



Annual status report of the annual inventory of Luxembourg

1. This status report was prepared by the secretariat as part of the initial check of the annual inventory submitted in accordance with decision 15/CMP.1. It reflects the content of the inventory submission of 2009 as originally submitted by the Party.
2. In this report, the following abbreviations are used:

A: afforestation
AAU: assigned amount unit
CER: certified emission reduction
CM: cropland management
CRF: common reporting format
D: deforestation
ERU: emission reduction unit
FM: forest management
GM: grazing land management
GHG: greenhouse gas
KP-LULUCF: Article 3, paragraphs 3 and 4,
activities under the Kyoto Protocol
ICER: long-term certified emission
reduction
LULUCF: land use, land-use change and
forestry
NIR: national inventory report
R: reforestation
RMU: removal unit
RV: revegetation
SBDT: sectoral background data tables
SEF: standard electronic format
tCER: temporary certified emission
reduction

Notation keys

C: confidential
IE: included elsewhere
NA: not applicable
NE: not estimated
NO: not occurring

Greenhouse gases

CO₂: carbon dioxide
CH₄: methane
N₂O: nitrous oxide
HFCs: hydrofluorocarbons
PFCs: perfluorocarbons
SF₆: sulphur hexafluoride
NO_x: nitrogen oxides
CO: carbon monoxide
NMVOCs: non-methane volatile organic
compounds
SO₂: sulphur dioxide

GREENHOUSE GAS INVENTORY SUBMISSION												
General information			Date of receipt			Date of resubmission			Comments			
	NIR		28 May 2009			12 June 2009						
	CRF tables ^a		19 May 2009									
	Additional information ^b											
	CRF provided for years		1990–2007									
	Base year or period ^c		1990			Base year for HFCs, PFCs and SF ₆ ^d			1995			
	Gases covered		CO ₂	CH ₄	N ₂ O	HFCs	PFCs	SF ₆	NO _x	CO	NMVOCS	SO ₂
			✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
NIR	Description		The organization of the NIR, in general, follows the structure outlined in the revised UNFCCC reporting guidelines ^e (decision 18/CP.8). However, some of the recommended annexes such as “Key categories”, “Detailed discussion of methodology and data for estimating CO ₂ emissions from fossil fuel combustion”, “CO ₂ reference approach and comparison with sectoral approach, and relevant information on the national energy balance”, “Assessment of completeness and (potential) sources and sinks of greenhouse gas emissions and removals excluded” and “Tables 6.1 and 6.2 of the IPCC good practice guidance” are not provided. In its response to the draft status report, Luxembourg informed information on these items are described in relevant section of the NIR as following; key categories (tables 1-5 and 1-8 in chapter 1.4); detailed discussion of methodology and data for estimating CO ₂ emissions from fossil fuel combustion (chapter 3); CO ₂ reference approach and comparison with sectoral approach, and relevant information on the national energy balance chapter 3.3 and section 2.2.5.2); assessment of completeness (chapter 1.7); and tables 6.1 and 6.2 of the IPCC good practice guidance (chapter 1.6).									
	Language of NIR		English									
CRF	Missing source category larger than 7 per cent for categories included in Annex A to the Kyoto Protocol		No missing source category larger than 7 per cent has been identified.									

SUBMISSION OF SUPPLEMENTARY INFORMATION UNDER ARTICLE 7.1								
Voluntary reporting of supplementary information ^f			Date of receipt		Date of resubmission		Comments	
	KP-LULUCF information ^h							
	KP-LULUCF CRF ⁱ						CRF provided for years:	
	Information on Kyoto units (ERUs, CERs, RMUs and AAUs) ^j							
	SEF ^k with Kyoto units		19 May 2009					
	Change in national system ^l							
	Change in national registry ^l							
	Minimization of adverse impacts ^l							

^a CRF tables are contained in document FCCC/SBSTA/2006/9, annex II.

^b Additional information can be any information submitted by a Party in conjunction with the NIR or CRF tables.

^c Parties included in Annex I to the Convention undergoing the process of transition to a market economy may use a base year or a period of years other than 1990, in accordance with the provisions of Article 4, paragraph 6, of the Convention and decisions 9/CP.2 and 11/CP.4.

^d A Party may select 1990 or 1995 as the base year for the fluorinated gases in accordance with Article 3, paragraph 8, of the Kyoto Protocol.

^e “Guidelines for the preparation of national communications by Parties included in Annex I to the Convention, Part I: UNFCCC reporting guidelines for annual inventories” (FCCC/SBSTA/2006/9).

^f A Party has not reported an estimate for an Annex A category that accounted for 7 per cent or more of the Party’s aggregate emissions (decision 15/CMP.1, para. 3 (b)).

^g Parties are required to submit supplementary information under Article 7, paragraph 1, of the Kyoto Protocol from the 2010 submission; however, they may elect to submit this information on a voluntary basis before this submission.

^h Parties are required to include in their annual inventories information on anthropogenic GHG emissions by sources and removals by sinks from LULUCF activities under Article 3, paragraph 3, of the Kyoto Protocol, and, if any, elected activities under Article 3, paragraph 4, in accordance decision 15/CMP.1, annex, paragraphs 5–9.

ⁱ Parties are required to report anthropogenic GHG emissions by sources and removals by sinks from LULUCF activities under Article 3, paragraph 3, of the Kyoto Protocol, and, if any, elected activities under Article 3, paragraph 4, using the agreed CRF tables adopted under decision 6/CMP.3. Parties are required to report these tables on a mandatory basis commencing with the 2010 submission; however, they may elect to report these tables on a voluntary basis before this submission. Parties may also elect to report these tables for the base year or 1990.

^j Parties are required to include in their annual inventory information on ERUs, CERs, tCERs, ICERs, AAUs and RMUs, in accordance with decision 15/CMP.1, annex, section E.

^k SEF for reporting Kyoto Protocol units, as adopted under decision 14/CMP.1 and required by decision 15/CMP.1, annex, paragraph 11.

^l The requirements for Parties to report on changes in national systems in accordance with Article 5, paragraph 1, changes in national registries, and the minimization of adverse impacts in accordance with Article 3, paragraph 14, are set out in sections F, G and H, respectively, of the annex to decision 15/CMP.1.

PART I															
Provision of information for the latest reported inventory year in the common reporting format: 2007															
Tables		Energy		Industrial processes		Solvent and other product use		Agriculture		LULUCF		KP-LULUCF ^a		Waste	
	Sectoral report tables	1	✓	2(I)	✓	3	✓	4	✓	5	✓	5(KP)		6	✓
				2(II)	✓										
	Sectoral background data tables	1.A(a)	✓	2(I).A-G	✓	3.A-D	✓	4.A	✓	5.A	✓	5(KP-I)A.1.1		6.A	✓
		1.A(b)	✓	2(II).C	✓			4.B(a)	✓	5.B	✓	5(KP-I)A.1.2		6.B	✓
		1.A(c)	✓	2(II).E	✓			4.B(b)	✓	5.C	✓	5(KP-I)A.1.3		6.C	✓
		1.A(d)	✓	2(II).F				4.C	✓	5.D	✓	5(KP-I)A.2			
		1.B.1	✓					4.D	✓	5.E	✓	5(KP-I)A.2.1			
		1.B.2	✓					4.E	✓	5.F	✓	5(KP-I)B.1			
		1.C	✓					4.F	✓	5 (I)	✓	5(KP-I)B.2			
Bunkers separately		✓							5 (II)	✓	5(KP-I)B.3				
										5 (III)	✓	5(KP-I)B.4			
										5 (IV)	✓	5(KP-II)1			
									5 (V)	✓	5(KP-II)2				
											5(KP-II)3				
											5(KP-II)4				
											5(KP-II)5				
											Accounting table				
Summary tables	Summary 1.A			✓	Summary 1.B			✓	Summary 2			✓			
Other tables	Summary 3			✓	Table 7 (Key categories)			✓	Table 9(a) (Completeness)			✓			
	Table 10 (Trends)			✓					Table 9(b) (Completeness)						
Comments															
Totals	Provided for gases	CO ₂ ✓		CH ₄ ✓		N ₂ O ✓		HFCs ✓		PFCs		SF ₆ ✓			
	Provided for years	1990–2007		1990–2007		1990–2007		1990–2007				1990–2007			
CO ₂	Comparison of CO ₂ from fuel combustion	Reference approach			Sectoral approach			Difference more than 2 per cent			If difference is more than 2 per cent				
		✓			✓			✓			Explanation provided ✓				
HFCs, PFCs, SF ₆	Disaggregation by species				HFCs			PFCs			SF ₆				
					✓										
HFCs, PFCs, SF ₆	Reporting of actual and/or potential emission estimates in the consumption of halocarbons and SF ₆				Actual	Potential	Actual	Potential	Actual	Potential	Actual	Potential			
					✓						✓				
Notation keys	Used in	Summary table 1.A			✓	Sectoral report tables			✓	Sectoral background data tables			✓		
	Comments														

^a Parties are required to report anthropogenic GHG emissions by sources and removals by sinks from LULUCF activities under Article 3, paragraph 3, of the Kyoto Protocol, and , if any, elected activities under Article 3, paragraph 4, using the agreed CRF tables adopted under decision 6/CMP.3.

PART II Provision of common reporting format tables for years reported																					
		Years																		Information gaps relating to reporting ^b	Comments
		Base year ^a	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006		
Energy	Sectoral report: Table 1		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
	SBDT	Table 1.A(a)	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
	Table 1.A(b)	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
	Table 1.A(c)	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
	Table 1.A(d)	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
	Table 1.B.1		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	No numerical data are reported in this table, but notation key NO is used.
	Table 1.B.2	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
Table 1.C	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		
Industrial processes	Sectoral reports:	Table 2(I)	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
		Table 2(II)	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
	SBDT	Table 2(I).A-G	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
		Table 2(II).C	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	No numerical data are reported in these tables, but notation keys NO, NA are used.s
		Table 2(II).E	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
		Table 2(II).F																			
Solvent use	Sectoral report: Table 3		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
	SBDT	Table 3.A-D	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	

PART II																					
Provision of common reporting format tables for years reported (continued)																					
		Years																	Information gaps relating to reporting ^b	Comments	
		Base year ^a	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005			2006
Agriculture	Sectoral report: Table 4		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
	Table 4.A		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
	Table 4.B(a)		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
	Table 4.B(b)		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
	Table 4.C		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	No numerical data are reported in this table, but notation keys NO, NA are used.
	Table 4.D		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
	Table 4.E		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	No numerical data are reported in this table, bu notation key NA is used.
Table 4.F		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		
LULUCF	Sectoral report: Table 5		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
	Table 5.A		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
	Table 5.B		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
	Table 5.C		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
	Table 5.D		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
	Table 5.E		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
	Table 5.F		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
	Table 5 (I)		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	No numerical data are reported in this table, but notation keys NE, NO are used.
	Table 5 (II)		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	No numerical data are reported in this table, but notation keys NO, NA are used.
	Table 5 (III)		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
	Table 5 (IV)		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
Table 5 (V)		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	No numerical data are reported in this table, but notation keys NE, NO are used.	

PART II
Provision of common reporting format tables for years reported (continued)

		Years																		Information gaps relating to reporting ^b	Comments		
		Base year ^a	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006			2007	
Waste	Sectoral report: Table 6		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓			
	Table 6.A		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓			
	Table 6.B		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓			
	Table 6.C		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		No numerical data are reported in this table, but notation key IE is used.	
Summary and other tables	SBDT	Summary 1.A		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓			
		Summary 1.B		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		
		Summary 2 (CO ₂ equivalent emissions)		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		
		Summary 3 (Methods/emission factors)		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		
		Table 7 (Key categories)		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		
		Table 8(a) (Recalculation – recalculated data)		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		
		Table 8(b) (Recalculation – explanatory information)		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		
		Table 9(a) (Completeness)		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		
		Table 9(b) (Completeness)																					
		Table 10 (Trends)		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		

^a Parties included in Annex I to the Convention undergoing the process of transition to a market economy are allowed to use a base year or a period of years other than 1990, in accordance with the provisions of Article 4, paragraph 6, of the Convention and decisions 9/CP.2 and 11/CP.4.

^b This column indicates that reporting gaps (blank cells) have been identified in a given table of the CRF. This was owing to limited use, or lack, of notation keys (NO, NE, NA, IE, C).

^c Parties are required to report anthropogenic GHG emissions by sources and removals by sinks from LULUCF activities under Article 3, paragraph 3, of the Kyoto Protocol, and, if any, elected activities under Article 3, paragraph 4, using the agreed CRF tables adopted under decision 6/CMP.3. Parties are required to report these tables on a mandatory basis commencing with the 2010 submission; however, they may elect to report these tables on a voluntary basis before this submission. Parties may also elect to report these tables for the base year or 1990.

PART III Provision of information relating to recalculations						
Table 8(a) (Recalculated data)	✓	Comments				
Recalculation reported for years	1990–2006					
Recalculated sectors/gases	Energy	Industrial processes	Solvent and other product use	Agriculture	LULUCF	Waste
CO ₂	✓	✓	✓		✓	
CH ₄	✓			✓	✓	✓
N ₂ O	✓			✓	✓	✓
HFCs						
PFCs						
SF ₆						
Table 8(b) (Explanatory information)	✓	✓	✓	✓	✓	✓
Percentage difference in aggregate greenhouse gas emission	base year estimate: ^a		with LULUCF: 3.37 %		without LULUCF: –0.52 %	
	latest recalculated year: ^b		with LULUCF: –0.86 %		without LULUCF: –0.13 %	

^a Parties included in Annex I to the Convention undergoing the process of transition to a market economy are allowed to use a base year or a period of years other than 1990, in accordance with the provisions of Article 4, paragraph 6, of the Convention and decisions 9/CP.2 and 11/CP.4.

^b The latest recalculated year is the submission year minus 3.

PART IV			Provided	Comments
Provision of information relating to KP-LULUCF activities under Article 3, paragraphs 3 and 4 ^a				
Reporting requirements under decision 15/CMP.1, annex, paragraphs 5-9	Emissions by sources and removals by sinks are clearly distinguished from emissions from categories included in Annex A to the Kyoto Protocol.			
	Information on how inventory methodologies have been applied taking into account IPCC good practice guidance for LULUCF^b and decision 16/CMP.1.			
	Information on geographical location of the boundaries of areas that encompass:			
		Units of land subject to activities under Article 3.3		
		Units of land subject to activities under Article 3.3, which would otherwise be included in land subject to elected activities under Article 3.4		
		Land subject to elected activities under Article 3.4		
	Information on the spatial assessment unit for determining the area of accounting for afforestation, reforestation and deforestation.			
	Information on GHG emissions/removals resulting from activities under Article 3.3 and 3.4, for all geographical locations reported in the current and previous years since the beginning of the commitment period or the onset of the activity, whichever comes later.			
	Information on carbon pools (above-ground/below-ground biomass, litter, dead wood and soil organic carbon) that are not accounted for.			
	Information on anthropogenic GHGs from LULUCF activities under Article 3.3 and 3.4 factoring out removals from:			
		Elevated CO ₂ concentrations above pre-industrial levels		
		Indirect nitrogen deposition		
		The dynamic effects of age structure resulting from activities prior to 1 January 1990		
	Specific information to be reported for Article 3.3 activities:			
		Activities under Article 3.3 that began on or after 1 January 1990 and before 31 December of the last year of the commitment period		
		How harvesting or forest disturbance that is followed by the re-establishment of forest is distinguished from deforestation		
		Emissions/removals from lands harvested during the first commitment period following afforestation and reforestation on these units of land since 1990		
Specific information to be reported for Article 3.4 activities:				
	Activities under Article 3.4 that occurred since 1 January 1990 and are human induced			
	Cropland management, grazing land management, revegetation: emissions/removals reported for each year of the commitment period and for the base year for each of the elected activities on the geographical locations reported			
	Emissions/removals from Article 3.4 activities that are not accounted for under activities under Article 3.3			
	Forest management: information on the extent to which GHG removals by sinks offsets the debit incurred under Article 3.3			

^a Parties are required to report anthropogenic GHG emissions by sources and removals by sinks from LULUCF activities under Article 3, paragraph 3, of the Kyoto Protocol, and, if any, elected activities under Article 3, paragraph 4, using the agreed CRF tables adopted under decision 6/CMP.3. Parties are required to report these tables on a mandatory basis commencing with the 2010 submission; however, they may elect to report these tables on a voluntary basis before this submission. Parties may also elect to report these tables for the base year or 1990.

^b The Intergovernmental Panel on Climate Change *Good Practice Guidance for Land Use, Land-Use Change and Forestry*.