of + signs increases

Table 3. Information provided on projections

Category of Information	Level of information provided	Comments
Scenarios considered	++	Distinction is made between the following scenarios With existing measures (measures that have been adopted before 1 January 2004) With additional measures (measures included in Climate Plan or adopted before 1 October 2005 but after 1 January 2007)
Expressed relative to base year	+++	Absolute figures.
Starting year	2005	
Split of projections	+	Poor disaggregation by GHG and sectors
Presentation of results	++	Tables and figures given, units are lacking sometimes
Description of model (level of detail, approach and assumptions)	++	The use of the different models is described in principle.

Discussion of uncertainty	+	No discussion of sensitivity /uncertainty analysis.
Details of parameters and assumptions	++	The main assumptions are stated in the French report 2007.

+, ++, +++ level of information available increases as the number of + signs increases
Assessment of Policies and Measures

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	25.8	18.0
Transport (energy)	16.7	7.4
Buildings	1.4	3.8
Manufacturing industries	0.7	4.7
Energy industries	7.0	2.2
F-Gases	7.2	3.7
Agriculture	0.9	3.1
CH ₄ - Emissions		1.1
N ₂ O- Emissions		2.0
Industry	5.4	
Waste	14.4	0.7
Solid waste disposal		0.1
Waste incineration		0.6
Total (excluding sinks)	53.7	25.5

Source: France Report 2007

The effects of policies and measures in with measures scenario have been calculated based on emissions reductions indicated in table 5. Reductions of policies and measures used in with additional measures scenario have been calculated by subtracting projections.

Table 5. Detailed information on policies and measures

Policies and measures in the “with measures” projection

<u>Sector</u>	Projection Scenario	Name	Type	GHG	Status	Absolute Reduction [kt CO ₂ eq. p.a.]			<u>Costs</u> <u>[EUR/t]</u>
						2005	2010	2020	
Cross-cutting	WM	Information campaign- "Faisons vite ca chauffe"	Information	CO ₂	implemented			details	
Cross-cutting Energy consumption Energy supply	WM	Section "Climat-énergie" in contracts of the project "State-Regions 2007-2012"	Economic	CH ₄ CO ₂ HFC N ₂ O PFC SF ₆				details	
Cross-cutting Energy supply Industrial Processes	WM	European Emission trading, National Allocation Plan	Economic	CO ₂	implemented		3,200		
Cross-cutting Energy consumption	WM	Certificates for energy savings	Economic Regulatory	CO ₂			2,400		
Cross-cutting Energy supply	WM	Wood energy plan	Economic Information	CO ₂	implemented		1,400		
Cross-cutting Energy supply	WM	Research program for new energy technologies	Research	CO ₂	implemented				
Agriculture Energy supply	WM	Structuring of supply with fuel wood	Economic	CO ₂	expired				
Cross-cutting Energy consumption Energy supply	WM	Section "Climat-énergie" in contracts of the project "State-Regions 2007-2012"	Economic	CH ₄ CO ₂ HFC N ₂ O PFC SF ₆				details	
Cross-cutting Energy supply Industrial Processes	WM	European Emission trading, National Allocation Plan	Economic	CO ₂	implemented		3,200		
Cross-cutting	WM	Wood energy plan	Economic	CO ₂	implemented		1,400		

<u>Sector</u>	<u>Projection Scenario</u>	<u>Name</u>	<u>Type</u>	<u>GHG</u>	<u>Status</u>	<u>Absolute Reduction [kt CO₂ eq. p.a.]</u>			<u>Costs [EUR/t]</u>
						<u>2005</u>	<u>2010</u>	<u>2020</u>	
Energy supply			Information						
Cross-cutting Energy supply	WM	Research program for new energy technologies	Research	CO ₂	implemented				
Energy supply	WM	"Wind energy" Plan	Economic	CO ₂	expired			40	
Energy supply	WM	"Solar energy" Plan	Economic	CO ₂	expired			details	
Energy supply	WM	Contracts for cogeneration and exemption "TICGN"	Economic	CO ₂	implemented			details	
Energy supply	WM	Technology change for nuclear enrichment	Other	CO ₂	planned				
Energy supply	WM	Use of geothermal energy	Economic	CO ₂	implemented				
Energy supply	WM	Electricity generation by windpower	Economic	CO ₂	implemented				
Energy supply	WM	Extension of nuclear electricity generation	Other	CO ₂	implemented				
Energy supply	WM	Renewable electricity generation	Economic Regulatory	CO ₂	implemented				
Cross-cutting Energy consumption Energy supply	WM	Section "Climat-énergie" in contracts of the project "State-Regions 2007-2012"	Economic	CH ₄ CO ₂ HFC N ₂ O PFC SF ₆				details	
Cross-cutting Energy consumption	WM	Certificates for energy savings	Economic Regulatory	CO ₂				2,400	
Energy consumption	WM	Labelling of electric household appliances	Information	CO ₂	implemented				
Energy consumption	WM	FACE (Fonds d'amortissement des charges d'électrification)	Economic	CO ₂	implemented			details	
Energy consumption Industrial Processes	WM	Energy audits	Information	CO ₂	implemented			details	
Energy consumption	WM	Subsidies for energy audits of buildings	Information	CO ₂	implemented			Cluster value	
Energy consumption	WM	Energy information points		CO ₂	implemented			Cluster value	

<u>Sector</u>	<u>Projection Scenario</u>	<u>Name</u>	<u>Type</u>	<u>GHG</u>	<u>Status</u>	<u>Absolute Reduction [kt CO₂ eq. p.a.]</u>			<u>Costs [EUR/t]</u>
						<u>2005</u>	<u>2010</u>	<u>2020</u>	
Energy consumption	WM	Thermal Regulation RT 2000	Regulatory	CO ₂	implemented			600	
Energy consumption	WM	Energy label (HPE, THPE) and environment label (HQE)	Voluntary/ negotiated agreement	CO ₂	implemented			500	
Energy consumption	WM	Recued VAT rate of 5,5% for energy saving equipment	Fiscal	CO ₂	implemented			details	
Energy consumption	WM	Efficiency requirements for new hot-water boilers	Regulatory	CO ₂	implemented			300	
Energy consumption	WM	Subsidies for thermal energy from renewables (tax credits, subsidies from Solar Plan and Wood Plan)	Economic Fiscal	CO ₂	expired			600	
Energy consumption	WM	Funds like FIDEME, FOGIME	Economic	CO ₂	implemented				
Energy consumption	WM	Operation program for technical and energetic improvement		CO ₂	implemented			details	
Energy consumption	WM	ANAH (National Agency for improvement of living conditions)	Economic Information	CO ₂	implemented			details	
Energy consumption		Combined emission reduction of FR-ENC-08 FR-ENC-09	Information	CO ₂	implemented			100	
Transport	WM	Development of TGV network	Other	CO ₂	implemented			details	
Transport	WM	Promotion for cultivation of energy plants within the PAC	Economic	CO ₂	implemented			details	
Transport	WM	Voluntary agreement of automobile manufacturers (ACEA, JAM, KAMA)	Voluntary/ negotiated agreement	CO ₂	implemented			details	
Transport	WM	Labelling of fuel consumption and CO₂ emissions of cars	Regulatory	CO ₂	implemented			200	
Transport	WM	Speed control	Regulatory	CO ₂	implemented			3,000	
Transport	WM	Technical control of low-weight vehicles	Regulatory	CO ₂	implemented			details	
Transport	WM	Development of TCSP (public transport) and TER (regional express train)	Economic	CO ₂	implemented			details	
Transport	WM	Plan for freight transport with rail	Economic	CO ₂				100	

<u>Sector</u>	<u>Projection Scenario</u>	<u>Name</u>	<u>Type</u>	<u>GHG</u>	<u>Status</u>	<u>Absolute Reduction [kt CO₂ eq. p.a.]</u>			<u>Costs [EUR/t]</u>
						<u>2005</u>	<u>2010</u>	<u>2020</u>	
Transport	WM	Establishment of AFITF: readjustment on financing for public transport	Economic	CO ₂				details	
Transport	WM	Privilege of non-road transport infrastructure	Planning	CO ₂	implemented				
Cross-cutting Energy supply Industrial Processes	WM	European Emission trading, National Allocation Plan	Economic	CO ₂	implemented		3,200		
Energy consumption Industrial Processes	WM	Energy audits	Information	CO ₂	implemented			details	
Industrial Processes	WM	Wood energy plan (industry)	Economic Information	CO ₂	expired		400		
Industrial Processes	WM	Regulation of N₂O emissions from industrial processes	Regulatory	N ₂ O	implemented			Cluster value	
Industrial Processes	WM	General tax on polluting activities - N₂O	Fiscal	N ₂ O	implemented			Cluster value	
Industrial Processes	WM	Voluntary agreement AERES: N₂O commitment	Voluntary/ negotiated agreement	N ₂ O	implemented			Cluster value	
Industrial Processes	WM	Regulation of installations of HFC >2 kg	Regulatory	HFC PFC	implemented			details	
Industrial Processes	WM	Progress commitment AERES	Regulatory Voluntary/ negotiated agreement	HFC PFC	implemented		3,300		
Industrial Processes	WM	Sectoral progress commitment 1996 and 1997: glas, iron industry, aluminium, magnesium foundries, AERES	Regulatory Voluntary/ negotiated agreement	CO ₂ HFC PFC	implemented		5,000		
Industrial Processes	WM	Convention RTE, GIMELEC, ADEME	Voluntary/ negotiated agreement	SF ₆	implemented		1,100		
Industrial	WM	Voluntary agreement WSC	Voluntary/	SF ₆	implemented		2,800		

<u>Sector</u>	Projection Scenario	Name	Type	GHG	Status	Absolute Reduction [kt CO ₂ eq. p.a.]		<u>Costs [EUR/t]</u>
						2005	2010	
Processes			negotiated agreement					
Industrial Processes		Combined emission reduction of FR-IND-03 FR-IND-04 FR-IND-05	Fiscal Regulatory Voluntary/ negotiated agreement	N ₂ O	implemented		25700	
Agriculture	WM	1st campaign for fine-tuning of tractors and agriculture engines	Economic	CO ₂	expired			details
Agriculture	WM	Information programme on energy consumption	Information	CO ₂	implemented			details
Agriculture	WM	Improved application of nitrogen fertiliser	Regulatory	N ₂ O	implemented			details
Agriculture	WM	Agreement for environmental wood construction	Voluntary/ negotiated agreement	CO ₂	implemented		900	
Agriculture	WM	Decree for obligatory minimum share of wood use in construction	Regulatory	CO ₂	implemented			details
Agriculture Energy supply	WM	Structuring of supply with fuel wood	Economic	CO ₂	expired			
Waste	WM	Limitation of waste landfilling	Regulatory	CH ₄	implemented			Cluster value
Waste	WM	Obligation to capture methane from landfills	Regulatory	CH ₄	implemented			Cluster value
Waste		Combined emission reduction of FR-WAM-01 FR-WAM-02	Regulatory	CH ₄	implemented		14400	

Policies and measures in the “with additional measures” projection

<u>Sector</u>	<u>Projection Scenario</u>	<u>Name</u>	<u>Type</u>	<u>GHG</u>	<u>Status</u>	<u>Absolute Reduction [kt CO₂ eq. p.a.]</u>			<u>Costs [EUR/t]</u>
						2005	2010	2020	
Cross-cutting Energy consumption	WAM	Certificates for energy economy (part "heating")	Regulatory	CO ₂	implemented		1,000		
Cross-cutting Energy supply	WAM	Certificates for energy saving (electricity part)	Economic	CO ₂	implemented		Cluster value		
Cross-cutting Industrial Processes	WAM	European Emission Trading, National Allocation Plan	Regulatory	CO ₂	implemented		1,900		
Cross-cutting Industrial Processes	WAM	Participation in project-based flexible mechanisms	Economic		planned				
Cross-cutting Energy consumption Energy supply		Combined emission reduction of FR-ENC-05 FR-ENC-06 FR-ENS-09	Economic Regulatory	CO ₂	implemented		3000		
Energy supply	WAM	Possibility of nuclear option (EPR Flamanville)	Other	CO ₂	planned				
Cross-cutting Energy supply	WAM	Certificates for energy saving (electricity part)	Economic	CO ₂	implemented		Cluster value		
Energy supply	WAM	Feed-in tariffs and purchase obligation	Regulatory	CO ₂	implemented		Cluster value		
Energy supply	WAM	Tender for multi-year investment (wind and biomass)	Economic	CO ₂	implemented		Cluster value		
Energy supply	WAM	Green certificates for electricity from renewable energies	Voluntary/ negotiated agreement	CO ₂	implemented		details		
Energy supply	WAM	Waste plan (Waste incineration with energy recovery)	Information	CO ₂	implemented		500		
Energy supply	WAM	Development of the use of renewable thermal energy	Economic	CO ₂	implemented				
Energy supply	WAM	VAT of 5.5% for energy from wood	Fiscal	CO ₂	implemented				
Cross-cutting Energy consumption Energy supply		Combined emission reduction of FR-ENC-05 FR-ENC-06 FR-ENS-09	Economic Regulatory	CO ₂	implemented		3000		

<u>Sector</u>	<u>Projection Scenario</u>	<u>Name</u>	<u>Type</u>	<u>GHG</u>	<u>Status</u>	<u>Absolute Reduction [kt CO₂ eq. p.a.]</u>			<u>Costs [EUR/t]</u>
						<u>2005</u>	<u>2010</u>	<u>2020</u>	
Energy consumption	WAM	Ecodesign Directive and general energy efficiency labelling	Regulatory	CO ₂				Cluster value	
Energy consumption	WAM	Sustainable air conditioning	Regulatory	CO ₂				Cluster value	
Energy consumption	WAM	New Thermal Regulation RT 2005 and following RT 2010, RT 2015	Regulatory	CO ₂				600	
Energy consumption	WAM	Directive for energy efficiency of buildings (DPE, inspection of central heating boilers, existing regulation)	Regulatory	CO ₂				600	
Energy consumption	WAM	Modernization subsidies by ANAH are bound to energy efficiency improvements	Economic	CO ₂	implemented				details
Energy consumption	WAM	Renovation ANRU (Agence national pour la rénovation urbaine)	Economic	CO ₂	implemented			300	
Energy consumption	WAM	Enhancement of tax reductions for renewable energies	Fiscal	CO ₂	implemented				Cluster value
Energy consumption	WAM	Enhancement of tax reductions for central heating boilers and insulation	Fiscal	CO ₂	implemented				Cluster value
Cross-cutting Energy consumption	WAM	Certificates for energy economy (part "heating")	Regulatory	CO ₂	implemented			1,000	
Energy consumption	WAM	Savings for sustainable development for loans for renovation works in existing buildings	Economic	CO ₂	implemented			700	
Energy consumption	WAM	Credit for energy performance of branch office	Economic	CO ₂	implemented				
Energy consumption	WAM	Tax on CO₂	Fiscal	CO ₂	planned				
Cross-cutting Energy consumption Energy supply		Combined emission reduction of FR-ENC-05 FR-ENC-06 FR-ENS-09	Economic Regulatory	CO ₂	implemented			3000	
Energy consumption		Combined emission reduction of FR-ENC-19 FR-ENC-20	Fiscal	CO ₂	implemented			900	
Transport	WAM	Consumption tax exemption for biofuels -	Fiscal	CO ₂	implemented				Cluster

<u>Sector</u>	<u>Projection Scenario</u>	<u>Name</u>	<u>Type</u>	<u>GHG</u>	<u>Status</u>	<u>Absolute Reduction [kt CO₂ eq. p.a.]</u>			<u>Costs [EUR/t]</u>
						2005	2010	2020	
		enhancement of use of biofuels						value	
Transport	WAM	TGAP (General tax for polluting activities) biofuels	Fiscal	CO ₂	implemented			Cluster value	
Transport	WAM	Tax incentives for clean vehicles	Fiscal	CO ₂	implemented			value	details
Transport	WAM	Registration tax based on CO₂ emissions	Regulatory	CO ₂				100	
Transport	WAM	Assistance for relocation plans of companies, carbon balance for logistic	Information	CO ₂	implemented				details
Transport	WAM	Ecodriving	Information	CO ₂	implemented			600	
Transport	WAM	Enhancement of agreements of ACEA, JAMA, KAMA	Regulatory	CO ₂	planned				
Transport	WAM	Extension of energy label CO₂	Information	CO ₂	planned				
Transport		Combined emission reduction of FR-TRA-11 FR-TRA-12	Fiscal	CO ₂	implemented			9400	
Industrial Processes	WAM	Application of European recycling Directives DEEE, VHU	Regulatory	HFC	implemented			Cluster value	
Industrial Processes	WAM	Reglementation of installations of HFC <2 kg	Regulatory	HFC	planned			Cluster value	
Industrial Processes	WAM	Project for European regulation on F-gases	Regulatory	HFC PFC SF ₆	planned			Cluster value	
Industrial Processes	WAM	Project of European Directive on F-gases	Regulatory	HFC	planned			Cluster value	
Cross-cutting Industrial Processes	WAM	European Emission Trading, National Allocation Plan	Regulatory	CO ₂	implemented			1,900	
Industrial Processes	WAM	Inclusion of N₂O into the European Emission Trading Scheme	Regulatory	N ₂ O	planned			2,600	
Cross-cutting Industrial Processes	WAM	Participation in project-based flexible mechanisms	Economic		planned				
Industrial Processes	WAM	Creation of an action group for CO₂ reduction	Information	CO ₂	implemented				
Industrial		Combined emission reduction of	Regulatory	HFC	implemented			3600	

<u>Sector</u>	Projection Scenario	Name	Type	GHG	Status	Absolute Reduction [kt CO ₂ eq. p.a.]		<u>Costs [EUR/t]</u>
						2005	2010 2020	
Processes		FR-IND-11 FR-IND-12 FR-IND-13 FR-IND-14		PFC SF ₆	planned			
Agriculture	WAM	Additional campaign for fine-tuning of tractors and agriculture engines	Economic	CO ₂			500	
Agriculture	WAM	Encouragement for biogas recovery	Economic	CH ₄ N ₂ O	planned		900	
Agriculture	WAM	Improved use of nitrogen fertilisers and additional cultivation areas for biomass and biofuels		N ₂ O	implemented		details	
Agriculture	WAM	Integration of sequestration capacity of forests and agricultural soils	Regulatory	CO ₂	implemented			
Agriculture	WAM	Anaerobic treatment of manure	Research	CH ₄			500	
Agriculture	WAM	Energetic valorisation of biomass	Regulatory	CO ₂	planned		3,000	
Agriculture	WAM	Agro-environmental measures	Economic	N ₂ O				
Waste	WAM	Waste plan	Information	CH ₄	implemented		100 1,600	

Source: Öko Institut, (accessed 07/2007), ECCP Policies and Measures database, <http://www.oeko.de/service/pam/index.php>

7. EVALUATION OF PROJECTIONS

The data in Tables 6-8 are based on information from the French Report 2007. The data presented in the document include the French overseas departments and excludes overseas territories; the geographical coverage is the same as under the Kyoto Protocol. Nevertheless several parameters used in projections only correspond to metropolitan region (population growth, development of road traffic etc.).

Table 6 shows the projections by greenhouse gas for 2010 and Table 7 summarises the projections by sector. Both tables are incomplete due to the incomplete projections submitted by France. Table 8 shows the complete available data by sector and gas. The sectoral disaggregation for the energy sector and the disaggregation by gas in the French Report 2007 do not add up to the totals provided. It is assumed that the difference reflects the emissions of the sectors/gases into account, which were not reported in the projections. This difference has been included under 'other' to provide consistent figures in Figure 1. Total greenhouse gas emissions are projected to increase by 5 Mt CO₂ eq. (+0.9%) in the "with measures" projection (table 7). Long term projections until 2020 for the 'with additional measures' scenario are included in table 9.

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

	Base year*	With measures	With additional measures
Carbon dioxide (excl. LUCF)	NE	NE	NE
Methane	NE	NE	NE
Nitrous oxide	NE	NE	NE
HFCs+PFCs+SF6	9.3	22.6	18.9
Total (excl. LUCF)	564.0	569.0	545.0
% change relative to base year (excl. LUCF)		0.9%	-3.4%

*base year for F-gases is 1990
Source: France Report 2007

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

	Base year	with measures	% change relative to 1990	with additional measures	% change relative to 1990
Agriculture	106.0	90.3	85%	87.2	82%
Waste	14.6	13.7	94%	13.0	89%
Solid Waste disposal	10.7	7.6	71%	7.5	70%
Incineration	3.9	6.1	156%	5.5	141%
Total (excl. sinks)	564.0	569.0	100.9%	545.0	97%

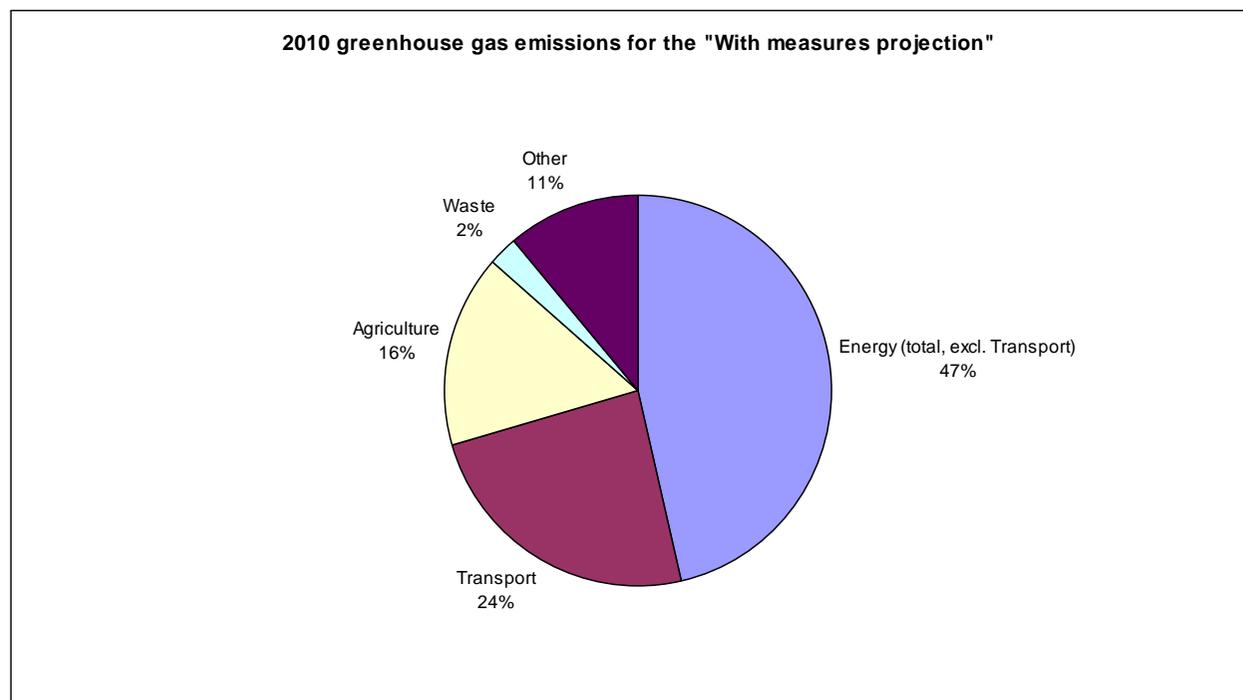
Source: France Report 2007

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		
	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 (total)	365.0	401.0	383.0									
Energy Production, industry, fugitive emissions	153.0	148.0	142.0									
Transport	118.0	137.0	130.0									
Aviation												
Metropolitain+OT	4.5	6.1	6.1									
International (memo item)	8.6	15.9	15.9									
Buildings	83.0	105.0	102.0									
Industry												
HFC, PFC and SF6										9.3	22.6	18.9
Agriculture				44.0	39.3	38.2	62.0	51.0	49.0			
Waste												
Solid Waste disposal				10.7	7.6	7.5						
Incineration	3.9 *	6.1 *	5.5 *									

* N2O emissions included
Source: France Report 2007

Figure 1. Share by sector of 2010 greenhouse gas emissions according to the "With existing measures" projections



Source: France Report 2007

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

	Base year*	2010	2010, % of base year level	2015	2015, % of base year level	2020	2020, % of base year level
Total (excluding LUCF)	564.0	545.0	96.6%	520.0	92.2%	494.0	87.6%

* Base year is 1990 for all gases
Source: France Report 2007

The "With measures" projections show that France will just not be able to reach its commitment of greenhouse gas stabilisation under the EU burden sharing agreement with the current policies and measures (Table 10). If additional measures are implemented and deliver as projected, France expects to exceed its target by 3.4%.

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*	545	568.0	564.0	100%
Kyoto Commitment/burden sharing	545	568.0	564.0	0.0%
With existing P&Ms projections	594.3	603.0	569.0	100.9%
Gap (-ve means overachievement of target)	49.3	35.0	5.0	0.9%
With additional P&Ms projections	536	568.0	545.0	96.6%
Remaining gap	-9.0	0.0	-19.0	-3.4%

Above table excludes LUCF. LUCF will be covered in the main report, based on the questionnaire submissions. Source for 2005 data is Third National Communication. Source for 2006 data is Fourth National Communication. Source for 2007 data is France Report 2007.

* 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 (563,9 MtCO₂.eq). This data is currently undergoing a review procedure by UNFCCC and is therefore subject to change.

In table 11 it is shown, that a comparison can not be drawn for the projections for the trading sector between the 'with measure' variant of the France Report 2007 and the NAP 2. In France Report 2007 total GHG emissions resulting from industrial processes are not indicated and disaggregation of energy emissions is not suitable.

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

	Included emissions	France Report 2007 (with measures)	NAP 2 projections	Difference
Energy sector	CO ₂	148 ^a	174,1 ^b	--
Energy sector included in EU ETS	CO ₂	--	67,11	--
Industry sector	all GHG	--	51,1 ^c	--
Industry sector included in EU ETS	CO ₂	--	76,34 ^d	--
Total Energy & Industry	all GHG	--	225,2	--

Energy use from industry is normally included in the energy sector for projections under the UNFCCC and included in the industry sector for NAP 2 projections. Due to these and other differences in the sector definitions projections for the individual sectors might not be comparable.

^a Included are emissions from the sectors energy production, industry, fugitive emissions.

^b Included are emissions from the sectors the sectors energy industries (1.A.1), Manufacturing industries and construction (1.A.2), Other (1.A.5), Fugitive emissions from fuels (1.B), Solvent and other product use(3), Other (7)

^c Included are emissions from the sector industrial processes

^d Included are several combustion installation from industry

8. DESCRIPTION OF MODELLING APPROACH

The French Report 2007 gives only some general explanations on the modelling approach applied. For the final energy demand by sector a technical-economic model has been used. The effects of the EU emissions trading system are not included in the model but simulated based on different CO₂ price assumptions. Starting year for the projections is 2005. Non-energy related projections are based on expert judgements and information from business associations. Population assumptions are given excluding overseas territories and departments although the emission projections include overseas departments.

Parameters used in the projections are given in the Table below.

Modelling parameters

Parameter	2010	2020	Unit
Population	62.3	64.9	Millions
GDP growth	1.9	2.3	%/yr
Annual growth			
Industry	1.6	2.2	%/yr
Agriculture	1.8	1.3	%/yr
Construction industry	0.7	1.1	%/yr
Tertiary	2.1	2.8	%/yr
International oil price	39.7	38.7	€ (2005)/barrel
International gas price	4.6	4.5	€ (2005)/Mbtu
International coal price	44.4	46.2	€ (2005)/tonne
	583	627	TWh
Total electricity production WM (WAM)			
Nuclear	430	442	TWh
Hydro	70	70	TWh
Windpower WM, (WAM)	10 (19)	20 (45)	TWh
Decentralised	20	30	TWh
Thermal WM, (WAM)	53 (51)	65 (40)	TWh
Coal WM, (WAM)	30 (27)	32 (16)	TWh
Gas WM, (WAM)	18	30 (20)	TWh
Road traffic, metropolitan (disaggregated)			
WM, (WAM)	635 (632)	730 (723)	Gveh. Km
Freight traffic, metropolitan (disaggregated)	349	427	Gtkm
Livestock numbers			
Dairy cattle	3,691	3,691	1,000s
Non-dairy cattle	15,454	15,454	1,000s
Swine	10,791	10,791	1,000s
Sheep	8,748	8,748	1,000s
Goats	1,223	1,223	1,000s
Poultry	249,570	226,966	1,000s
Horses and asses	458	458	1,000s
	2,233	2,163	
Mineral fertilisation WM, (WAM)	(2,133)	(2,063)	N kt
Waste amount WM, (WAM)	86.9 (79.3)	101 (79.3)	Mt
Incineration WM, (WAM)	14.6 (13.4)	17 (13.4)	Mt
Landfill WM, (WAM)	27.5 (25.1)	32 (25.1)	Mt
Organic treatment WM, (WAM)	4.9 (4.4)	5.6 (4.4)	Mt

Source: France Report 2007

9. PROJECTION INDICATOR REPORTING

Indicators for the projections were not reported in the France Report 2007.

10. REPORTING OF PARAMETERS ON PROJECTIONS

Parameters for the projections were not reported in the France Report 2007.

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

Indicators for projections were not reported in the France Report 2007.

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

List of Parameters used in the projections were not reported in the France Report 2007

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

11. COUNTRY CONCLUSIONS

The French Report 2007 includes comprehensive information on policies and measures as well as projections. Compared to the information provided in the 4th national communication the level of detail has decreased, especially estimated emission reductions of individual measures are lacking. The information on projections by sector and gas is incomplete, but national totals seem to include all sectors and gases.

With the policies and measures included in the 'with measures' scenario France will not be able to meet its burden sharing commitment of stabilising 1990 emissions by 2010 completely. The gap of 5 Mt CO₂ eq., or about 1 % of base year emissions; an overachievement of the target by -3.4 % is projected in the 'with additional measures' scenario. France has started to implement institutional steps necessary for using the Kyoto mechanisms but intends to meet its Kyoto target through domestic action alone. France encourages French companies to participate in JI and CDM projects and estimates this engagement with 15.3 Mt CO₂eq reductions in 2010 within the EU emission trading. Emission trading is not included in the 'with measures' scenario but in 'with additional measures' scenario. In 4th NC reductions from EU-ETS are estimated to be 1.9 Mt CO₂eq. With these reductions France could achieve its target without the need for adopting new measures, provided that existing measures and EU-ETS deliver as estimated in the projections.

Changes compared to last year

In the year 2006 the gap between burden sharing commitment and the 'with measures' scenario was estimated at 35 Mt CO₂eq. In the 'with additional measures' variant emissions were projected to meet Kyoto commitment exactly, while the new projections project an overachievement of -19 Mt CO₂eq below 1990 levels in 2010.