Second Biennial Report of Luxembourg under the United Nations Framework Convention on Climate Change

addendum to the CTF Tables

31 May 2016

Aménagement du territoire
Environnement
Transports
Travaux publics

Pour
un développement
durable

LE GOUVERNEMENT
DU GRAND-DUCHÉ DE LUXEMBOURG
Ministère du Développement durable
et des Infrastructures

A bug in CTF Reporter leads to missing references and numbering for users' footnotes once tables are exported (in PDF): only the text of the footnotes remains but it is not linked anymore to an entry or a cell of the related table.

This short addendum compiles screen captures made in the CTF Reporter so that reviewers can link each footnote with an entry or cell in the corresponding table.

Table 2

Table 2: Description of quantified economy-wide emission reduction target [a]

Emission reduction target: base year and target	
Base year/ base period (1)	1990
Emission reductions target (% of base year/base period) (2)	20.00
Emission reductions target (% of 1990) [b] (3)	20.00
Period for reaching target (4)	BY-2020

Gases and sectors covered. GWP values.

Gases covered	Covered	Base Year	GWP[c] reference source
CO_2 (5)	Yes	1990	4th AR
CH_4 (6)	Yes	1990	4th AR
N_2O (7)	Yes	1990	4th AR
HFCs (8)	Yes	1990	4th AR
PFCs (9)	Yes	1990	4th AR
SF_6 (10)	Yes	1990	4th AR
NF_3	No	NA	4th AR

Other gases (specify) [d]

Add a gas

Sectors covered [e]	Covered
Energy	Yes
Transport[f]	Yes
Industrial processes[g]	Yes
Agriculture	Yes
LULUCF	No
Waste	Yes

Other sectors (specify) [h]

Aviation in the scope of the EU ETS (11)	Yes

Role of LULUCF sector

LULUCF in base year level and target (12)	Excluded
Contribution of LULUCF is calculated using	Other (NA)

Market-based mechanisms

Possible scale of contributions of market-based mechanisms under the Convention (estimated kt CO_2 eq) (13)	NE, NA
CERs (14)	NE, NA
ERUs (15)	NE, NA
AAUs[i] (16)	NE, NA
Carry-over units[j] (17)	NE, NA
Other mechanism units under the Convention (specify)[k] (18)	

No records to display.

Please, specify

Possible scale of contributions of other market-based mechanisms (estimated kt CO_2 eq) (19)	

No records to display.

Please, specify

Any other information

Any other information:[l] (20)	See footnote 20 for details.

① Legally binding target trajectories for the period 2013-2020 are enshrined in both the EU-ETS Directive (Directive 2003/87/EC and respective amendments) and the Effort-Sharing Decision (Decision No 406/2009/EC). These legally binding trajectories not only result in a 20% GHG reduction in 2020 compared to 1990 but also define the EU's annual target pathway to reduce EU GHG emissions from 2013 to 2020. The Effort-Sharing Decision sets annual national emission targets for all Member States for the period 2013-2020 for those sectors not covered by the EU emissions trading system (ETS), expressed as percentage changes from 2005 levels. In March 2013, the Commission formally adopted the national annual limits throughout the period for each Member State. By 2020, the national targets will collectively deliver a reduction of around 10% in total EU emissions from the sectors covered compared with 2005 levels. The emission reduction to be achieved from the sectors covered by the EU ETS will be 21% below 2005 emission levels.
② See first footnote.
③ See first footnote.
④ See first footnote.
⑤ As adopted in UNFCCC reporting guidelines for national GHG inventories of Annex I Parties and as adopted under the EU Monitoring Mechanism Regulation.
⑥ As adopted in UNFCCC reporting guidelines for national GHG inventories of Annex I Parties and as adopted under the EU Monitoring Mechanism Regulation.
⑦ As adopted in UNFCCC reporting guidelines for national GHG inventories of Annex I Parties and as adopted under the EU Monitoring Mechanism Regulation.
⑧ As adopted in UNFCCC reporting guidelines for national GHG inventories of Annex I Parties and as adopted under the EU Monitoring Mechanism Regulation.
⑨ As adopted in UNFCCC reporting guidelines for national GHG inventories of Annex I Parties and as adopted under the EU Monitoring Mechanism Regulation.
⑩ As adopted in UNFCCC reporting guidelines for national GHG inventories of Annex I Parties and as adopted under the EU Monitoring Mechanism Regulation.
⑪ In principle, the EU ETS should cover CO2 emissions from all flights falling within the aviation activities listed in Annex I of the EU ETS Directive which depart from an aerodrome situated in the territory of a Member State, Norway, Iceland and Liechtenstein and closely related territories, and those which arrive in such an aerodrome from a third country, excluding small commercial emitters. Since 2012, flights to and from aerodromes from other countries have not been included in the EU ETS. This exclusion was taken in order to facilitate negotiation of a global agreement to address aviation emissions in the forum of the International Civil Aviation Organisation (ICAO). The EU has decided on a reduced scope in the 2013–2016 period (Regulation (EU) No 421/2014 of the European Parliament and of the Council of 16 April 2014).
⑫ The EU pledge does not include emissions/removals from Land Use, Land-Use Change and Forestry to deliver its firm independent commitment to reduce greenhouse gas emissions by at least 20% compared to 1990 by 2020. The EU LULUCF sector is however estimated to be a net sink over that period.
⑬ The 2020 Climate and Energy Package allows Certified Emission Reductions (CERs) and Emission Reduction Units (ERUs) to be used for compliance purposes, subject to a number of restrictions in terms of origin and type of project and up to an established limit. In addition, the legislation foresees the possible recognition of units from new market mechanisms. Under the EU ETS the limit does not exceed 50% of the required reduction below 2005 levels. In the sectors not covered by the ETS, annual use shall not exceed to 3 % of each Member States' non-ETS greenhouse gas emissions in 2005. A limited number of Member States may use an additional 1%, from projects in LDCs or SIDS subject to conditions.
⑭ The use of these units under the ETS Directive and the Effort Sharing Decision is subject to the limits specified above (footnote 13) which do not separate between CERs and ERUs, but include additional criteria for the use of CERs.
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⑯ AAUs for the period 2013-2020 have not yet been determined. The EU expects to achieve its 20% target for the period 2013-2020 with the implementation of the ETS Directive and the ESD Decision in the non-ETS sectors, which do not allow the use of AAUs from non-EU Parties.
⑰ At CMP.9, the EU made a declaration, when adopting the Doha amendment to the Kyoto Protocol, that the European Union legislation on 2020 Climate and Energy Package for the implementation of its emission reduction objectives for the period 2013-2020 does not allow the use of surplus AAUs carried over from the first commitment period to meet these objectives.
⑱ There are general provisions in place in the EU legislation that allow for the use of such units provided that the necessary legal arrangements for the creation of such units have been put in place in the EU which is not the case at the point in time of the provision of this report.
⑲ None. Luxembourg does not recognise the use of market-based mechanisms other than those under the Convention for the achievements of quantified economy wide emission reduction targets.
⑳ In December 2009, the European Council reiterated the conditional offer of the EU to move to a 30% reduction by 2020 compared to 1990 levels as part of a global and comprehensive agreement for the period beyond 2012, provided that other developed countries commit themselves to comparable emission reductions and that developing countries contribute adequately according to their responsibilities and respective capabilities.
Add a footnote

Table 3

① Mitigation impact covers only biogas injection in the national distribution network.
② Mitigation impact covers only public buildings (renovation, energy monitoring, new construction concepts for public buildings).
③ Mitigation impact is covered by "energy efficiency - housing".
④ For public buildings, the mitigation impact is covered by "energy efficiency - public & commercial services, retail".
Add a footnote

Footnote ① relates to the entry "Energy supply: alternatives & renewable energy sources [02-04]";
Footnote ② relates to the entry "Energy consumption – energy efficiency: public & commercial services, retail [07-09;11;17;41]";
Footnote ③ relates to the entry "Energy consumption – renewable energy sources: housing [01;10;12;32-33;41-44]";
Footnote ④ relates to the entry "Energy consumption – renewable energy sources: public & commercial services, retail [01;11;41]".

Table 4 – Report on Progress

Table 4: Report on progress [a,b]

	Unit	Base year (1990)	2010	2011	2012	2013	2014
Total (without LULUCF) ①	kt CO_2 eq	13,274.07	13,535.46	13,325.62	12,910.55	12,351.71	12,012.82
Contribution from LULUCF [c] ②	kt CO_2 eq					NA	NA
Market-based mechanisms under the Convention ③	number of units					NE	NE
	kt CO_2 eq					NE	NE
Other market-based mechanisms ④	number of units					NA	NA
	kt CO_2 eq					NA	NA

Note: Parties may add additional columns for years other than those specified below.

Abbreviation: GHG = greenhouse gas, LULUCF = land use, land-use change and forestry.

[a] Reporting by a developed country Party on the information specified in the common tabular format does not prejudge the position of other Parties with regard to the treatment of units from market-based mechanisms under the Convention or other market-based mechanisms towards achievement of quantified economy-wide emission reduction targets.

[b] For the base year, information reported on the emission reduction target shall include the following: (a) total GHG emissions, excluding emissions and removals from the LULUCF sector; (b) emissions and/or removals from the LULUCF sector based on the accounting approach applied taking into consideration any relevant decisions of the Conference of the Parties and the activities and/or land that will be accounted for; (c) total GHG emissions, including emissions and removals from the LULUCF sector. For each reported year, information reported on progress made towards the emission reduction targets shall include, in addition to the information noted in paragraphs 9(a–c) of the UNFCCC biennial reporting guidelines for developed country Parties, information on the use of units from market-based mechanisms.

[c] Information in this column should be consistent with the information reported in table 4(a)I or 4(a)II, as appropriate. The Parties for which all relevant information on the LULUCF contribution is reported in table 1 of this common tabular format can refer to table 1.

① Total GHG emissions (excl. NF3) but including domestic and international aviation. Data are coming from the 2016v4 submission generated on 17 May 2016, early evening, and might contain errors generated by persistent small bugs in CRF Reporter.

② Nothing to report because this sector is not included under the Convention target for Luxembourg.

③ Use of CERs and ERUs cannot be quantified at the time of reporting (see Table 4(b) footnotes).

④ No "other market-based mechanisms" are used by Luxembourg.

Add a footnote

Table 4(a)I

① 2013 - nothing to report because this sector is not included under the Convention target for Luxembourg.

② 2014 - Nothing to report because this sector is not included under the Convention target for Luxembourg.

Add a footnote

Footnotes relate to the entries "Total LULUCF", once for 2013 & once for 2014.

Table 4(b)

① 2013 - since 2013, it has no longer been possible to track the use of flexible mechanisms in the EU ETS directly through information on the EUTL public website: CERs and ERUs are exchanged into EUAs and cannot be further tracked after that exchange. These exchanges will become public at installation level only two years after transfers have been conducted. Consequently, 2013 exchanges and transfers could only be reported in 2016. The use of flexible mechanisms under the ESD cannot be quantified either at this moment. Indeed, as the compliance assessment for the first year under the ESD (i.e. 2013) will only take place in 2016, any potential use of units for meeting the ESD target in 2013, or being transferred to another Member State in 2013, could only be reported in 2016.

② 2014 - since 2013, it has no longer been possible to track the use of flexible mechanisms in the EU ETS directly through information on the EUTL public website: CERs and ERUs are exchanged into EUAs and cannot be further tracked after that exchange. These exchanges will become public at installation level only two years after transfers have been conducted. Consequently, 2014 exchanges and transfers could only be reported in 2017. The use of flexible mechanisms under the ESD cannot be quantified either at this moment. Indeed, as the compliance assessment for the first year under the ESD (i.e. 2013) will only take place in 2016, any potential use of units for meeting the ESD target in 2014, or being transferred to another Member State in 2014, could only be reported in 2017.

Add a footnote

Footnotes relate to the entries "Total", once for 2013 & once for 2014.

Table 5

Table 5: Summary of key variables and assumptions u

Key underlying assumptions	Unit
Population (on 31st December) ①	thousands
GDP growth rate (per annum) ②	%
Gross electricity production: Renewables ③	TWh
Final energy consumption: Transport ④	GJ
Number of passenger-kilometres (all modes) ⑤	million pkm
Freight transport tonnes-kilometres (all modes) ⑥	million tkm
Final energy demand for road transport ⑦	GJ
Number of households ⑧	thousands
Household size ⑨	inhabitants/household
Working population ⑩	thousands
Cross-border commuters ⑪	thousands
Final energy demand for aviation ⑫	ktoe
Livestock: Dairy cattle ⑬	thousands
Livestock: Non-dairy cattle ⑭	thousands
Livestock: Sheep ⑮	thousands
Livestock: Pig ⑯	thousands
Nitrogen input from application of synthetic fertilizers ⑰	kt nitrogen
Nitrogen in crop residues returned to soils ⑱	kt nitrogen
Municipal solid waste (MSW) generation ⑲	tonnes

Please specify

① 2014 = base year for the projected estimates. 1990-2015: STATEC, Table B1100, updated 21.03.2016 (http://www.statistiques.public.lu/stat/TableViewer/tableViewHTML.aspx?ReportId=383&IF_Language=fra&MainTheme=2&FldrName=1); 2016-2035: STATEC, data prepared for the EU Working Group on Ageing Population and Sustainability - 2015 Synthesis table.
② 2014 = base year for the projected estimates. 1990-2035: STATEC, data prepared for the EU Working Group on Ageing Population and Sustainability - 2015 Synthesis table.
③ 2005 = base year for the projected estimates. Hypotheses as from "Luxembourg Action Plan for Renewable Energy", Tables 10.a and 10.b (2010). Data excludes biomass and covers small hydro power plants, solar installations and windmills.
④ 2014 = base year for the projected estimates. 2000-2014: STATEC, Table A4303, updated 19.11.2015 (http://www.statistiques.public.lu/stat/TableViewer/tableViewHTML.aspx?ReportId=6152&IF_Language=fra&MainTheme=1&FldrName=4&RFPath=51); 2015-2035: STATEC, data prepared for the NEAM baseline scenario (under development). No data prior to 2000 reported: other source = break in time serie.
⑤ 2012 = base year for the projected estimates. Hypotheses as from "Komobile/FVT, BAU-Prognose zum Kraftstoffexport und der zugehörigen Emissionen von klimarelevanten Gasen und Luftschadstoffen des Verkehrssektors in Luxemburg von 2015-2030 und Ausb
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⑧ 2012 = base year for the projected estimates. Hypotheses as from "STATEC, Projections socio-économiques 2010 – 2060; Bulletin du STATEC n°5 – 2010".
⑨ 2012 = base year for the projected estimates. Hypotheses as from "STATEC, Projection des ménages privés et des besoins en logements 2010-2030, Economie et Statistiques n°55 - 2011". 1990 = 1991 and 2000 = 2001 data.
⑩ 2014 = base year for the projected estimates. 1990-2035: STATEC, data prepared for the EU Working Group on Ageing Population and Sustainability - 2015 Synthesis table.
⑪ 2014 = base year for the projected estimates. 1990-2035: STATEC, data prepared for the EU Working Group on Ageing Population and Sustainability - 2015 Synthesis table.
⑫ 2010 = base year for the projected estimates. 2000-2014: STATEC, Table A4303, updated 19.11.2015 (http://www.statistiques.public.lu/stat/TableViewer/tableViewHTML.aspx?ReportId=6152&IF_Language=fra&MainTheme=1&FldrName=4&RFPath=51). 2015-2035: Hypotheses as from PRIMES 2013 baseline.
⑬ 2010 = base year for the projected estimates. 2000-2014: Service d'Economie Rurale (SER), activity data prepared for the GHG Inventory, 2016 submission. 2015-2035: Hypotheses as from GAINS 2015 baseline (draft version).
⑭ 2010 = base year for the projected estimates. 2000-2014: Service d'Economie Rurale (SER), activity data prepared for the GHG Inventory, 2016 submission. 2015-2035: Hypotheses as from GAINS 2015 baseline (draft version).
⑮ 2010 = base year for the projected estimates. 2000-2014: Service d'Economie Rurale (SER), activity data prepared for the GHG Inventory, 2016 submission. 2015-2035: Hypotheses as from GAINS 2015 baseline (draft version).
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⑱ 2010 = base year for the projected estimates. 2000-2014: Service d'Economie Rurale (SER), activity data prepared for the GHG Inventory, 2016 submission. 2015-2035: Hypotheses as from GAINS 2015 baseline (draft version).
⑲ 2010 = base year for the projected estimates. Hypotheses as from GAINS 2015 baseline (draft version), which covers waste generated by households only.

Add a footnote

Table 6

GHG emissions projections	Unit
Sector [d, e]	
Energy	kt CO_2 eq
Transport	kt CO_2 eq
Industry/industrial processes	kt CO_2 eq
Agriculture	kt CO_2 eq
Forestry/LULUCF (1)	kt CO_2 eq
Waste management/waste	kt CO_2 eq
Add a Sector	
Other (specify)	kt CO_2 eq
Gas	
CO_2 emissions including net CO_2 from LULUCF (3)	kt CO_2 eq
CO_2 emissions excluding net CO_2 from LULUCF (4)	kt CO_2 eq
CH_4 emissions including CH_4 from LULUCF (5)	kt CO_2 eq
CH_4 emissions excluding CH_4 from LULUCF (6)	kt CO_2 eq
N_2O emissions including N_2O from LULUCF (7)	kt CO_2 eq
N_2O emissions excluding N_2O from LULUCF (8)	kt CO_2 eq
HFCs (9)	kt CO_2 eq
PFCs	kt CO_2 eq
SF_6 (10)	kt CO_2 eq
Add a Gas	
Other (specify) (2)	kt CO_2 eq
Total with LULUCF [f] (11)	kt CO_2 eq
Total without LULUCF	kt CO_2 eq

(1) No LULUCF projections for Luxembourg.
(2) No historical NF3 emissions in Luxembourg, hence no projections for that gas.
(3) No LULUCF projections for Luxembourg.
(4) Projected values include CH4 & N2O.
(5) No LULUCF projections for Luxembourg.
(6) Projections made for CO2, CH4 & N2O together. Included under CO2 projections.
(7) No LULUCF projections for Luxembourg.
(8) Projections made for CO2, CH4 & N2O together. Included under CO2 projections.
(9) Projected values include SF6 (no PFC & no NF3 emissions for Luxembourg).
(10) Projections made for HFC & SF6 together. Included under HFC projections.
(11) No LULUCF projections for Luxembourg.
Add a footnote

Table 7a

① The amounts reported in 2013 and in 2014 are the total amount committed for this channel. Consequently, these amounts should not be added together.
② The amounts reported in 2013 and in 2014 are the total amount committed for this channel. Consequently, these amounts should not be added together.
③ This amount was committed in 2014, but it has effectively been disbursed in 2015.
④ The amounts reported in 2013 and in 2014 are the total amount committed for this channel. Consequently, these amounts should not be added together.
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Add a footnote

Footnote ① relates to the 2013 entry "International Union for Conservation of Nature - Small Islands Developing States (IUCN - SIDS)";
Footnote ② relates to the 2013 entry "UN collaborative initiative on Reducing Emissions from Deforestation and forest Degradation in developing countries (UN-REDD)";
Footnote ③ relates to the 2014 entry "5. Green Climate Fund";
Footnote ④ relates to the 2014 entry "International Union for Conservation of Nature - Small Islands Developing States (IUCN - SIDS)";
Footnote ⑤ relates to the 2014 entry "UN collaborative initiative on Reducing Emissions from Deforestation and forest Degradation in developing countries (UN-REDD)";