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# **Review of the 2018 Adjustment Application by Hungary**

Expert Review Team Report for the EMEP Steering Body

<b>Report title</b>	Review of the 2018 Adjustment Application by Hungary
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## Expert Review Team

<b>Role</b>	<b>Sectors</b>	<b>Name</b>	<b>Country</b>
Adjustment lead reviewer	All	Chris Dore Kristina Saarinen	UK FI
Primary expert reviewer	Agriculture 3B, 3D	J Webb	UK
Secondary expert reviewer	Agriculture 3B, 3D	Anais Durand	FR
Basic checks (Step 1 and 2)	N/A	Katarina Mareckova	CEIP

## Executive Summary

1. As mandated by Decision 2012/3 (ECE/EB.AIR/111/Add.1) of the Executive Body of the CLRTAP the nominated Expert Review Team undertook a detailed review of the adjustment application submitted by Hungary. The review was undertaken on behalf of the EMEP Steering Body and following the guidance published in the Annex to decision 2012/12 (ECE/EB.AIR/113/Add.1) and 2014/1 (ECE/EB.Air/130).

2. Each sector of the application was reviewed by two independent sectoral experts during May and June 2018. The findings were discussed at the meeting held from 18-21 June 2018 in Copenhagen at the EEA. The conclusions and recommendations for the EMEP SB are documented in this country report.

**Table ES1 Summary Information on the Submitted Application**

Reasons for adjustment application (Decision 2012/3, para 6)	New source
Pollutant for which adjustment is applied for	NM VOC
Source categories	Manure Management 3B, Cultivated crops 3De
Year(s) for which inventory adjustment is applied	2010 - 2016
Date of notification of adjustment to the Secretariat	15 February 2018
Date of submission of supporting documentation	15 March 2018

3. The Expert Review Team reviewed and evaluated the documents submitted by Hungary.

4. **NM VOC emissions from Manure Management (3B):** The ERT concludes that NM VOC emissions from Manure Management 3B are a “new” source, because no methodology for quantifying emissions was included in the EMEP/CORINAIR Emissions Inventory Guidebook (1999). The ERT therefore recommends that the EMEP Steering Body **accept** this adjustment application from Hungary.

5. **NM VOC emissions from Cultivated crops (NFR 3De):** The ERT concludes that NM VOC emissions from Cultivated Crops 3De are a “new” source, because no methodology for quantifying emissions was included in the EMEP/CORINAIR Emissions Inventory Guidebook (1999). The ERT therefore recommends that the EMEP Steering Body **accept** this adjustment application from Hungary.

6. The following table provides a summary of the inventory adjustments that are accepted by the ERT.

**Table ES2 Aggregated Sum of Accepted Inventory Adjustments (ktonnes)**

Pollutant	Unit	2010	2011	2012	2013	2014	2015	2016
NM VOC	kt	-25.206	-24.929	-25.026	-25.054	-25.627	-26.253	-26.455

**Table ES3 Impact of the Accepted Inventory Adjustments on National Emissions**

<b>Poll.</b>	<b>GP Emission Commitment (kt)</b>	<b>2010 Emission reported in 2018 (kt)</b>	<b>2010 Emission (adjusted) (kt)</b>	<b>Difference (%)</b>	<b>2016 Emission reported in 2018(kt)</b>	<b>2016 Emissions (adjusted) (kt)</b>	<b>Difference (%)</b>
<b>NMVOC</b>	137	144.31	119.08	-17.5%	140.66	114.12	-18.9%

7. The total national emissions of Hungary for NMVOCs will be below the Gothenburg Protocol ceilings from at least 2010 onwards, if the proposed adjustments are accepted.

## Content

<b>Executive Summary .....</b>	<b>3</b>
<b>1 Introduction and Context .....</b>	<b>6</b>
<b>2 Review of Submitted NMVOC Adjustments .....</b>	<b>8</b>
2.1 Assessment of Formal Criteria.....	8
2.2 Assessment of the Quantification of the Impact of the Revision.....	8
<b>3 Conclusions and Recommendations .....</b>	<b>9</b>
<b>4 Information Provided by the Party.....</b>	<b>9</b>
<b>5 References .....</b>	<b>10</b>

# 1 Introduction and Context

8. Parties may apply to adjust their inventory data or emission reduction commitments if they are (or expect to be) in non-compliance with their emission reduction targets<sup>1</sup>. However, in making an adjustment application, they must demonstrate that extraordinary circumstances have given rise to revisions to their emissions estimates. These extraordinary circumstances fall into three broad categories:

- a) Emission source categories are identified that were not accounted for at the time when the emission reduction commitments were set; or
- b) For a particular source, the emission factors used to estimate emissions for the year in which emissions reduction commitments are to be attained are significantly different to those used when the emission reduction commitments were set; or
- c) The methodologies used for determining emissions from specific source categories have undergone significant changes between the time when emission reduction commitments were set and the year they are to be attained.

9. Any Party submitting an application for an adjustment to its inventory is required to notify the Convention Secretariat through the Executive Secretary by 15 February at the latest. The supporting information detailed in Decision 2012/12 must be provided (either as part of the Informative Inventory Report, or in a separate report) by 15 March of the same year.

10. As mandated by Decision 2012/12 as amended by the Decision 2014/1 of the Executive Body of the CLRTAP, applications for adjustments that are submitted by Parties are subject to an expert review<sup>2</sup>. Technical coordination and support to the review is provided by EMEP's Centre on Emission Inventories and Projections (CEIP). The members of the review team are selected from the available review experts<sup>3</sup> that Parties have nominated to the CEIP roster of experts.

11. The Expert Review Team (ERT) undertakes a detailed technical review of the adjustment application in cooperation with the EMEP technical bodies and makes a recommendation to the EMEP Steering Body on the acceptance or rejection of the application. The EMEP Steering Body then takes its decision on any adjustment application based on the outcome of the technical assessment completed by ERT.

12. The flow diagram below outlines the different stages of the technical review. The following sections of this report are structured in the same way, and describe in detail the findings of the ERT at each of the decision gates in the process.

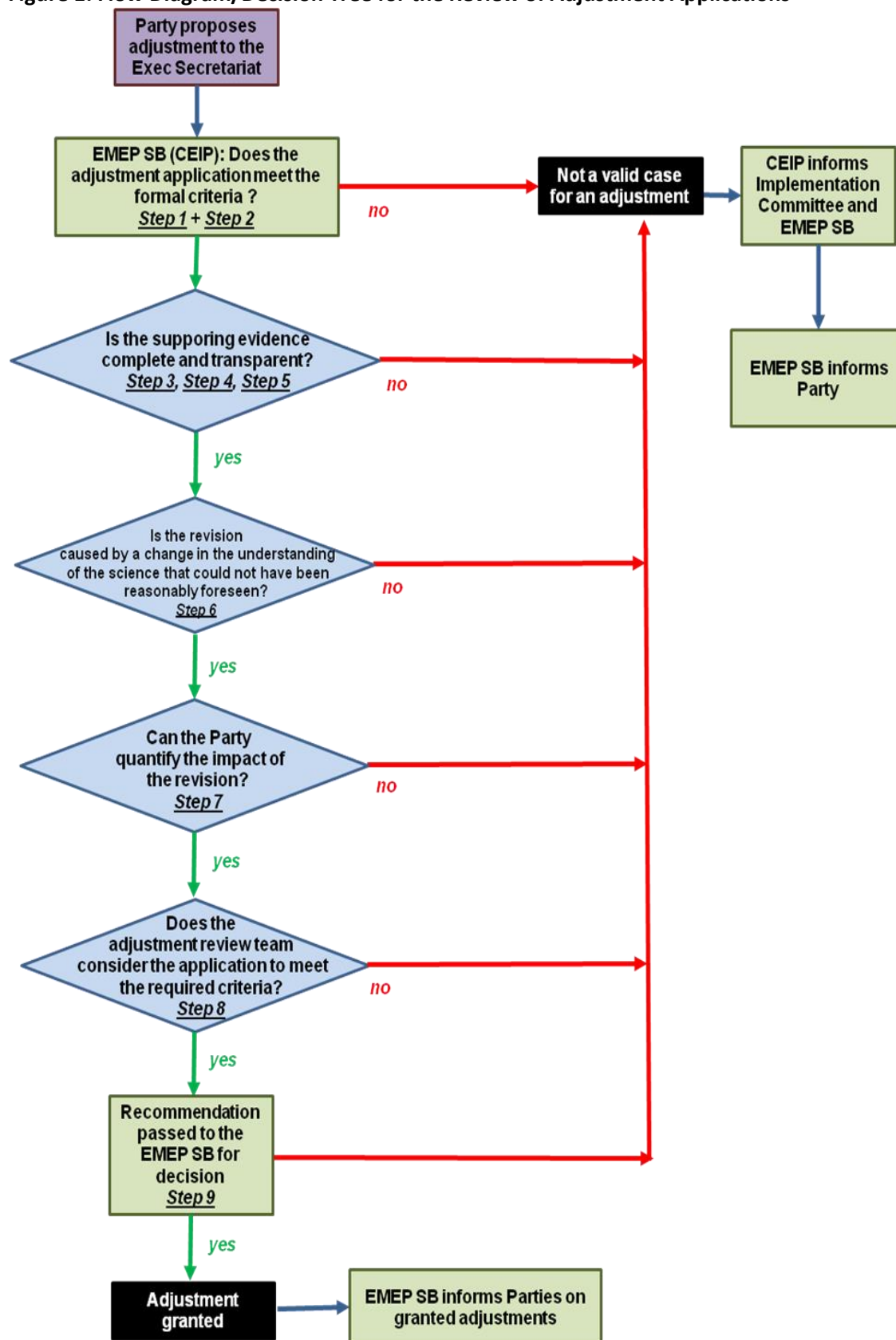
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<sup>1</sup> Throughout this report the term "emission reduction commitments" is used. However, the term "emission ceilings" is equally applicable.

<sup>2</sup> The EMEP Steering Body, in conjunction with other appropriate technical bodies under EMEP, shall review the supporting documentation and assess whether the adjustment is consistent with the circumstances described in paragraph 6 of EB decision 2012/3 and the further guidance in EB decision 2012/12 as amended by EB decision 2014/1 and Technical guidance document ECE/AB.Air/130 .

<sup>3</sup> [http://www.ceip.at/fileadmin/inhalte/emep/pdf/2018/0\\_Roster\\_2018v2.pdf](http://www.ceip.at/fileadmin/inhalte/emep/pdf/2018/0_Roster_2018v2.pdf)

Figure 1: Flow Diagram/Decision Tree for the Review of Adjustment Applications



## 2 Review of Submitted NMVOC Adjustments

### 2.1 Assessment of Formal Criteria

13. Hungary notified the secretariat through the ECE Executive Secretary of its intention to apply for a new adjustment on 15 February 2018 and thus before the legal deadline of 15 February. All supporting information requested by Decision 2012/12 was provided as part of the Informative Inventory Report before the legal deadline of 15 March of the same year that it is being submitted for review by the EMEP Steering Body (decision 2012/12, annex, para. 1). Additional documentation was provided during the review in response to requests from the ERT. The documentation provided by the Party is listed in an annex to this report. Section 4 lists the documentation provided by the Party.

18. Hungary submitted an application for emission adjustments to **NMVOCs** for years 2010-2016 for the following sectors:

- (a) **3B Manure Management**<sup>4</sup> and
- (b) **3De Cultivated Crops**

14. Hungary does not comply with its emission reduction commitments listed in Annex II of the Gothenburg Protocol (paragraph 1 of Decision 2012/3).

15. Hungary provided information on the impact of the adjustments to its emission inventory, and the extent to which it would reduce the current exceedance and possibly bring the Party into compliance with its emission reduction commitments for the years 2010 to 2016.

16. Hungary included information on when it will meet its emission ceiling for NMVOC in section 11.2 of the IIR (table 11.2).

### 2.2 Assessment of the Quantification of the Impact of the Revision

17. The adjustment application process requires that the Party submit a quantification of the impact of the adjustment for which an application has been submitted. Table 1 provides an overview of the NMVOC adjustment applications of Hungary in the Agriculture sector.

**Table 1: Hungary's NMVOC adjustment applications for Agriculture (kt)**

Ref No	Pollutant	NFR Code	2010	2011	2012	2013	2014	2015	2016
1	NMVOC	3B	-21.573	-21.359	-21.408	-21.441	-21.992	-22.674	-22.908
2	NMVOC	3De	-3.633	-3.570	-3.618	-3.613	-3.635	-3.579	-3.547

\* 3B represents NFR sectors 3B1a, 3B1b, 3B2, 3B3, 3B4a, 3B4d, 3B4e, 3B4f, 3B4gi-giv

<sup>4</sup> 3B represents NFR sectors 3B1a, 3B1b, 3B2, 3B3, 3B4a, 3B4d, 3B4e, 3B4f, 3B4gi-giv



### 3 Conclusions and Recommendations

18. The ERT has undertaken a full and thorough assessment of the application for an adjustment of the NMVOC emissions inventory that was submitted by Hungary for the following source sectors:

- a. Manure Management 3B (3B1a, 3B1b, 3B2, 3B3, 3B4a, 3B4d, 3B4e, 3B4f, 3B4gi-giii)
- b. Cultivated crops 3De

19. The review of the submitted application followed the guidance provided in the Annex to Decision 2012/12 of the Executive Body of the CLRTAP. The findings of the ERT are described in detail in Section 2 of this report.

20. Table 2 below provides a summary of the adjustment applications received from Hungary, and the subsequent recommendations made by the ERT to the EMEP SB.

**Table 2: Recommendations from the ERT to the EMEP SB**

Country	Sector	NFRs	Pollutant	Years	ERT Recommendation
Hungary	Manure Management	3B	NNVOC	2010- 2016	Accept
	Cultivated Crops	3De	NMVOC	2010 - 2016	Accept

### 4 Information Provided by the Party

21. Table 3 lists the information provided by the Party in its adjustment application. The information provided by Party can be downloaded from the CEIP website<sup>5</sup>.

**Table 3: Information Provided by the Party**

Filename	Short description of content
HU_NotificationTemplate_CLRTAP_EMEP_emission_inventory_status_report_2018.doc	MS Word document indicating sectors and pollutants proposed for adjustment
HU_Annex_II_to_ECE-EB.Air130_Adjustment_Application.xlsx	MS Excel file with detailed data underlying the proposed adjustment applications for NMVOC from Agriculture 3B and 3De
IIR_HU_2018march.pdf	IIR 2018, pdf-document; here especially: Chapter 11. Adjustments

22. The ERT did not ask the Party for further information.

<sup>5</sup> [http://www.ceip.at/adjustments\\_gp/](http://www.ceip.at/adjustments_gp/)

## 5 References

Decision 2012/3 (ECE/EB.AIR/111/Add.1): Adjustments under the Gothenburg Protocol to emission reduction commitments or to inventories for the purposes of comparing total national emissions with them

Decision 2012/12 (ECE/EB.AIR/113/Add.1): Guidance for adjustments under the 1999 Protocol to Abate Acidification, Eutrophication and Ground-level Ozone to emission reduction commitments or to inventories for the purposes of comparing total national emissions with them

Decision 2014/1 (ECE/EB.Air/127/Add.1) Improving the guidance for adjustments under the 1999 Protocol to Abate Acidification, Eutrophication and Ground-level Ozone to emission reduction commitments or to inventories for the purposes of comparing total national emissions with them

Data submitted by Parties applying for an adjustment:

[http://www.ceip.at/ms/ceip\\_home1/ceip\\_home/adjustments\\_gp/](http://www.ceip.at/ms/ceip_home1/ceip_home/adjustments_gp/)

EMEP/EEA Air Pollutant Emission Inventory Guidebook 2016

<http://www.eea.europa.eu/publications/emep-eea-guidebook-2016>

EMEP/CORINAIR Air Pollutant Emission Inventory Guidebook 1999, 2<sup>nd</sup> edition

<http://www.eea.europa.eu/publications/EMEPCORINAIR>

2014 Reporting Guidelines (ECE/EB.AIR/125 ) for Estimating and Reporting Emission Data under CLRTAP [http://www.ceip.at/ms/ceip\\_home1/ceip\\_home/reporting\\_instructions/](http://www.ceip.at/ms/ceip_home1/ceip_home/reporting_instructions/)

ECE/EB.AIR/130: Technical Guidance for Parties Making Adjustment Applications and for the Expert Review of Adjustment Applications, 14 April 2015

The 1999 Gothenburg Protocol to Abate Acidification, Eutrophication and Ground-level Ozone  
[http://www.unece.org/env/lrtap/multi\\_h1.html](http://www.unece.org/env/lrtap/multi_h1.html)