



# Economic and Social Council

Distr.: General  
2 October 2020

Original: English

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## Economic Commission for Europe

### Executive Body for the Convention on Long-range Transboundary Air Pollution

#### Fortieth session

Geneva, 18 December 2020

Item 4 (c) of the provisional agenda

**Review of the implementation of the 2020–2021 workplan: compliance**

### **Twenty-third report of the Implementation Committee\***

#### **Submitted by the Implementation Committee**

#### *Summary*

In accordance with the structure and functions of the Implementation Committee under the Convention on Long-range Transboundary Air Pollution, the Committee is required to report at least once a year on its activities to the Executive Body for the Convention (ECE/EB.AIR/113/Add.1, decision 2012/25, annex, para. 9).

The twenty-third report of the Implementation Committee contains information on the Committee's activities in 2020 with regard to compliance by individual Parties to the Protocols to the Convention with their emission reduction and reporting obligations, summarizing the work carried out at the Committee's forty-fourth and forty-fifth sessions (Geneva (online), 13–14 May 2020 and 15–17 September 2020, respectively).

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\* The present document is being issued without formal editing.



## I. Introduction

1. At its thirty-eighth session (Geneva, 10–14 December 2018), the Executive Body for the United Nations Economic Commission for Europe (ECE) Convention on Long-range Transboundary Air Pollution re-elected the following members to the Convention's Implementation Committee: Austria (Mr. Manfred Ritter), Belgium (Ms. Wendy Altobello), Croatia (Mr. Igor Vukovic), France (Mr. Jean-Pierre Chang), Norway (Ms. Alice Gaustad), Serbia (Mr. Nebojša Redžić), Spain (Mr. Martin Fernandez Diez-Picazo), Sweden (Ms. Petra Hagström) and the United States of America (Ms. Jennifer Landsidle). It re-elected Mr. Manfred Ritter as Chair of the Implementation Committee. The United States of America replaced its Committee member with Mr. Andrew Neustaetter in advance of the forty-second session of the Implementation Committee (Stockholm, 7–9 May 2019). In advance of the forty-fourth session (Geneva (online), 13–14 May 2020), Croatia replaced its member with Ms. Kristina Tekic, and Spain replaced its member with Ms. Maria Jose Alonso Moya.
2. The forty-fourth and forty-fifth (Geneva (online), 15–17 September 2020) sessions of the Implementation Committee were serviced by the Convention secretariat.

## II. Compliance with emission reduction obligations

3. The Implementation Committee was unable to review compliance with emission reduction obligations of Albania under the 1985 Protocol on the Reduction of Sulphur Emissions or their Transboundary Fluxes and the Protocol concerning the Control of Emissions of Nitrogen Oxides or their Transboundary Fluxes (the Protocol on NOx) and that of the Republic of Moldova under the Protocol on Persistent Organic Pollutants (the Protocol on POPs) and the Protocol on Heavy Metals owing to missing submissions in 2020.

### A. Follow-up to Executive Body decisions

#### 1. Protocol on Heavy Metals

##### **Follow-up to Executive Body decision 2018/2 concerning compliance by Liechtenstein with the Protocol on Heavy Metals (ref. 24/13 (Hg), 6/17 (Cd))**

###### *Background*

4. In decision 2018/2, the Executive Body recalled its decision 2014/5 concerning compliance by Liechtenstein with the Protocol on Heavy Metals (ref. 24/13 (Hg)) and urged the Party to fulfil its obligations under article 3 (1) of the Protocol as soon as possible. It requested Liechtenstein to provide the Implementation Committee, through the secretariat, by 28 February 2019, with:
  - (a) Information on any additional measures that could be taken to reduce emissions of mercury and cadmium, and a quantitative assessment of their effects;
  - (b) A timetable specifying the year by which Liechtenstein expected to be in compliance.
5. The Executive Body invited the Party to participate in one of the Committee's meetings in 2019 to elaborate on the information provided and requested the Implementation Committee to review the progress and timetable of Liechtenstein, and to report to the Executive Body thereon at its thirty-ninth session.
6. The Implementation Committee considered the case at its forty-second and forty-third (Geneva, 10–12 September 2019) sessions. It noted the response from Liechtenstein of 7 August 2019. In its response, the Party reminded the Committee of the main sources of mercury and cadmium emissions and indicated that further clarifications, including those on the base year emissions, would be included in its submission in 2020. Liechtenstein hoped to have further information by mid-2020 that could be presented to the Committee at its forty-fifth session.

7. The Committee decided to continue to consider the case at its forty-fifth session and requested the secretariat to send a letter to Liechtenstein acknowledging that further information is expected by mid-2020 and to remind the Party to provide, in accordance with decision 2018/2:

(a) Information on any additional measures that could be taken to reduce emissions of mercury and cadmium, and a quantitative assessment of their effects;

(b) A timetable specifying the year by which Liechtenstein expected to be in compliance.

8. The secretariat sent a letter on 11 October 2019 inviting Liechtenstein to provide requested information by 31 July 2020.

#### *Deliberations*

9. The Implementation Committee considered the case at its forty-fifth session. It noted that no response had been received from Liechtenstein. According to the latest submission, emissions of cadmium in Liechtenstein in 2018 were 0.004 ton, which exceeded the base year level by approximately 157 per cent, and emissions of mercury were 0.000286 ton, which is below the base year level. The Implementation Committee concluded that Liechtenstein was in compliance with its obligations under the Protocol on Heavy Metals with respect to emissions of mercury. The Committee decided to continue to review the case of exceedance of cadmium emissions at its forty-sixth session and requested the secretariat to send a letter to the Minister of Home Affairs, Education and Environment of Liechtenstein asking her to provide information by 15 March 2021 on:

(a) The list of specific measures Liechtenstein intended to take to fulfil its emission reduction obligations; and

(b) A timetable specifying the year by which the country expected to be in compliance.

## **2. Protocol on Persistent Organic Pollutants**

### **(a) Follow-up to Executive Body decision 2013/8 concerning compliance by Denmark with the Protocol on Persistent Organic Pollutants (ref. 1/06 (PAH))**

#### *Background*

10. In its decision 2013/8, recalling decision 2006/8 and subsequent decisions, the Executive Body requested the Implementation Committee to review the progress and timetable of Denmark for achieving compliance with its obligations regarding emissions of polycyclic aromatic hydrocarbons (PAH) under the Protocol on POPs. The Committee continued to review the case at its thirty-fifth (Budapest, 27–29 May 2015), thirty-sixth (Geneva, 26–28 January 2016), thirty-seventh (Geneva, 13–15 September 2016), fortieth (Madrid, 16–18 May 2018) and forty-first (Geneva, 11–14 September 2018) sessions, noting the exceedance by Denmark of PAH emissions. It noted the deviation of the emission trend from projections presented by Denmark earlier. Denmark explained the deviation by variation of activity data. The Party expected to be in compliance with the Protocol not later than in 2020. Denmark participated in the forty-first session of the Implementation Committee, informing it about measures implemented to reduce PAH emissions. The Committee noted that the effectiveness of those measures might be reflected in the next reporting rounds.

11. At its forty-second session, the Implementation Committee continued its consideration of the case. It noted the slight decrease in the exceedance and that the Party expected to be in compliance not later than in 2020. The Committee decided to continue to review the case at its forty-fourth session.

#### *Deliberations*

12. The Implementation Committee considered the case at its forty-fourth and forty-fifth sessions. It noted that, in accordance with the latest submission, emissions of PAH in

Denmark in 2018 of 7.5 tons were below the 1990 base year level of 12.6 tons. The Committee concluded that Denmark was in compliance with its obligations under the Protocol on Persistent Organic Pollutants with respect to emissions of PAH and that there was no reason to continue to review the case.

**(b) Follow-up to Executive Body decision 2018/3 concerning compliance by Latvia with the Protocol on Persistent Organic Pollutants (ref. 3/10 (HCB))**

*Background*

13. In its decision 2018/3, the Executive Body recalled its decisions 2011/6, 2012/17 and 2014/7 and strongly urged Latvia to fulfil its obligation under the Protocol on Persistent Organic Pollutants as soon as possible and to inform the Implementation Committee about the progress in reducing emissions of hexachlorobenzene (HCB) and efforts of Latvia to comply with its obligations under the Protocol. The Executive Body decided to invite Latvia to participate in the Committee's meetings in 2019 to elaborate on the information provided. It requested the Implementation Committee to review the progress of Latvia towards compliance with its obligations under the Protocol and to report to the Executive Body thereon at its thirty-ninth session.

14. In accordance with the decision, the ECE Executive Secretary brought the matter to the attention of the Minister of Foreign Affairs of Latvia, noting that the obligation to reduce emissions of HCB was a binding obligation in international law that was accepted by Latvia when it ratified the Protocol in 2004. In its response to the secretariat, Latvia recognized the concern expressed by the Executive Body and expressed its readiness to attend the meetings of the Implementation Committee and to provide the information requested. Latvia noted that all HCB sources would be reviewed; it pointed to probable underestimation of HCB emissions from pesticides used in agriculture during historical years. Latvia would take further steps in terms of research and comprehensive review, results of which would be available prior to the forty-third session of the Committee.

15. A representative of Latvia participated in the forty-second and forty-third sessions of the Implementation Committee. The Committee noted that the review was still ongoing and would be finalized by the end of 2019. Latvia informed the Committee that revised emission data would be included in its 2020 submission. The Implementation Committee decided to continue considering the case at its forty-fourth session.

*Deliberations*

16. The Implementation Committee considered the case at its forty-fourth session. It took note of the report submitted by Latvia on 5 December 2019 and the presentation delivered by the Party at the thirty-ninth session of the Executive Body. It further noted that, according to the emission data submitted in 2020, emissions of HCB in Latvia of 0.5 kilogram were below the 1990 base year level of 5.66 kilograms. The Committee concluded that Latvia was in compliance with its obligations under the Protocol on Persistent Organic Pollutants with respect to emissions of HCB and that there was no reason to continue reviewing the case.

**(c) Follow-up to Executive Body decision 2018/2 concerning compliance by Liechtenstein with the Protocol on Persistent Organic Pollutants (ref. 4/17 (dioxin/furan, PAH, HCB))**

*Background*

17. In decision 2018/2, the Executive Body urged Liechtenstein to fulfil its obligations under article 3 (5) (a) of the Protocol on Persistent Organic Pollutants as soon as possible. It requested Liechtenstein to provide the Implementation Committee, through the secretariat, by 28 February 2019, with:

(a) Information on any additional measures that could be taken to reduce emissions of dioxin/furan, polycyclic aromatic hydrocarbons (PAHs) and hexachlorobenzene (HCB) and a quantitative assessment of their effects;

(b) A timetable specifying the year by which Liechtenstein expected to be in compliance.

18. The Executive Body invited the Party to participate in one of the Committee's meetings in 2019 to elaborate on the information provided and requested the Implementation Committee to review the progress and timetable of Liechtenstein, and to report to the Executive Body thereon at its thirty-ninth session.

19. The Implementation Committee considered the case at its forty-second and forty-third sessions. It noted the response from Liechtenstein of 7 August 2019, in which it referred to its letter of 16 August 2018 clarifying that the main source of emissions was residential wood combustion promoted by the national energy and greenhouse gases mitigation strategy and that visual inspections and information campaigns to promote low emission firing were among implemented measures and that no additional measures were foreseen. Liechtenstein also stated that further clarifications, including those on the base year emissions, would be included in its submission in 2020 and expressed the hope that it would have further information by mid-2020 that could be presented to the Committee at its meeting in September 2020.

20. The Committee decided to continue to consider the case at its forty-fifth session and requested the secretariat to send a letter to Liechtenstein acknowledging that further information was expected by mid-2020 and to remind the Party to provide, in accordance with decision 2018/2:

(a) Information on any additional measures that could be taken to reduce emissions of mercury and cadmium, and a quantitative assessment of their effects;

(b) A timetable specifying the year by which Liechtenstein expected to be in compliance.

21. The secretariat sent a letter on 11 October 2019 inviting Liechtenstein to provide requested information by 31 July 2020.

#### *Deliberations*

22. The Implementation Committee considered the case at its forty-fifth session. It noted that the reported dioxins/furans emissions in 2018 in Liechtenstein were 0.10103 gram, which was below the base year level of 0.125 gram, whereas emissions of PAH and HCB were still exceeding the base year levels by approximately 13 per cent and 73 per cent, respectively. The Committee concluded that Liechtenstein was in compliance with its emission reduction obligations for dioxins/furans. The Committee also noted that Liechtenstein has not responded to the latest letter sent by the secretariat. The Committee agreed to continue to review the case of exceedance of PAH and HCB emissions at its forty-sixth session and requested the secretariat to send a letter to the Minister of Home Affairs, Education and Environment of Liechtenstein, asking her to provide information by 15 March 2021 on:

(a) The list of specific measures Liechtenstein intended to take to fulfil its emission reduction obligations; and

(b) A timetable specifying the year by which the country expected to be in compliance.

### **3. Protocol to Abate Acidification, Eutrophication and Ground-level Ozone**

#### **Follow-up to Executive Body decision 2017/2 concerning compliance by Norway with the Protocol to Abate Acidification, Eutrophication and Ground-level Ozone (ref. 26/13 (NH<sub>3</sub>))**

##### *Background*

23. At its thirty-seventh session (Geneva, 11–14 December 2017), the Executive Body noted with concern that, in spite of the efforts made, Norway had failed to fulfil its obligation to maintain its annual emissions of ammonia (NH<sub>3</sub>) in accordance with the ceiling specified in annex II to the Protocol to Abate Acidification, Eutrophication and Ground-level Ozone

(Gothenburg Protocol), as required by article 3 (1) of the Protocol. The Executive Body requested Norway to provide the Implementation Committee, through the secretariat, by 31 July 2018, with:

- (a) A quantitative assessment of the effects of current and planned policy measures;
- (b) A timetable specifying the year by which Norway expected to be in compliance.

24. It further requested the Implementation Committee to review the progress and timetable of Norway, and to report to the Executive Body thereon at its thirty-eighth session.

25. The Committee further considered the case at its forty-first and forty-third sessions, taking into account information provided by Norway. At its forty-third session, the Committee noted the response by Norway with an overview of NH<sub>3</sub> emissions trends and recalculations and information on policy measures and assessments of abatement options to reduce NH<sub>3</sub> emissions. It further noted that, according to the provided information, the most updated projections indicated that Norway expected to exceed its emission ceilings and commitments both for 2010 and 2020 as contained in annex II to the Gothenburg Protocol, as amended, unless additional abatement measures were implemented. Norway indicated that it was still not able to present a reliable timetable identifying the year when it expected to be in compliance with its emissions commitments contained in annex II. The Committee further noted that Norway had mandated a comprehensive assessment of further abatement measures to be completed by December 2019. The findings from that assessment would be the basis for further revision of regulations and grant schemes.

26. The Committee decided to continue to review the case at its forty-fifth session and requested the secretariat to invite Norway to provide to the Committee, by 31 July 2020, further information on the quantitative assessment of additional abatement measures and a timeline indicating when Norway expected to be in compliance.

#### *Deliberations*

27. The Committee considered the case at its forty-fifth session. It noted that according to the latest available emissions data, emissions of ammonia in 2018 reached 34.8 kilotons, which exceeded the 2010 ceiling by 51 per cent. The Committee noted the response by Norway providing a report on its ammonia emissions and reaching compliance with its obligations under the Gothenburg Protocol. According to information provided in the report, ammonia emissions were expected to exceed the 2010 ceiling for the foreseeable future. The most recent projections also indicated that emissions were expected to exceed the 2020 ceiling under the amended Protocol, unless additional abatement measures were implemented; however, revised methodologies applied to Norway's inventory had not yet been incorporated into these most recent projections. The Committee noted the quantitative and qualitative information provided by Norway on emission abatement potential in the agriculture sector, and Norway's planned steps to continue improving its inventory and projections and to continue evaluating and implementing policy actions to reduce its ammonia emissions.

28. The Committee noted that Norway was a Party to the Gothenburg Protocol as amended in 2012. Taking into account the 2020-2021 workplan for the implementation of the Convention (ECE/EB.AIR/144/Add.2, para.9) and prioritisation of the Committee's work in line with Executive Body decision 2019/2, the Committee decided to review compliance with respect to the emissions of ammonia under the Gothenburg Protocol in 2022. At that point, in accordance with decision 2019/2, it would consider compliance against the commitments for 2020 and beyond in the Gothenburg Protocol as amended in 2012.

**B. Follow-up on submissions and referrals initiated by the secretariat during the period 2014–2019 that are still under consideration**

**1. 1985 Protocol on the Reduction of Sulphur Emissions or their Transboundary Fluxes by at least 30 per cent**

**Follow-up to the referral by the secretariat concerning compliance by North Macedonia with the 1985 Sulphur Protocol (ref. 1/14)**

*Background*

29. The Committee considered the referral by the secretariat concerning compliance of North Macedonia with the 1985 Protocol on the Reduction of Sulphur Emissions or their Transboundary Fluxes by at least 30 per cent (1985 Sulphur Protocol) at its thirty-fourth (Geneva, 8–10 September 2014), thirty-fifth, thirty-sixth, thirty-ninth (Geneva, 5–7 September 2017) and forty-first sessions. Representatives of North Macedonia participated in the thirty-ninth session, informing the Committee about plans to reduce sulphur emissions and the approval of the National Emission Reduction Plan by the Government. They furthermore stated that the implementation of the plan was under way and that it was expected that the Party would be in compliance with its obligations in time for the reporting round in 2020.

30. At the request of the Implementation Committee, the Party provided its progress report in 2018, confirming that the implementation of the plans to reduce sulphur was underway and that the emissions had already been reduced. The Party expected to be in compliance with its obligations in reporting year 2020 at the earliest. North Macedonia committed to continuing to inform the secretariat in a timely fashion about progress in the implementation of the plans to reduce sulphur emissions.

31. At its forty-second session, the Implementation Committee noted the decreasing trend of sulphur emissions in North Macedonia. Taking into account that the Party was expecting to be in compliance with its emission obligations in reporting year 2020 at the earliest, the Committee decided to continue to review the case at its forty-fourth session.

*Deliberations*

32. The Implementation Committee considered the case at its forty-fourth and forty-fifth sessions. At its forty-fourth session, the Committee noted the increase in sulphur emissions to 60.9 kilotons in 2018. It requested the secretariat to send a letter to North Macedonia requesting information on:

(a) The implementation of its national emission reduction plan and the effects this implementation had on emission reduction; and

(b) The year North Macedonia expected to be in compliance with its obligations under the Protocol.

33. At its forty-fifth session, the Implementation Committee noted the information provided by North Macedonia, in which it confirmed its commitment to implement the planned measures to reduce the sulphur emissions. The Party informed the Committee that the negotiations on the permit for the largest power plant were delayed due to the Covid-19 pandemic and Governmental elections. The Committee further noted that North Macedonia was in compliance with its obligations under the 1994 Sulphur Protocol and the Gothenburg Protocol. It decided to continue to review the case in 2022.

## 2. Protocol concerning the Control of Emissions of Nitrogen Oxides and their Transboundary Fluxes

### **Follow-up to the referral by the secretariat concerning compliance by Albania with the Protocol concerning the Control of Emissions of Nitrogen Oxides and their Transboundary Fluxes (ref. 1/17 (NO<sub>x</sub>))**

#### *Background*

34. The submission of emission data for nitrogen oxides (NO<sub>x</sub>) received from Albania in 2017 indicated an exceedance of the base year emission level by approximately 48 per cent. The Committee considered the case of compliance of Albania with its obligations under article 2 (1) of the Protocol on NO<sub>x</sub> at its thirty-ninth, fortieth and forty-first sessions. A representative of Albania participated in the Committee's forty-first session and provided information regarding the Party's ongoing work on improving its emission inventory and measures it intended to implement to reduce NO<sub>x</sub> emissions.

35. The Committee noted that the Party was undertaking improvements to its institutional arrangements to ensure better continuity in their inventory preparations, which was expected to improve the quality of the emission inventories. It also noted that a project had been initiated to improve the estimate of the base year emissions of NO<sub>x</sub>, which was expected to give a better reflection of actual emissions in 1987. The revised base year emission data would be included in the Party's reporting in 2019. Furthermore, the Committee took note of several measures that Albania was planning to implement to reduce nitrogen oxides emissions, in particular those from the road traffic sector.

36. The Committee continued to consider the case at its forty-second session. The Committee noted that the emissions of nitrogen oxides continued to increase. It also noted that the intention of Albania to improve the estimate of the base year emissions of NO<sub>x</sub> had not been reflected in the 2019 submission.

37. At its forty-third session, the Committee considered the draft report for the Stage 3 in-depth review of emission inventories of Albania. The Committee decided to continue to review the case at its forty-fourth session and requested the secretariat to send a letter to Albania asking it to provide the following information by 28 February 2020:

(a) An update on the planned improvements of the inventory to better reflect emissions at the base year;

(b) A list of specific measures Albania intended to take to reduce its emissions in order to fulfil its emission reduction obligations;

(c) A timetable specifying the year by which the country expected to be in compliance.

#### *Deliberations*

38. The Committee considered the case at its forty-fourth and forty-fifth sessions. It noted that Albania had not submitted its emission data in 2020 and had not responded to the letter by the secretariat. The Committee requested the secretariat to remind Albania of the request made in 2019 and to invite the Party to participate in the forty-sixth session of the Committee. The Committee decided to continue to review the case at its forty-sixth session.

## 3. Protocol on Persistent Organic Pollutants

### **(a) Follow-up to the referral by the secretariat concerning compliance by Croatia with the Protocol on Persistent Organic Pollutants (ref. 2/16 (HCB))**

#### *Background*

39. Emission data submitted in 2016 indicated an exceedance of emissions of HCB in Croatia in 2014 by 63 per cent, as compared with the emission level in the base year. This information suggested that Croatia was not compliant with its obligation under article 3 (5) (a) of the Protocol on Persistent Organic Pollutants. The Committee considered the case



at its thirty-eighth (Leuven, Belgium, 28 February–2 March 2017), thirty-ninth and fortieth sessions. The Committee noted the information provided by Croatia, which included a summary of the calculation results for HCB emissions. The Party explained that the exceedance was mainly based on an outstanding recalculation of biomass consumption in the small combustion sector. It further informed the Committee that the increase in HCB emissions in 2014 was due to inconsistent methodologies for obtaining data on biomass consumption in the national energy balances for the period 1990–2014. Croatia indicated its plan to undertake revision of the annual energy balance and to define further activities and measures to reduce HCB emissions.

40. The Committee requested the secretariat to send a letter to Croatia asking the Party to specify, by 28 February 2019:

- (a) The year by which Croatia was planning to finalize the recalculation;
- (b) The year Croatia expected to be in compliance with its obligations under the Protocol.

41. The Committee continued to consider the case at its forty-second session. It noted the effort of Croatia to improve its HCB emission inventory and to correct current inconsistencies in energy balance in past years concerning, in particular, biomass consumption in energy sectors. A representative of Croatia participated in the session. She confirmed that the project on revised energy balance for the full time series since 1990 would be finalized by July 2019 and noted that the finalized recalculation of HCB would be available within the next inventory submission in February 2020. Concerning possible policies and measures, she reiterated the Party's intention to make additional efforts to resolve the issue and to find appropriate solutions in order to comply with the commitments made. The Implementation Committee concluded that it would continue to consider the case in 2020.

#### *Deliberations*

42. The Committee considered the case at its forty-fourth session. According to the 2020 submission, emissions of HCB in Croatia in 2018 of 0.6 kilogram were below the base year level of 7.09 kilograms. The Committee noted that the reason of the significant change of HCB emission trend compared to previous submissions was the inclusion in the inventory of the HCB emissions from pesticide use. The Committee concluded that Croatia was in compliance with its obligations under the Protocol with respect to emissions of HCB and that there was no reason to continue reviewing the case.

#### **(b) Follow-up to the referral by the secretariat concerning compliance by Luxembourg with the Protocol on Persistent Organic Pollutants (ref. 7/16 (HCB))**

##### *Background*

43. The 2016 submissions of HCB emission data received from Luxembourg indicated an exceedance of the base year emission level by 1 per cent. This information seemed to suggest that Luxembourg was in non-compliance with its obligations under article 3 (5) (a) of the Protocol on Persistent Organic Pollutants. The Committee considered the referral at its thirty-eighth, thirty-ninth, fortieth and forty-first, forty-second and forty-third sessions. According to the data submitted in 2018, emissions of HCB in Luxembourg in 2016 exceeded the base year level by 34 per cent. The Committee noted the response provided by Luxembourg, where it suggested excluding emissions from secondary iron and steel production and road transportation from compliance checking based on the fact that these were new sources and that, in the case of road transportation, the estimation was based on a non-reliable emission factor.

44. The Committee addressed the issue to the Co-Chair of the Task Force on Emissions Inventories and Projections, who provided insights into the inventory preparation in relation to the issues raised by Luxembourg. In the light of the above, the Committee decided to continue to review the case. It invited the secretariat to send a letter to Luxembourg, informing the Party of these considerations and of the possibility to contact the Task Force for further guidance.

45. At its forty-third session, the Committee acknowledged the recalculation the Party had made and noted the resulting decrease of the exceedance. It requested the secretariat to send a letter to Luxembourg asking it for information to be provided by 31 July 2020 on specific measures to fulfil the emission reduction obligations and a timetable specifying the year by which Luxembourg expected to be in compliance. The Committee decided to continue to review the case at its forty-fifth session.

#### *Deliberations*

46. The Implementation Committee considered the case at its forty-fifth session. The Committee noted the increase in emissions of HCB in 2018 and that there was no response received from Luxembourg. It asked the secretariat to send a letter to the Minister of Environment, Climate and Sustainable Development of Luxembourg as a reminder to provide the Committee with the previously requested information. It decided to continue to review the case at its forty-sixth session.

### **(c) Follow-up to the referral by the secretariat concerning compliance by Finland with the Protocol on Persistent Organic Pollutants (ref. 1/19 (PAH))**

#### *Background*

47. The 2019 submission of emission data received from Finland indicated that there was an exceedance of the base year level for PAH by approximately 36 per cent. The base year level of PAH emissions was 7.47 tons, whereas in 2017 emissions reached 10.15 tons. This information seemed to suggest that Finland was in non-compliance with its obligations under article 3 (5) (a) of the Protocol on Persistent Organic Pollutants. In its response to the secretariat, Finland submitted information on the sources of emissions, which mainly included residential wood combustion. The Party clarified that the emission inventory for residential combustion took into account different types of technologies and equipment used and also changes in the use of technologies. The emission factors were based on measurements. Finland also provided information on measures implemented to reduce PAH emissions.

48. The Committee considered the referral at its forty-second session. It noted the information provided by Finland. The Committee requested the secretariat to send a letter to Finland requesting the Party, by 28 February 2020, to provide:

- (a) A list of specific measures Finland intended to take to fulfil its emission reduction obligations under the Protocol;
- (b) The quantitative and projected effects of further and more effective measures to reduce its PAH emissions up to and including the year of predicted compliance;
- (c) A timetable specifying the year by which it expected to be in compliance.

49. The Committee decided to continue to review the case at its forty-fourth session.

#### *Deliberations*

50. The Committee considered the case at its forty-fourth session. According to the latest available data, emissions of PAH in Finland in 2018 reached 10 tons, which exceeded the base year level by 33 per cent. The Committee noted the response provided by Finland on 28 February 2020, in which the Party indicated the increased use of wood for residential heating as the reason for exceedance and three categories of measures included in its National Air Pollution Control Programme. The Committee further noted that quantitative effects of the described measures had not been projected yet and that Finland was unable to specify a timetable for reaching compliance. It decided to continue to review the case in 2021.

**(d) Follow-up to the referral by the secretariat concerning compliance by Iceland with the Protocol on Persistent Organic Pollutants (ref. 8/19 (HCB))**

*Background*

51. The latest submission of emission data for HCB received from Iceland indicated that there had been an exceedance of the base year emission levels by 280 per cent. Emissions of HCB in 1990 in Iceland were 0.024 kilogram, whereas in 2017 they reached 0.09 kilogram. This information seemed to suggest that Iceland is in non-compliance with its obligations under article 3 (5) of the Protocol on Persistent Organic Pollutants. The secretariat informed Iceland of its intention to refer the issue to the Implementation Committee unless the Party could provide information to resolve the issue by showing that it was in fact in compliance with the Protocol. The Party did not respond. The secretariat subsequently informed Iceland of the referral of the case to the Implementation Committee. Iceland responded, pointing to missing emission factors for open pit burning in the 2016 Guidebook.<sup>1</sup> Iceland suggested that, for this reason, emissions in 1990 were underestimated. The Party noted that it intended to reconsider its approach to emissions calculation and that it was ready to provide further information to the Committee.

52. The Committee considered the referral at its forty-third session. It noted the information provided by Iceland. The Committee decided to ask the Co-Chairs of the Task Force on Emission Inventories and Projections to provide advice on the approach of Iceland to emissions calculation and to continue considering the referral in 2020.

*Deliberations*

53. The Committee considered the case at its forty-fourth and forty-fifth sessions. At its forty-fifth session, the Committee noted the recalculated data submitted by Iceland, according to which emissions of HCB in Iceland in 2018 were below the base year level by 55 per cent. It also noted the response provided by Iceland on the advice from the Co-Chairs of the Task Force on Emission Inventories and Projections. The Committee concluded that there was no reason to continue reviewing the case.

**4. Protocol on Heavy Metals**

**(a) Follow-up to the referral by the secretariat concerning its compliance by Monaco with the Protocol on Heavy Metals (ref. 5/19 (Hg))**

*Background*

54. The 2019 submission of emission data for mercury received from Monaco indicated that there was an exceedance of the base year emission levels by 114 per cent. Emissions of mercury in 1992 in Monaco were 0.002 tons, whereas in 2017 they reached 0.004 tons. This information seemed to suggest that Monaco was in non-compliance with its obligations under article 3 (1) of the Protocol on Heavy Metals. The secretariat informed Monaco of its intention to refer the issue to the Implementation Committee unless the Party could provide information to resolve the issue by showing that it was in fact in compliance with the Protocol. In its response, Monaco explained that the emissions were related to public electricity and heat production; new calculations based on direct measurements were made, however the new data showed significant variations in the reported emissions. The Party noted that quality assurance was being undertaken in this regard. The secretariat subsequently informed Monaco of the referral of the case to the Implementation Committee.

55. The Committee considered the referral at its forty-third session. It noted the emission data resubmitted by Monaco on 30 July 2019 and information provided by the Party. The Committee decided to continue reviewing compliance by Monaco in 2020 with its obligations regarding mercury emissions under the Protocol on Heavy Metals.

<sup>1</sup> EMEP/EEA air pollutant emission inventory guidebook 2016, European Environment Agency Report No. 21/2016 (Luxembourg: Publications Office of the European Union, 2016).

*Deliberations*

56. The Committee considered the case at its forty-fifth session. According to emission data submitted in July 2020, emissions of mercury in 2018 were 0.0004 ton, which was below the base year level of 0.002 ton. The Committee noted that Monaco was in compliance with its emission reduction obligations under the Protocol on Heavy Metals for mercury and concluded that there was no reason to continue reviewing the case.

**5. Gothenburg Protocol****(a) Follow-up to the referral by the secretariat concerning compliance by Germany with the Gothenburg Protocol (ref. 2/15 (NH<sub>3</sub>))***Background*

57. The submission of NH<sub>3</sub> emission data in 2015 by Germany indicated an exceedance of the emission ceiling by 22 per cent, which suggested that Germany was not complying with its obligation under article 3 (1) of the Gothenburg Protocol. The Committee considered the referral at its thirty-sixth, thirty-eighth and fortieth, forty-second and forty-third sessions. Representatives of Germany participated in the thirty-eighth session, informing the Committee of the approved adjustment of the inventory in view of the new source category<sup>2</sup> by the Steering Body for EMEP in September 2016. Germany was also expecting a decrease in reported emissions in view of the updated emission factor for nitrogen mineral fertilizer application. The corresponding recalculation would be applied in the 2018 reporting round. Furthermore, the representatives of Germany confirmed the planned introduction of policy measures to reduce NH<sub>3</sub> emissions, in particular through amendments to the Federal Ordinance on Fertilizer Application and to the Technical Instructions on Air Quality Control.

58. At its fortieth session, the Committee noted information provided by Germany in response to the Committee's request. The Party was expecting the additional measures to reduce NH<sub>3</sub> emissions to take effect within the period 2018–2025. The Committee requested the secretariat to invite the Party to provide, by 28 February 2019, a specific timeline for achieving compliance.

59. At its forty-second session, the Implementation Committee noted the information provided by Germany outlining the envisaged effects of the additional measures to reduce NH<sub>3</sub> emissions. The Committee further noted that no specific timeline for achieving compliance had been provided by Germany.

60. At its forty-third session, the Implementation Committee decided to continue reviewing the case at its forty-fifth session. It requested the secretariat to send a letter to Germany requesting the Party to provide, by 31 July 2020, additional information on progress in implementing the measures and the timeline specifying the year by which Germany was expecting to achieve compliance.

*Deliberations*

61. The Implementation Committee considered the case at its forty-fifth session. It noted that, according to the latest submission, the approved adjusted emissions of ammonia in 2018 exceeded the 2010 ceiling by 5 per cent. The Committee noted the downward trend in emissions of ammonia. The Committee further noted that Germany was a Party to the Gothenburg Protocol as amended in 2012. Taking into account the 2020-2021 workplan for the implementation of the Convention and prioritisation of the Committee's work in line with Executive Body decision 2019/2, the Committee decided to review compliance with respect to the emissions of ammonia under the Gothenburg Protocol in 2022. At that point, in accordance with decision 2019/2, it would consider compliance against the commitments for 2020 and beyond in the Gothenburg Protocol as amended in 2012.

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<sup>2</sup> See ECE/EB.AIR/GE.1/2016/2–ECE/EB.AIR/WG.1/2016/2, paras. 18 and 19.

**(b) Follow-up to the referral by the secretariat concerning compliance by Croatia with the Gothenburg Protocol (ref. 1/18 (NH<sub>3</sub>))**

*Background*

62. The submission of NH<sub>3</sub> emission data received from Croatia in 2018 indicated an exceedance of the emission ceiling by approximately 17 per cent. This information suggested that Croatia was not compliant with its obligations under article 3 (1) of the Gothenburg Protocol. The secretariat subsequently referred the case to the Committee. Croatia acknowledged the referral, informing the Committee that the uncertainties pertinent to the calculation of NH<sub>3</sub> emissions would be resolved within the next months and that additional documentation would be available not later than in November 2018.

63. The Committee considered the referral at its forty-first session and again at its forty-second session. At its forty-second session, the Committee noted the information provided by Croatia in February and April 2019 in response to the Committee's request for information. A representative of Croatia participated in the session and informed the Committee about the draft national air pollution control programme. Depending on the approval of this programme and the implementation of the proposed additional measures, the Party expected to be in compliance with its obligations by 2023–2025. Furthermore, the representative of Croatia mentioned uncertainties regarding NH<sub>3</sub> emission estimations and indicated that the Party was making improvements to its inventory. The Committee noted that Croatia indicated it was committed to undertaking the necessary steps to assess and resolve the issue of non-compliance. The Committee decided to continue to review the case at its forty-fourth session.

*Deliberations*

64. The Committee considered the case at its forty-fourth and forty-fifth sessions. The Committee noted that emissions of NH<sub>3</sub> in Croatia in 2018 of 35.7 kilotons exceeded the 2010 ceiling of 30 kilotons by 19 per cent. The Committee further noted that although there have been fluctuations from year to year and a modest increase since 2014, there has been overall a reduction in emissions since 2005. The Committee noted that Croatia was a Party to the Gothenburg Protocol as amended in 2012. Taking into account the 2020-2021 workplan for the implementation of the Convention and prioritisation of the Committee's work in line with Executive Body decision 2019/2, the Committee decided to review compliance with respect to the emissions of ammonia under the Gothenburg Protocol in 2022. At that point, in accordance with decision 2019/2, it would consider compliance against the commitments for 2020 and beyond in the Gothenburg Protocol as amended in 2012.

**(c) Follow-up to the submission by Norway concerning its compliance with the Gothenburg Protocol (ref. 2/19 (NO<sub>x</sub>))**

*Background*

65. The secretariat received a letter dated 3 May 2019 from Norway concerning its compliance with the Gothenburg Protocol with respect to NO<sub>x</sub> emissions. In 2017, emissions of NO<sub>x</sub> in Norway had reached 162.7 kilotons, which exceeded the 2010 ceiling of 156 kilotons by 4 per cent. In its submission, Norway reported on recalculations made for the whole time series for particular categories, which resulted in higher amounts for NO<sub>x</sub> emissions. The difference between emissions reported in 2018 and those reported in 2019 could be mostly explained by changes in activity data in the national navigation sector and changes in methodology in the agriculture sector. At the same time, there was a downward trend for NO<sub>x</sub> emissions as a result of implementation of abatement measures. Norway expected to be in compliance with the 2010 Gothenburg Protocol NO<sub>x</sub> emissions ceiling within some years.

66. The Committee considered the submission by Norway at its forty-third session. Noting the downward trend of NO<sub>x</sub> emissions, the Committee decided to continue to review the case at its forty-fourth session.

*Deliberations*

67. The Committee considered the submission by Norway at its forty-fourth session. The Committee noted that emissions of NO<sub>x</sub> in Norway in 2018 had reached 160.2 kilotons, which exceeded the 2010 ceiling by 3 per cent. It further noted that Norway was a Party to the Gothenburg Protocol as amended in 2012. Taking into account the 2020-2021 workplan for the implementation of the Convention and prioritisation of the Committee's work in line with Executive Body decision 2019/2, the Committee decided to review compliance with respect to the emissions of NO<sub>x</sub> under the Gothenburg Protocol in 2022. At that point, in accordance with decision 2019/2, it would consider compliance against the commitments for 2020 and beyond in the Gothenburg Protocol as amended in 2012.

**C. New referrals initiated in 2020****1. The Protocol on Heavy Metals****(a) Referral by the secretariat concerning compliance by the Netherlands with the Protocol on Heavy Metals (ref. 1/20 (Cd))***Background*

68. The latest submission of emission data for cadmium received from the Netherlands indicate that there was an exceedance of the base year emission levels by approximately 12 per cent. In 1990, which is the base year for the Netherlands, the emissions of cadmium were 2.08 tons, while in 2018 they reached 2.3 tons. This information seemed to suggest that the Netherlands is in non-compliance with its obligations under article 3, paragraph 1 of the Protocol on Heavy Metals. The secretariat informed the Party about its intention to refer the issue to the Implementation Committee unless the Party could provide information to resolve the issue by showing that it was in fact in compliance with the Protocol. The Netherlands did not respond. The secretariat informed the Party of the referral of the case to the Implementation Committee.

*Deliberations*

69. The Committee considered the referral at its forty-fifth session. It requested the Party to provide to the secretariat by 15 March 2021 information on:

- (a) List of specific measures the Netherlands intended to take to fulfil its emission reduction obligations;
- (b) The quantitative and projected effects of these measures;
- (c) A timetable specifying the year by which the Party expected to be in compliance. The Committee decided to continue to review the case at its forty-sixth session.

**(b) Referral by the secretariat concerning compliance by Slovakia with the Protocol on Heavy Metals (ref. 2/20 (Cd))***Background*

70. The latest emission data for cadmium received from Slovakia indicate that there was an exceedance of the base year emission levels by approximately 10 per cent. In 1990, which is the base year for Slovakia, the emissions of cadmium were 1.52 tons, while in 2018 they reached 1.7 tons. This information seemed to suggest that Slovakia is in non-compliance with its obligations under article 3, paragraph 1 of the Protocol on Heavy Metals. The secretariat informed the Party in a letter about its intention to refer the issue to the Implementation Committee unless the Party could information to resolve the issue by showing that it was in fact in compliance with the Protocol. Slovakia explained that the increase in copper production caused the exceedance in emissions of cadmium. The Party noted that methodological improvements of emission inventories for heavy metals were foreseen for the next reporting round. These would take into account the implemented abatement

technologies. The secretariat informed the Party of the referral of the case to the Implementation Committee.

#### *Deliberations*

71. The Committee considered the referral at its forty-fifth session. It noted the information provided by Slovakia and decided to continue to review the case at its forty-sixth session.

## **2. The Gothenburg Protocol**

### **(a) Referral by the secretariat concerning compliance by Spain with the Gothenburg Protocol (ref. 3/20 (NH<sub>3</sub>))**

#### *Background*

72. The latest submission of NH<sub>3</sub> emission data received from Spain indicated an exceedance of the emission ceiling by approximately 33 per cent in 2018. This information seemed to suggest that Spain was not compliant with its obligations under article 3 (1) of the Gothenburg Protocol. The secretariat informed Spain about its intention to refer the issue to the Implementation Committee unless the Party could provide information to resolve the issue by showing that it was in fact in compliance with the Protocol. Spain acknowledged the exceedance and pointed to obsolete methodologies used by the Party to calculate the absolute ceilings under the 1999 Gothenburg Protocol. Spain recalled its adjustment application in 2017, which was subsequently rejected. It further recalled the Executive Body considering the issue referred to it by the EMEP Steering Body at its thirty-eighth and thirty-ninth sessions and its decision 2019/2. In its letter, Spain also mentioned its measures planned to reduce emission of ammonia from agriculture and the estimated reductions. The secretariat sent a letter informing the Party about the referral of the case to the Implementation Committee.

#### *Deliberations*

73. The Committee considered the referral at its forty-fifth session. The Committee noted the information provided by Spain. The Committee noted that Spain was a Party to the Gothenburg Protocol as amended in 2012. Taking into account the 2020-2021 workplan for the implementation of the Convention and prioritisation of the Committee's work in line with Executive Body decision 2019/2, the Committee decided to review compliance with respect to the emissions of ammonia under the Gothenburg Protocol in 2022. At that point, in accordance with decision 2019/2, it would consider compliance against the commitments for 2020 and beyond in the Gothenburg Protocol as amended in 2012.

## **3. The Protocol on Persistent Organic Pollutants**

### **(a) Referral by the secretariat concerning compliance by Spain with the Protocol on Persistent Organic Pollutants (ref. 4/20 (PAH))**

#### *Background*

74. The latest submission of emission data for PAH received from Spain indicate that there was an exceedance of the base year emission levels by approximately 2 per cent. In 1990, which is the base year for Spain, the emissions of PAH were 138 tons; while in 2018 they reached 140.9 tons. This information seemed to suggest that Spain is in non-compliance with its obligations under article 3 paragraph 5 of the Protocol on POPs. The secretariat informed Spain about its intention to refer the issue to the Implementation Committee unless the Party could provide information to resolve the issue by showing that it was in fact in compliance with the Protocol. In its response, Spain pointed to open burning of waste and stationary residential combustion as the main sources of PAH emissions in the country. It outlined measures planned to reduce emissions from these sources and estimated reduction in emissions of PM<sub>2.5</sub>, which was expected to reduce PAH emissions. The secretariat subsequently informed Spain of the referral of the case to the Implementation Committee.

*Deliberations*

75. The Committee considered the referral at its forty-fifth session. The Committee noted the information provided by Spain on its efforts to comply with its obligations under the Protocol and measures foreseen in the National Air Pollution Control Programme. It requested the Party to provide to the secretariat by 15 March 2021 information on:

- (a) List of specific measures Spain intended to take to fulfil its emission reduction obligations;
- (b) The quantitative and projected effects of these measures;
- (c) A timetable specifying the year by which the Party expected to be in compliance. The Committee decided to continue to review the case in 2021.

### III. Compliance with reporting obligations

76. In line with item 3.1 of the 2020–2021 workplan for the implementation of the Convention, the Committee evaluated compliance by Parties with their emission data reporting obligations on the basis of information provided by the secretariat and responses by Parties. The information on reporting compiled by the Centre on Emission Inventories and Projections and provided by the secretariat is presented in informal document No. 2<sup>3</sup> and covers data reported up to 3 September 2020.

#### A. Follow-up to Executive Body decisions

##### 1. Follow-up to decision 2013/19 concerning compliance by the Republic of Moldova with its obligation to report gridded emission data

77. In decision 2013/19, paragraph 4 (c), the Executive Body urged the Republic of Moldova to provide its missing gridded data for 2005 and 2010 under the Protocols on Persistent Organic Pollutants and Heavy Metals. The secretariat informed the Committee that, as of 3 September 2020, the Republic of Moldova had not provided its missing gridded data under either Protocol.

78. The Committee recalled the information provided by the Party in 2019 and its previous consideration of the case and further encouraged the Republic of Moldova to continue efforts to develop its gridded data. The Committee agreed to continue to review the case in 2021.

#### B. Referrals concerning reporting of emission data

##### 1. Referrals initiated in 2015–2019 still under consideration

79. At its thirty-sixth, thirty-seventh, thirty-ninth, forty-first, forty-third and forty-fifth sessions, the Committee considered referrals submitted by the secretariat in 2015–2019.

*Iceland*

80. The Committee considered the referral by the secretariat concerning compliance by Iceland with its reporting obligations under the Protocol on Persistent Organic Pollutants (gridded data) (R32/17). The Party had not provided its missing data. The Committee agreed to continue to review the case in 2021.

*Liechtenstein*

81. The Committee considered the referrals by the secretariat concerning compliance by Liechtenstein with its obligations to report its gridded data under the 1994 Sulphur Protocol,

<sup>3</sup> Available from the web page for the Executive Body's fortieth session <http://www.unece.org/index.php?id=52978>.



the Protocol on Volatile Organic Compounds, the Protocol on Persistent Organic Pollutants and the Protocol on Heavy Metals (R10/17, R16/17, R22/17, R34/17). The Party had not provided its missing data. The Committee agreed to continue to review the case in 2021.

#### *Montenegro*

82. The Committee considered the referrals by the secretariat concerning compliance by Montenegro with its reporting obligations under the Protocol on Heavy Metals and the Protocol on Persistent Organic Pollutants (annual and gridded data) (R20/17, R23/17, R30/17 and R35/17). The Party provided its missing annual data but not gridded data. The Committee agreed to continue to review the case in 2021.

#### *North Macedonia*

83. The Committee considered the referral by the secretariat concerning compliance by North Macedonia with its reporting obligations under the Gothenburg Protocol (R12/15) with missing projections for 2020 for NH<sub>3</sub>, as well as projections for 2025 and 2030 for all pollutants. The Party had not provided its missing data. The Committee agreed to continue to review the case in 2021.

#### *Republic of Moldova*

84. The Committee considered the referrals by the secretariat concerning compliance by the Republic of Moldova with its obligations under the Protocol on Heavy Metals and the Protocol on Persistent Organic Pollutants to report gridded data (R25/17, R37/17) and annual data for 2017 (R1/19). The Party had not provided its missing gridded data. It provided its missing annual data for 2017 but did not report its annual data for 2018. The Committee agreed to continue to review the case in 2021.

#### *Serbia*

85. The Committee considered the referrals by the secretariat concerning compliance by Serbia with its obligations under the Protocol on Heavy Metals and the Protocol on Persistent Organic Pollutants to report gridded data (R27/17, R39/17). The Party had not provided its missing data. The Committee agreed to continue to review the case in 2021.

## **2. Referral initiated in 2020 under the Protocols to the Convention**

86. At its forty-fifth session, the Committee also considered a referral by the secretariat concerning compliance of Albania (R1/20) with its obligation to report annual data under the 1985 Sulphur Protocol and the Protocol on NO<sub>x</sub>. The Committee agreed to continue to review the case in 2021.

## **IV. Other business**

87. The Committee provisionally decided to hold its forty-sixth and forty-seventh sessions on 5–6 May 2021 and 14–16 September 2021, respectively.