

UNFCCC

United Nations

## Framework Convention on Climate Change

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English only

## Annual status report of the annual inventory of Liechtenstein

1. This status report was prepared by the expert review team 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 2011 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 SOPU: solvent and other product use tCER: temporary certified emission

reduction

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

Greenhouse gases CO<sub>2</sub>: carbon dioxide CH<sub>4</sub>: methane N<sub>2</sub>O: nitrous oxide HFCs: hydrofluorocarbons PFCs: perfluorocarbons SF<sub>6</sub>: sulphur hexafluoride NO<sub>X</sub>: nitrogen oxides CO: carbon monoxide NMVOCs: non-methane volatile organic compounds SO<sub>2</sub>: sulphur dioxide



			GI	REENHO	USE GAS I	INVENTORY S	UBMISS	ION			
		Date of rec	eipt I	Date of res	submission	Comments					
	NIR	15 April 20	11								
	CRF tables <sup>a</sup>	15 April 20	11								
	Additional information <sup>b</sup>	15 April 20	11			Submitted as 'ad	lditional in	nformation	' with NIF	t:	
ution						"SIAR_Report_	R-5_2010	-LI.xls";			
General information						"SIAR_Report_	R-4_2010	-LI.xls";			
ral in						"SIAR_Report_	R-3_2010	-LI.xls"; a	nd		
Gene						"SIAR_Report_	R-2_2010	-LI.xls".			
	CRF provided for years	1990–2009	•								
	Base year or period <sup>c</sup>	1990		Base ye	ar for HFCs	, PFCs and $SF_6^d$	1990				
	Gases covered	CO <sub>2</sub>	$CH_4$	$N_2O$	HFCs	PFCs	$SF_6$	NO <sub>X</sub>	СО	NMVOCs	$SO_2$
		✓ ·	<ul> <li>Image: A start of the start of</li></ul>	~	~	$\checkmark$	✓	~	~	~	~
NIR	Description	-							-	porting guidelines with annotated ou	
	Language of NIR	English									
$CRF^{f}$	Missing source category categories included in An	-	-			g source category	y larger th	an 7 per ce	ent has bee	en identified.	

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

<sup>b</sup> 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.

<sup>*e*</sup> "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)).

	SUBMISSI	ON OF SUPPLE	MENTARY INFORM	IATION UNDER ARTIC	CLE 7.1
		Date of receipt	Date of resubmission	Comments	
ation	KP-LULUCF information <sup>a</sup>	15 April 2011		NIR, Chapter 11, Page 19	9
information	KP-LULUCF CRF <sup>b</sup>	15 April 2011		CRF provided for years:	2008–2009
supplementary	Information on Kyoto units (ERUs, CERs, RMUs and AAUs) <sup>c</sup>	15 April 2011		NIR, Chapter 12, Page 21	3
lqque `	SEF <sup>d</sup> with Kyoto units	15 April 2011			
ting of	Change in national system <sup>e</sup>	15 April 2011		NIR, Chapter 13, Page 21	7
Reporting	Change in national registry <sup>e</sup>	15 April 2011		NIR, Chapter 14, Page 21	7
	Minimization of adverse impacts <sup>e</sup>	15 April 2011		NIR, Chapter 15, Page 21	8

<sup>*a*</sup> Parties are required to include in their annual submission 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 with the annex to decision 15/CMP.1, paragraphs 5–9.

<sup>b</sup> 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 may also elect to report these tables for the base year or 1990.

<sup>c</sup> Parties are required to include in their annual submission information on ERUs, CERs, tCERs, ICERs, AAUs and RMUs, in accordance with the annex to decision 15/CMP.1, section I.E.

<sup>d</sup> SEF for reporting Kyoto Protocol units, as adopted under decision 14/CMP.1 and required by the annex to decision 15/CMP.1, paragraph 11.

<sup>*e*</sup> 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 I.F, I.G and I.H, respectively, of the annex to decision 15/CMP.1.

		Provision	ofinfo	rmation for	the lates	ronorte	PAR		or in f	ha comm	n ron	orting format: 2009			
	, I	Energy		Industrial p		SOPU		Agricult		LULUC	-	KP-LULUCF <sup>a</sup>		Waste	
	Sectoral report	1	✓	2(I)	~	3	√	4	√	5	✓	5(KP)	~	6	~
	tables			2(II)	~				1						
	Sectoral	1.A(a)	~	2(I).A-G	~	3.A-D	✓	4.A	~	5.A	✓	5(KP-I)A.1.1	~	6.A	~
	background data tables	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	separat	ely 🗸						5 (II)	~	5(KP-I)B.3.	~		
səlan I										5 (III)	~	5(KP-I)B.4.	~		
										5 (IV)	~	5(KP-II)1	~		
										5 (V)	~	5(KP-II)2	~		
											1	5(KP-II)3	~		
												5(KP-II)4	~		
												5(KP-II)5	~		
												Accounting table	~		
	Summary tables	Summar	ry 1.A	~	Summ	ary 1.B		~			Sum	mary 2	1	- -	/
	Other tables	Summar	ry 3	~	Table 7	7 (Key ries)		~			Tabl	e 9(a) (Completeness)	)	,	/
		Table 10	) (Trend	s) 🗸							Tabl	e 9(b) (Completeness)	)		
	Comments			l	1						1				

<sup>*a*</sup> 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.

	Provision of i	nformation for t	he lates	st reported	PAI inventory		ommon rep	orting fo	rmat: 2009 (d	continued	l)	
ıls	Provided for gases	CO <sub>2</sub> ✓	CH4	<b>~</b>	$N_2O$	<b>~</b>	HFCs 🖌		PFCs 🖌	-	SF <sub>6</sub> v	/
Totals	Provided for years	1990–2009	1990–	2009	1990-	-2009	1990–2009		1998–2009	]	1996-	2009
		Reference appro	bach	Sectoral a	pproach	Difference m	ore than 2 p	oer cent	If difference	e is more	than 2	e per cent
$CO_2$	Comparison of CO <sub>2</sub> from fuel combustion	<b>v</b>		<b>~</b>					Explanation provided	1		
$SF_6$		•			HFCs	•	PFCs			$SF_6$		
	Disaggregation by sp	ecies			~		~					
5	Reporting of actual a	-			Actual	Potential	Actual	Potenti	al	Actual		Potential
HF	estimates in the categ and SF <sub>6</sub>	ory consumptior	n of hal	ocarbons	~	~	~	√		~		✓
tion vs	Used in	Summary table .	1.A	~	Sectoral	report tables	~	Sector	al backgrour	nd data ta	bles	<b>~</b>
Notation keys	Comments			•							•	

6

																PART II	
				1						Prov	ision	of c	omn	ion	repor	ting format tables for y	years reported
				Years													
				Base		2			~	1		2	7	~		Information gaps	
	-			year <sup>a</sup>	0661	1995	2000	2002	2003	2004	2005	2006	2007	2008	2009	relating to reporting <sup>b</sup>	Comments
	Sect	oral report: ta	able 1		~	~	✓	~	~	~	~	~	~	~	~		
		Table 1.A(a)	)		~	~	~	~	~	~	~	~	~	~	~		
		Table 1.A(b)	)		~	~	~	~	~	~	~	~	~	~	~	$\checkmark$	
rgy		Table 1.A(c)	)		~	~	~	~	~	~	~	~	~	~	~		
Energy	SBDT	Table 1.A(d)	)		~	~	~	~	~	~	~	~	~	~	~		No numerical data are reported in this table. The notation key NO is used.
		Table 1.B.1			~	~	~	~	~	~	~	~	~	~	~		No numerical data are reported in this table. The notation keys NO, NA are used.
		Table 1.B.2			~	~	~	~	~	~	~	~	~	√	~		
		Table 1.C			~	~	~	~	~	~	~	~	~	~	~		
	Sect		Table 2(I)		~	~	~	~	~	~	~	~	~	~	~		
	repo	ns:	Table 2(II)		~	~	~	~	~	~	~	~	~	~	~		
cesses		Table 2(I).A	–G		~	~	~	~	~	~	~	~	~	~	~		
ial pro		Table 2(II).C	2		~	~	✓	~	~	~	~	~	~	~	~		No numerical data are reported in this table. The notation key NO is used.
Industrial processes	SBDT	Table 2(II).E	3		~	~	~	~	~	~	~	~	~	~	~	<b>~</b>	No numerical data are reported in this table. For the years 1990–2007 the notation key NO is used. For the years 2008–2009 the notation keys NO, NA are used.
		Table 2(II).F	7		✓	~	~	~	~	~	~	~	~	~	√		

								р	Provi	sion	of co	mma	n rei	orti	PART II	ears reported (continued)
	Years															
			Base year <sup>a</sup>	0661	1995	2000	2002	2003	2004	2005	2006	2007	2008	2009	Information gaps relating to reporting <sup>b</sup>	Comments
t use	Secto	oral report: Table 3		~	~	~	~	~	~	~	~	~	~	~		
Solvent	SOPU	Table 3.A–D		~	~	~	~	~	~	~	~	~	~	~		
	Secto	oral report: Table 4		✓	~	~	~	~	~	~	~	~	~	~		
		Table 4.A		✓	~	~	~	~	~	~	~	~	~	~		
		Table 4.B(a)		~	~	~	~	~	~	~	~	~	~	~		
lture		Table 4.B(b)		~	~	~	~	~	~	~	~	~	~	~		
Agriculture	SBDT	Table 4.C		~	~	~	~	~	~	~	~	~	~	~		No numerical data are reported in this table. The notation keys NO, NA are used.
		Table 4.D		~	~	~	~	~	~	~	~	~	~	~		
		Table 4.E		~	~	~	~	~	~	~	~	~	~	~		No numerical data are reported in this table. The notation key NA is used.
		Table 4.F		~	~	~	~	~	~	~	~	✓	✓	~		No numerical data are reported in this table. The notation keys NA, NO, NE are used.

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															PART II	
								Р	rovis	sion (	of co	mmo	n rej	oorti	ng format tables for ye	ears reported (continued)
			Years					-	-		-			-		
			Base year <sup>a</sup>	0661	1995	2000	2002	2003	2004	2005	2006	2007	2008	2009	Information gaps relating to reporting <sup>b</sup>	Comments
	Secto	oral report: Table 5		~	~		~	✓	~	~	✓	~	~	~		
		Table 5.A		~	~	~	~	~	~	~	~	~	~	~		
		Table 5.B		~	~	~	~	~	~	~	~	~	~	~		
		Table 5.C		~	~	~	~	~	~	~	~	~	~	~		
		Table 5.D		~	~	~	~	~	~	~	~	~	~	~		
JCF		Table 5.E		~	~	~	~	~	~	~	~	~	~	~		
LULUCF	SBDT	Table 5.F		~	~	~	~	~	~	~	~	~	~	~		
		Table 5 (I)		~	~	~	~	~	~	~	~	~	~	~		No numerical data are reported in this table. The notation key NO is used.
		Table 5 (II)		~	~	~	~	~	~	~	~	~	~	~		1
		Table 5 (III)		~	~	~	~	~	~	~	~	~	~	~		
		Table 5 (IV)		~	~	~	~	~	~	~	~	~	~	~		No numerical data are reported in this table. The notation key NO is used.
		Table 5 (V)		√	~	~	~	~	√	~	√	~	~	~		

						D			0	PART II					
	Provision of common reporting form Years													mat tables for years	reported (continued)
		Base year <sup>a</sup>	0661	1995	2000	2002	2003	2004	2005	2006	2007	2008	2009	Information gaps relating to reporting <sup>b</sup>	Comments
Se	ctoral report: Table 5 (KP)											~	~		
	Table 5 (KP-I) A.1.1											~	~		
	Table 5 (KP-I )A.1.2											~	~		No numerical data are reported in this table for the years 2008–2009. For these years the notation key NO is used.
	Table 5 (KP-I) A.1.3											~	~		No numerical data are reported in this table for the years 2008–2009. For these years the notation key NA is used.
	Table 5 (KP-I) A.2											~	~		
	Table 5 (KP-I) A.2.1											~	~		
	Table 5 (KP-I) B.1											~	~		No numerical data are reported in this table for the years 2008–2009. For these
UCF	Table 5 (KP-I) B.2											✓	~		years the notation key NA is used.
KP-LULUCF	Table 5 (KP-I) B.3											~	~		-
K	Table 5 (KP-I) B.4											~	~		-
	Table 5 (KP-II) 1											~	~		No numerical data are reported in this table for the years 2008–2009. For these years the notation keys NO, NA are used.
	Table 5 (KP-II) 2											~	~		No numerical data are reported in this table for the years 2008–2009. For these years the notation key NA is used.
	Table 5 (KP-II) 3			1								~	~		No numerical data are reported in this table for the years 2008–2009. For these
	Table 5 (KP-II) 4											~	~		years the notation keys NO, NA are used.
	Table 5 (KP-II) 5											~	~		
Ac	counting table											~	~		

							Prov	ision	ofco	omm	on re	port			RT II at tables for years repo	rted (continued)
			Years									-	0			
			Base year <sup>a</sup>	0661	1995	2000	2002	2003	2004	2005	2006	2007	2008	2009	Information gaps relating to reporting <sup>b</sup>	Comments
	Sect	oral report: Table 6		~	~	~	~	~	~	~	~	~	~	~		
ste		Table 6.A		~	~	~	~	~	~	~	~	~	~	~		
Waste	SBDT	Table 6.B		~	~	~	~	~	~	~	~	~	~	~		
		Table 6.C		~	~	~	~	~	~	~	~	~	~	~		
		Summary 1.A		~	~	~	~	~	~	~	~	~	~	~		
		Summary 1.B		~	~	~	~	~	~	~	~	~	~	~		
		Summary 2 (CO <sub>2</sub> equivalent emissions)		~	~	~	~	~	~	~	~	~	~	~		
tables		Summary 3 (Methods/emission factors)		~	~	~	~	~	~	~	~	~	~	~		
other	T	Table 7 (Key categories)							~	~	~	~	~	~		
Summary and other tables	SBDT	Table 8(a) (Recalculation – recalculated data)		~	~	~	~	~	~	~	~	~	~			
Sun		Table 8(b) (Recalculation – explanatory information)														
		Table 9(a) (Completeness)	1	~	~	~	~	~	~	~	~	~	~	~		
		Table 9(b) (Completeness)														
		Table 10 (Trends)		~	~	~	~	~	~	~	~	~	~	~		

<sup>*a*</sup> 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/CP2 and 11/CP4.

<sup>b</sup> 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).

			PART III			
		Provision of info	ormation relating to recalc	ulations		
Table 8(a) (Recalculated data)	$\checkmark$	Comments				
Recalculation reported for years	1990–2008					
Recalculated sectors/gases	Energy	Industrial processes	Solvent and other product use	Agriculture	LULUCF	Waste
CO <sub>2</sub>	$\checkmark$		✓		✓	
CH <sub>4</sub>	$\checkmark$			$\checkmark$		
N <sub>2</sub> O	$\checkmark$		✓	$\checkmark$	✓	$\checkmark$
HFCs		×				
PFCs		×				
$SF_6$						
Table 8(b) (Explanatory information)						
Percentage difference in aggregat	e greenhouse gas	Base year estimate: <sup>a</sup>	with LULUCF:	0.01 %	without LULUCF:	0.01 %
emission		Latest recalculated year: <sup>b</sup>	with LULUCF:	0.11 %	without LULUCF:	0.01 %

<sup>a</sup> 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.
 <sup>b</sup> The latest recalculated year is the submission year minus 3.

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		PART IV		
		Provision of information relating to KP-LULUCF activities under	Article 3, pa	aragraphs 3 and 4
			Provided	Observation
		ons by sources and removals by sinks are clearly distinguished from emissions from categories d in Annex A to the Kyoto Protocol	~	
6		ation on how inventory methodologies have been applied taking into account IPCC good practice ee for LULUCF <sup>a</sup> and decision 16/CMP.1	~	
Ŷ	Informa	ation on geographical location of the boundaries of areas that encompass:		
ragral		Units of land subject to activities under Article 3.3	✓	
annex, pa		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		Liechtenstein did not elect any activity under Article 3, paragraph 4.
MP.1,		Land subject to elected activities under Article 3.4		
sion 15/C		ation on the spatial assessment unit for determining the area of accounting for afforestation, ation and deforestation	~	
Reporting requirements under decision 15/CMP.1, amex, paragraphs	geograp	ation on GHG emissions/removals resulting from activities under Article 3.3 and 3.4, for all obtical locations reported in the current and previous years since the beginning of the commitment or the onset of the activity, whichever comes later	✓	
equiremen		ation on carbon pools (above-ground/below-ground biomass, litter, dead wood and soil organic that are not accounted for	~	
sporting n		ation on anthropogenic GHGs from LULUCF activities under Article 3.3 and 3.4 factoring out ls from:		
Rı		Elevated CO <sub>2</sub> concentrations above pre-industrial levels	✓	
		Indirect nitrogen deposition	✓	
		The dynamic effects of age structure resulting from activities prior to 1 January 1990	✓	

<sup>a</sup> The Intergovernmental Panel on Climate Change Good Practice Guidance for Land Use, Land-Use Change and Forestry.

		PART IV		
		Provision of information relating to KP-LULUCF activities under Art	icle 3, paragr	aphs 3 and 4 (continued)
			Provided	Observation
6	Specifi	c information to be reported for Article 3.3 activities:		
graphs 5–		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, and are directly human induced	~	
mex, para		How harvesting or forest disturbance that is followed by the re-establishment of forest is distinguished from deforestation	~	
CMP.1, an		Emissions/removals from lands harvested during the first commitment period following afforestation and reforestation on these units of land since 1990	~	
on 15/0	Specifi	c information to be reported for Article 3.4 activities:		
decisia		Activities under Article 3.4 that occurred since 1 January 1990 and are human induced		Liechtenstein did not elect any activity under Article 3,
Reporting requirements under decision 15/CMP.1, annex, paragraphs		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		– paragraph 4.
ng require		Emissions/removals from Article 3.4 activities that are not accounted for under activities under Article 3.3		
Reportii		Forest management: information on the extent to which GHG removals by sinks offsets the debit incurred under Article 3.3		