

# Annex 2 to the NC8



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



# Introduction

1. This report presents the Fifth Biennial Report (BR5) from Luxembourg, under Decision 2/CP.17 of the United Nations Framework Convention on Climate Change (UNFCCC). It describes the information defined in the UNFCCC biennial reporting guidelines for developed country Parties.<sup>1</sup> Tabular information, as defined in the Common Tabular Format (CTF), is submitted using the electronic reporting facility provided by the UNFCCC Secretariat.<sup>2</sup>
2. Luxembourg's BR5 is being presented as an Annex to its 8<sup>th</sup> National Communication (NC8). As the BR5 and NC8 are complementary documents, this report primarily refers to relevant sections within NC8.

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<sup>1</sup> Annex I to Decision 2/CP.17.

<sup>2</sup> UNFCCC Decision 19/CP.18.

# Chapter I

## Information on Greenhouse Gas Emissions and Trends

### ***I.1 GHG EMISSIONS IN 2020 AND DEVELOPMENTS SINCE 1990***

→ *NC8: Section III.1, p. III-1 to III-38*

→ *CTF Tables 1*

### ***I.2 NATIONAL INVENTORY ARRANGEMENTS***

→ *NC8: Section III.2, p. III-39 to III-70*

# Chapter II

## Economy-wide Emission Reduction Target

### II.1 INTRODUCTION

1. Paragraph 4 of the UNFCCC biennial reporting guidelines for developed countries Parties (BR GL) [UNFCCC (2011)] requests that each Annex I Party shall describe its quantified economy-wide emission reduction target, including any conditions or assumptions that are relevant to the attainment of that target. The information that shall be included – paragraph 5 of the BR GL – is summarized in CTF Table 2. *Section II.2* provides this information. Annex 1 summarizes changes between the BR5 and the BR4 and Annex 2 indicates whether recommendations and encouragements from the latest review – TRR.4 [UNFCCC (2021)] – have been implemented or not.

### II.2 LUXEMBOURG'S QUANTIFIED ECONOMY-WIDE EMISSION REDUCTION TARGET

2. The EU has collectively met its UNFCCC target and implemented it domestically through EU legislation in the “2020 Climate and Energy package” that is described in *NC8, Section IV.1.2*. Therefore, Luxembourg's 2020 target under the UNFCCC fits into this legal and political framework. In the package, the EU introduced a clear approach to achieving the 20% reduction in total GHG emissions compared to 1990 levels by sharing the effort between the sectors covered by the EU Emissions Trading Scheme (EU ETS) and the sectors covered by the Effort Sharing Decision (ESD). Binding national targets have been set for Member States under the ESD. Meeting the EU's internal targets under the 2020 climate and energy package, including national targets under the ESD, is not subject to the UNFCCC assessment of the EU's collective commitment under the Convention.
3. For a longer-term vision, a similar architecture has been put in place at the European level to cover the period from 2021 to 2030, the EU “2030 Climate and Energy framework”, Long-term Strategy and Climate Law, which are presented in *NC8, Sections IV.1.3 & IV.1.4*.

4. As:

- the detailed information is provided in *NC8, Section IV.1*, including an overview table for both commitment periods up to 2020 and up to 2030 [*→ NC8, Tables IV.1-1*];
- CTF Table comes with numerous footnotes;

this chapter only reproduces CTF Table 2 and its footnotes [*→ Table II.2-1*].

**TABLE II.2-1 – DESCRIPTION OF THE ECONOMY-WIDE EMISSION REDUCTION TARGET FOR LUXEMBOURG**

Emission reduction target: base year and target			
Base year/ base period <sup>①</sup>		1990	
Emission reductions target (% of base year/base period) <sup>②</sup>		20.00	
Emission reductions target (% of 1990) <sup>b ③</sup>		20.00	
Period for reaching target <sup>④</sup>		BY-2020	
Gases and sectors covered. GWP values.			
Gases covered	Covered	Base Year	GWP <sup>c</sup> reference source
CO <sub>2</sub> <sup>⑤</sup>	Yes	1990	4th AR
CH <sub>4</sub> <sup>⑥</sup>	Yes	1990	4th AR
N <sub>2</sub> O <sup>⑦</sup>	Yes	1990	4th AR
HFCs <sup>⑧</sup>	Yes	1990	4th AR
PFCs <sup>⑨</sup>	No	NA	4th AR
SF <sub>6</sub> <sup>⑩</sup>	Yes	1990	4th AR
NF <sub>3</sub> <sup>⑪</sup>	No	NA	4th AR
Other gases (specify) <sup>d</sup>			
Sectors covered <sup>e</sup>			Covered
Energy			Yes
Transport <sup>f</sup>			Yes
Industrial processes <sup>g</sup>			Yes
Agriculture			Yes
LULUCF			No
Waste			Yes
Other sectors (specify) <sup>h</sup>			
Aviation in the scope of the EU ETS <sup>⑫</sup>			Yes
Role of LULUCF sector			
LULUCF in base year level and target <sup>⑬</sup>			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 <sub>2</sub> eq) <sup>⑭</sup>			NA
CERs <sup>⑮</sup>			NA
ERUs <sup>⑯</sup>			NA
AAUs <sup>i</sup> <sup>⑰</sup>			NA
Carry-over units <sup>j</sup> <sup>⑱</sup>			NA
Other mechanism units under the Convention (specify) <sup>k</sup> <sup>⑲</sup>			
No records to display.			
Possible scale of contributions of other market-based mechanisms (estimated kt CO <sub>2</sub> eq) <sup>⑳</sup>			
No records to display.			
Any other information			
Any other information: <sup>l</sup> <sup>㉑</sup>		See footnote 21.	

<p>① Legally binding trajectories for the period 2013-2020 were set in both the EU Emissions Trading Scheme (EU ETS) Directive (Directive 2003/87/EC and its amendments) and the Effort Sharing Decision (Decision 406/2009/EC). These legally binding trajectories not only led to a 20% reduction in GHG emissions by 2020 compared to 1990, but also defined the EU's annual target path for reducing EU GHG emissions from 2013 to 2020. The Effort Sharing Decision set annual national emission targets for 2013-2020 for all Member States for sectors not covered by the EU ETS, expressed as a percentage change from 2005 levels. In March 2013, the Commission formally adopted the annual national targets for each Member State for the whole period. Taken together, the national targets would lead to a reduction in total EU emissions from covered sectors of around 10% by 2020 compared to 2005 levels. The emission reduction to be achieved by the sectors covered by the EU ETS would be 21% below 2005 emission levels.</p>
<p>② See first footnote.</p>
<p>③ See first footnote.</p>
<p>④ See first footnote.</p>
<p>⑤ As adopted in the UNFCCC reporting guidelines for national GHG inventories of Annex I Parties and in the EU Monitoring Mechanism Regulation.</p>
<p>⑥ As adopted in the UNFCCC reporting guidelines for national GHG inventories of Annex I Parties and in the EU Monitoring Mechanism Regulation.</p>
<p>⑦ As adopted in the UNFCCC reporting guidelines for national GHG inventories of Annex I Parties and in the EU Monitoring Mechanism Regulation.</p>
<p>⑧ As adopted in the UNFCCC reporting guidelines for national GHG inventories of Annex I Parties and in the EU Monitoring Mechanism Regulation.</p>
<p>⑨ PFC emissions are not reported in the GHG inventory.</p>
<p>⑩ As adopted in the UNFCCC reporting guidelines for national GHG inventories of Annex I Parties and in the EU Monitoring Mechanism Regulation.</p>
<p>⑪ NF3 emissions are not reported in the GHG inventory. Furthermore, NF3 is excluded from the target for the EU and its Member States.</p>
<p>⑫ In principle, the EU ETS should cover CO2 emissions from all flights falling within the aviation activities listed in Annex I to the EU ETS Directive departing from an aerodrome situated in the territory of a Member State, Norway, Iceland and Liechtenstein and closely associated territories and those arriving at such an aerodrome from a third country, with the exception of small commercial emitters. Since 2012, flights to and from aerodromes in other countries have not been included in the EU ETS. This exclusion was made to facilitate the negotiation of a global agreement on aviation emissions in the International Civil Aviation Organisation (ICAO) forum. The EU has decided on a reduced scope for the period 2013-2016 (Regulation (EU) No 421/2014 of the European Parliament and of the Council of 16 April 2014).</p>
<p>⑬ The EU pledge did not include emissions/removals from Land Use, Land-Use Change and Forestry to deliver its firm independent commitment to reduce GHG emissions by at least 20% by 2020 compared to 1990. However, the EU LULUCF sector has been a net sink over this period.</p>
<p>⑭ The "2020 Climate and Energy Package" allowed Certified Emission Reductions (CERs) and Emission Reduction Units (ERUs) to be used for compliance purposes, subject to a number of restrictions on the origin and type of project and up to a certain limit. In addition, the legislation provided for the possible recognition of units from new market mechanisms, which did not materialise.</p> <p>In fact, market-based mechanisms were not applicable to the EU 2020 target, i.e. Tables 2(e)I and 2(e)II do not apply (notation key NA). As a result, the 20% reduction target compared to 1990 for the period 2013-2020 under the Convention, which applies to the EU as a whole, has been achieved domestically through the implementation of the ETS Directive and the ESD Decision in the non-ETS sectors.</p>
<p>⑮ The use of these units under the ETS Directive and the Effort Sharing Decision was subject to certain limits, which do not distinguish between CERs and ERUs but include additional criteria for the use of CERs.</p>
<p>⑯ The use of these units under the ETS Directive and the Effort Sharing Decision was subject to certain limits, which do not distinguish between CERs and ERUs but include additional criteria for the use of CERs.</p>
<p>⑰ The use of AAUs from non-EU Parties was not allowed for EU Member States (see footnote 14).</p>
<p>⑱ At CMP.9, the EU made a declaration at the time of the adoption of the Doha Amendment to the Kyoto Protocol that the European Union's legislation on the "2020 Climate and Energy Package" for the implementation of its emission reduction targets for the period 2013-2020 would not allow the use of surplus AAUs carried over from the first commitment period to meet these targets.</p>
<p>⑲ There were general provisions in the EU legislation allowing the use of such units, provided that the necessary legal arrangements for the creation of such units had been put in place in the EU, which ultimately was not the case.</p>
<p>⑳ None. Luxembourg did not recognise the use of market-based mechanisms other than those under the Convention to achieve quantified economy-wide emission reduction targets.</p>
<p>㉑ See also EU NC8/BR5 - <a href="https://unfccc.int/documents/624694">https://unfccc.int/documents/624694</a> - Section "[BR5] 3 QUANTIFIED ECONOMY-WIDE EMISSION REDUCTION TARGET", pages 186-196.</p>

## ***Annex 1 – Changes in reporting compared to the latest submission***

The table below summarizes the main changes compared to the previous submission – BR4 – for the sections of this chapter, as well as for CTF related Tables.

Section or CTF Table in BR4	Section in BR5 and revisions
II.1	II.1- no changes.
II.2	II.1- no changes.
CTF Table 2	Corrections for gas and sectors covered. Some revisions in footnotes.

## ***Annex 2 – Implementation of recommendations and encouragements from the latest review***

The table below indicates if the recommendation from the latest review – TRR.4, Table 3 [UNFCCC (2021)] – has been included or not in this submission, and if not, why.

Reporting requirement	Issue type	Assessment	Description	Included Y/N
para. 5 [BR GL]	Transparency	Recommendation	The ERT recommends that Luxembourg provide consistent information as to which sectors are included in the target and complete all cells in the CTF tables.	Implemented: see CTF Table 2.

# Chapter III

## Progress in Achievement of Quantified Economy-wide Emission Reduction Targets and Relevant Information

### III.1 INTRODUCTION

1. The EU has significantly exceeded its reduction target under the Convention, which means that its Member States and the UK have also met their emission reduction commitments. As reported in the EU's 2022 GHG inventory submission to the UNFCCC, total GHG emissions, excluding LULUCF but including international aviation, decreased by 34% in the EU-27 + UK compared to the base year 1990, or 1.94 billion tonnes of CO<sub>2</sub>e.
2. Because of the achievement of the EU target as a whole, Luxembourg is also considered to have achieved its target, regardless of whether it has achieved its own target under the ESD, which it did as shown in *Figure IV.1.1* and *Section V.3.12* of the NC8.

### III.2 POLICIES AND MEASURES AIMING AT REDUCING GHG EMISSIONS

→ *NC8: Section IV.4, p. IV-29 to IV-154*

→ *CTF Table 3*

### III.3 REPORTING ON PROGRESS – ESTIMATE OF ANTICIPATED EMISSION MITIGATION FROM LULUCF ACTIVITIES

3. Luxembourg has chosen to account for the activities under Article 3.3 of the Kyoto Protocol but does not plan to account for net emissions and removals from activities under Article 3.4 of the same Protocol.



4. As a Kyoto Protocol Party, Luxembourg filled in Table 4(a)II, but not Table 4(a)I.

→ *CTF Tables 4 and 4(a)*

#### ***III.4 REPORTING ON PROGRESS – ESTIMATE OF ANTICIPATED EMISSION MITIGATION FROM MARKET-BASED MECHANISMS***

→ *NC8: Section V.6.1, p. V-54 & V-55*

→ *CTF Tables 4 and 4(b)*

# Chapter IV

## GHG Emission Projections

Table 5 - the main parameters and variables that were used in the projection exercise are reported.

→ *NC8: Section V.2, p. V-3 to V-22*

→ *CTF Table 5*

Tables 6 - Luxembourg has not performed a “without measures” scenario projection exercise yet, i.e. projections are available only for the “with existing measures” and the “with additional measures” scenarios.

→ *NC7: Section V.3, p. V-23 to V-51*

→ *CTF Tables 6(a) and 6(c)*

# Chapter V

## Provisions of Financial, Technological and Capacity Building Support to Developing Country Parties

### **V.1 FINANCE**

→ *NC8: Sections VII.1 to VII.3, p. VII-2 to VII-24*

→ *CTF Tables 7, 7(a) and 7(b)*

### **V.2 TECHNOLOGY DEVELOPMENT AND TRANSFER**

→ *NC7: Section VII.4, p. VII-24 to VII-33*

→ *CTF Tables 8 and 9*



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Decision No 406/2009/EC of the European Parliament and of the Council of 23 April 2009 on the effort of Member States to reduce their greenhouse gas emissions to meet the Community's greenhouse gas emission reduction commitments up to 2020.

→ <http://data.europa.eu/eli/dec/2009/406/oj>

Regulation (EU) 2018/842 of the European Parliament and of the Council of 30 May 2018 on binding annual greenhouse gas emission reductions by Member States from 2021 to 2030 contributing to climate action to meet commitments under the Paris Agreement and amending Regulation (EU) No 525/2013.

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