



Addendum to the
Eighth National Communication of
Luxembourg under the United
Nations Framework Convention on
Climate Change

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

Resubmission

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et de la Biodiversité

Addendum to the

**Eighth National Communication of Luxembourg under the
United Nations Framework Convention on Climate Change**

**Annex: Fifth Biennial Report of Luxembourg under the United Nations
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This addendum completes or revises the NC8 report and its annex (BR5) submitted on 24 December 2023. As with the NC8 report and its annex (BR5), this addendum and the accompanying revised CTF tables reflect the situation in Luxembourg on 1 November 2023.

During the preparation of NC8/BR5, the Ministry of Environment, Climate and Sustainable Development (MECDD) was renamed the Ministry of Environment, Climate and Biodiversity (MECB). This renaming is the result of a new government taking office on 17 November 2023, following the general elections of 8 October 2023.

I. Introduction

This document contains an amendment to Luxembourg's eighth national communication – NC8 (with the fifth biennial report in annex – BR5), in response to feedback received from the Expert Review Team (ERT) during the In-Country Review in Luxembourg from 10-15 March 2024. Luxembourg thanks the ERT for its valuable insights and comments.

II. National Circumstances

There is no amendment to chapter II of Luxembourg's eighth national communication (with the fifth biennial report in annex).

III. GHG inventory information including national system and the national registry

To enhance the transparency of this Chapter, a typographical error is corrected by replacing “-32.5%” with “-31.5%” in paragraph III-12.

IV. Policies and measures

There is no amendment to chapter IV of Luxembourg's eighth national communication (with the fifth biennial report in annex).

V. Projections and total effect of policies and measures

To enhance the transparency of this Chapter, the phrase “Chapter V discusses GHG projections up to 2040 for two scenarios” in the first sentence of paragraph V-1 is replaced with “Chapter V discusses GHG projections up to 2050 for two scenarios”.

To enhance the transparency of this Chapter, considering especially paragraph 26 of the NC guidelines, the last sentence of paragraph V-100 is replaced with the following text:

“Figure V.3-13 above shows that Luxembourg's projected ESR emissions under the WEM scenario (i.e. the BAU scenario with PaMs adopted and implemented before 31 December 2021 – gold dotted line) would be mostly above this linear trajectory (purple dots), but below it under the WAM scenario (i.e. the WAM scenario with all draft NECP update PaMs taken into account – brown dotted line). “

To enhance the completeness of this Chapter, considering especially paragraph 36 of the NC guidelines, paragraph V-85 is replaced with the following text:

“For the WAM scenario, the draft NECP update considers several measures and developments, such as (i) a reduction in the number of cattle and pigs; (ii) feed additives to reduce enteric methane

emissions in dairy cows; (iii) targeted nutritional advice on nitrogen in feed to reduce nitrogen excretion in pigs (Nex); (iv) climate-friendly housing systems; (v) promoting the use of manure in biogas plants; (vi) the introduction of an obligation to cover manure/digestate tanks; (vii) the ban on spreading manure/digestate using a broadcast from 2024 and more environmentally friendly application of manure/digestate; (viii) organic farming etc. These measures are included in the WAM scenario but could not be estimated with sufficient certainty beyond 2030., which explains the flatter trend after 2030 for the WAM projections in Figure V.3-9.”

To enhance the transparency of this Chapter, considering especially paragraph 10 of the BR guidelines, a footnote was added to CTF Table 4(a)II that the LULUCF sector is excluded from Luxembourg’s target for 2020.

VI. Vulnerability assessment, climate change impacts and adaptation measures

To enhance the completeness of this Chapter, considering especially paragraph 46 of the NC guidelines, a new section entitled “Relevant methodologies and guidance used for assessing climate change impacts, vulnerability and adaptation measures” is added before section VI.1 (renumbering the following sections accordingly):

VI.1 Relevant methodologies and guidance used for assessing climate change impacts, vulnerability and adaptation measures

Information on the effects of climate change is mainly based on data and information from various Luxembourg Institute of Science and Technology (LIST) research projects, in particular the CHAPEL project, but also from previous LIST projects:

- Goergen, K., J. J. Beersma, L. Hoffmann, and J. Junk (2013), ENSEMBLES-based assessment of regional climate effects in Luxembourg and their impact on vegetation. Climatic Change
- Matzarakis, A., J. Rammelberg, and J. Junk (2013), Assessment of thermal bioclimate and tourism climate potential for central Europe-the example of Luxembourg. Theoretical and applied climatology
- Eickermann, M., J. Junk, and C. Rapisarda (2023), Climate Change and Insects

Methodologies are described in these projects and papers.

VII. Provision of financial, technological and capacity-building support to developing country parties

To enhance the transparency of this Chapter, considering especially paragraphs 49 and 50 of the NC guidelines and paragraphs 14 and 15 of the BR guidelines, two new sections are added.

“National approach for tracking the provision of ICF-related financial, technological and capacity-building support” is added between Sections VII.2.3 and VII.2.4 (renumbering the following sections accordingly).

“National approach for tracking the provision of ODA-related financial, technological and capacity-building support” is added between Sections VII.1.1 and VII.1.2 (renumbering the following sections accordingly).

In addition, paragraph VII-19 is deleted and paragraphs 30 and 31 are included in the beginning of the new section VII.2.4.

VII.2.4 National approach for tracking the provision of ICF-related financial, technological and capacity-building support

The Luxembourg 2021 International Climate Finance Strategy document lists the eligibility criteria (pp. 21-28) and selection criteria (pp. 27-28) for the allocation of Luxembourg's ICF to activities. The first and most important eligibility criterion is the clear and direct climate change focus of the supported activity.

The Ministry of the Environment, Climate and Biodiversity (MECB) uses two leading and mutually compatible methodologies to define and categorise the scope of climate finance:

- a) The Climate Components Methodology used by Multilateral Development Banks (MDBs) and International Development Finance Corporations (IDFCs), based on the MDB-IDFC Common Principles for Climate Finance Tracking.^{1,2}
- b) OECD Rio Marker methodology.

Luxembourg will also consider those activities eligible that apply the “EU Taxonomy of Sustainable Activities”³ for climate change mitigation and adaptation”.

In practice, each ICF-supported activity is reviewed internally during the application process. This review includes an assessment of whether the activity has a clear and direct focus on climate change (up to workplan level where information is available) using the methodologies above. As part of this

¹ https://www.eib.org/attachments/documents/mdb_idfc_mitigation_common_principles_en.pdf

² <https://thedocs.worldbank.org/en/doc/20cd787e947dbf44598741469538a4ab-0020012022/original/20220242-mdb-joint-methodology-climate-change-adaptation-finance-en.pdf>

³ https://finance.ec.europa.eu/sustainable-finance/tools-and-standards/eu-taxonomy-sustainable-activities_en

assessment, a general judgement will be made as to whether, for a supported activity, the climate objective is a main or principal element of the activity (in the sense of the OECD Rio Marker Climate 2) and whether there is a clear and direct link between the activity and the climate objective.

In exceptional cases, the ICF can be used to finance activities where climate impacts are an important element (OECD Rio Marker Climate 1), but not the main element of the activity. However, this requires that the activity in question brings significant climate and sustainable development benefits, has a transformative effect on the fight against climate change and would have little chance of being developed without funding from Luxembourg (additionality). The MECB does not classify the supported activities according to the OECD DAC Rio climate markers (0, 1, 2), but applies its definitions and their meaning in the review process of ICF applications.

Regarding the Climate Components Methodology: During the review process, the MECB assesses whether all components of the activities meet the clear and direct climate impact check. If such an impact check cannot be established for a specific activity element, discussions are held with the applicant on whether or not to include a specific component in the ICF support. As stated in the ICF Strategy 2021 (p. 22), the ICF can sometimes also be used to finance those elements of an activity that go beyond a direct climate benefit (as long as they are an integral part of the programme). The Climate Components Methodology is usually applied to development finance by multilateral development banks. The MECB does not have the capacity to carry out a detailed climate component analysis for each supported activity. For climate adaptation projects, the ICF covers the costs of the proposed activities without attempting to capture only the incremental costs of adaptation activities through an incremental cost analysis.

The internal review process also includes an analysis of the key selection criteria. The first and most important selection criterion is strong climate impact. During the internal review process, the MECB assesses whether there is sufficient, good or very good evidence of strong climate impact in the proposed activity. This assessment also looks at the impact log frame based on the theory of change of the reviewed activities and the proposed Key Performance Indicators (KPIs) leading to the climate impact. A KPI monitoring plan is required. In particular, the MECB monitors the output and outcome KPIs of an ICF-supported activity. Often, the MECB requires a calculation of tCO₂e reduced or sequestered for activities related to climate change mitigation, with an indication of the calculation methodology used. Not all supported activities can provide this information.

VII.1.2 National approach for tracking the provision of ODA-related financial, technological and capacity-building support

MAEE's tracking system⁴ integrates specific indicators that are directly aligned with the five environmental and climate markers identified by the OECD/DAC, focusing on:

- Environmental protection and management (Aid to Environment marker)
- Mitigation of climate change
- Adaptation to climate change
- Biodiversity
- Combating desertification

Specific Indicators: For each thematic area - gender, environment and climate change - the tracking system assigns projects a DAC marker value of 0, 1 or 2, representing "not targeted", "significant objective" and "main objective", respectively. These are underpinned by detailed criteria (established during formulation) for justifying the scores based on the projects' objectives and documentation.

Delivery Mechanisms: The DAC markers are applied once the project or programme has been validated, i.e. the project document has been approved by the MAEE. However, these markers are considered at the identification stage of the project, in order to integrate environmental, climate or gender considerations from the outset.

Allocation Channels: The gender and Rio markers guide decision-making on the allocation of funds, ensuring that financial resources are directed to projects that have been formulated or adapted to address relevant climate and environmental concerns. For example, a project that contributes to sustainable forest management may qualify for multiple Rio markers that address biodiversity, carbon sequestration, climate risk reduction and desertification control.

Practical examples:

- Projects that secure land rights to avoid land-use changes that could increase GHG emissions have received a DAC mitigation marker (value 1).
- Initiatives that increase the resilience of rural communities and ecosystems to climate change have received an adaptation marker (value 1 or 2).
- Gender-specific markers are applied to projects that, for example, improve girls' access to education or promote gender equality in health services.

In summary, the specific indicators, delivery mechanisms and allocation channels within the tracking system are well aligned with the DAC marker system, ensuring that ODA support to non-Annex I countries is accurately recorded, monitored and reported, in line with Luxembourg's

⁴ <https://cooperation.gouvernement.lu/fr/publications/brochure-livre/minist-affaires-etrangees-europeennes/dir-cooperation-action-humanitaire/strategies-et-orientation/2023/marquage-cad-ocde.html>

commitment to transparency and accountability within the international development cooperation framework.

To enhance the transparency of this Chapter, considering especially paragraph 51 of the NC guidelines and paragraph 16 of the BR guidelines, a new section entitled “Effectively addressing the needs of non-Annex I Parties” is added after the new section VII.2.4 (“National approach for tracking the provision of financial, technological and capacity-building support”, renumbering the following sections accordingly):

VII.2.5 Effectively addressing the needs of non-Annex I Parties

The alignment of an ICF-supported activity with the host country's climate change strategies and NDCs is an important eligibility criterion and part of the MECB's internal review process. As explained in the ICF Strategy 2021 document (p. 24), this includes an analysis of the host country's NDC, National Adaptation Plans and other national policies with a direct impact on climate change, to see if the proposed activities fit into the host country's national context.

While alignment with host country priorities is essential, this requirement is not restrictive in the sense that only those elements explicitly mentioned in an NDC will be supported, and only at the level of ambition reflected therein. On the contrary, measures that seek to realise an additional premium in or on mitigation and/or adaptation benefits, and that generally reflect a higher level of ambition, are encouraged under the Luxembourg ICF Strategy, as long as they fit into a country's broader strategic framework and do not conflict with specific policies and country choices. In practice, applicants for ICF support will need to provide evidence of the positive strategic (country-led) framework, including - where appropriate - relevant letters of support from government agencies.

In line with these additions, the Table in Annex 2 of Section VII is amended to indicated that the two recommendations related to paragraphs 14 and 16 of the BR guidelines from the latest reviews (IDR.7, TRR.4) were implemented.

To enhance the transparency of this Chapter, considering especially paragraph 54 of the NC guidelines, a new section entitled “Assistance to developing country Parties that are particularly vulnerable to climate change (through ICF funding)” is added after the new section VII.2.5 (renumbering the following sections accordingly):

VII.2.6 Assistance to developing country Parties that are particularly vulnerable to climate change (through ICF funding)

The MECB considers the local vulnerability context for ICF activities requesting climate adaptation funding. The MECB asks the key questions in the review process, following the "three-step

approach" as applied by the OECD-DAC Rio Markers and the MDB-IDFC Common Principles for Climate Finance Tracking, namely:

- (a) setting out the climate vulnerability context of the project using a sound evidence base; and
- (b) an explicit statement of intent to address climate vulnerability as part of the project; and
- (c) articulate a clear and direct link between the climate vulnerability context and specific project activities.

The MECB does not classify recipient countries as most vulnerable to climate change, as we believe that vulnerability is specific to the local situation and context. However, based on the general assumption that SIDS and LDCs are often more vulnerable to climate change, the ICF Strategy states that it will give greater consideration to climate finance support for these countries. Least Developed Countries⁵ (LDCs) and low-income Small Island Developing States⁶ (SIDS), as well as low-income communities or regions highly exposed to climate risks in other developing countries. It should be added that the MECB does not issue specific calls for proposals for LDCs and SIDS.

Projects in Bangladesh, Benin, Burkina Faso, Burundi, Cabo Verde, Ethiopia, Fiji, Haiti, Laos, Nepal, Niger, Senegal, Togo, and Vanuatu in CTF Table 7b are examples of assistance to developing country Parties that are particularly vulnerable to climate change.

To enhance the transparency of this Chapter, considering especially paragraphs 52 and 53 of the NC guidelines and paragraphs 17 and 18 of the BR guidelines, CTF Tables 7, 7a, and 7b were amended with additional footnotes to provide separate total amounts for disbursed and committed financial contributions, as well as to express the amounts in USD, indicating the exchange rate used in a footnote.

To enhance the transparency of this Chapter, considering especially paragraph 55 of the NC guidelines and paragraph 19 of the BR guidelines, the following text is added at the end of the former section VII.2.4 Public - private interface:

VII.2.7 Public-private interface

As stated in the ICF Strategy 2021 (p.10, 34, 35), leveraging and mainstreaming climate and sustainable finance is one of the seven key funding themes of the ICF programme.

During the internal review process of ICF-supported activities, leveraging private sector funding is one of the seven selection criteria. In assessing this criterion, the MECB examines whether the mobilisation of private finance is a clear objective/goal of the ICF activity, the amount of private sector funding/finance expected to be mobilised, the strength of the causal link between the supported ICF activities and the leveraged private finance, and whether there is a direct or indirect

⁵ <https://www.un.org/ohrls/content/list-ldcs>

⁶ <https://www.un.org/ohrls/content/list-sids>

link. If mobilisation is a key objective of the proposed activity, the MECB requires that an appropriate mobilisation KPI be included in the log frame and be part of the monitoring and reporting process. For activities with a focus on leveraging private sector finance, the MECB will also look more closely at the additionality requirement of the support.

Some ICF funds are used indirectly, for example for activities that support the regulatory environment, capacity and policy development, or technical assistance, which may lead to the mobilisation of private finance. However, establishing the causal link in such cases is complex and often difficult to demonstrate.

Complete and consistent information is not always available from ICF-supported entities, information on the strength of the direct link as well as pro rata attribution information is often lacking, and we record what we can get from ICF recipients. Due to the incompleteness of monitoring data, there is a reluctance to officially report this data to the UNFCCC.

VIII. Research and systemic observation

Paragraph VIII-3 mentions “the Water Agency (MECDD-AGE) operates 20 meteorological stations”. To enhance the transparency of this Chapter, considering especially paragraph 62 of the NC guidelines, this text is replaced with “the Water Agency (MECDD-AGE) operates 20 meteorological stations (as well as 4 hydrometric stations that collect various meteorological parameters)”.

Paragraph VIII-35 mentions “4 meteorological stations (including rainfall)”. This text is replaced with “4 hydrometric stations that collect various meteorological parameters (including rainfall)”.

To enhance the completeness of this Chapter, considering especially paragraph 64 of the NC guidelines, a new section VIII.4 entitled “Funding of research and systematic observation” is added:

VIII.4 Funding of research and systematic observation

Funding in 2022 for Systematic Observation

- ASTA - Meteorology Department (Agrimeteo): 417 355 EUR
- ANA - Meteorology Department (MeteoLux): 2 110 092 EUR
- AGE - Hydrological Service: 390 000 EUR

Funding in 2022 for Research

- ANA - Meteorology Department (MeteoLux): 1 175 221 EUR
- FNR: commitment of 2.66 million EUR for 8 climate research projects.

Information on funding from the Ministry of Research and Higher Education is not available, as the Ministry does not fund research with this level of granularity.

IX. Education, training and public awareness

To enhance the completeness of this Chapter, considering especially paragraph 69 of the NC guidelines, a new section entitled “Monitoring, review and evaluation of the implementation of Article 6 of the Convention” is added after Section IX.4.3:

IX.4.4 Monitoring, review and evaluation of the implementation of Article 6 of the Convention

Article 6 of the Convention seeks to reduce the impacts of climate change by empowering society to be part of the solution, and thus touches on education, training, public awareness and civil society participation. Education and training enable society to contribute to local and global efforts to address climate change. Public awareness and information campaigns are important to provide the public with information on climate change and climate action in Luxembourg and abroad. Finally, stakeholder engagement, public consultation and civil society participation ensure that the public, civil society and stakeholders are consulted and able to provide feedback on climate change policies.

Luxembourg does not have a formal process for monitoring, reviewing and evaluating the implementation of Article 6 of the UNFCCC. However, the implementation of Article 6 is taken into account in Luxembourg's education, training, public awareness and civil society participation activities [*→ Section IX*], in Luxembourg's mitigation and adaptation policies and measures [*→ Section IV*] and in Luxembourg's provision of financial, technological and capacity-building support to developing country Parties [*→ Section VII*].

Annexes

There is no amendment to the Annexes of Luxembourg's eighth national communication (with the fifth biennial report in annex).