

# Conclusions and recommendations from the 19<sup>th</sup> meeting of greenhouse gas inventory lead reviewers

## I. Introduction

1. The 19<sup>th</sup> meeting of greenhouse gas (GHG) inventory lead reviewers (LRs) took place on 2 March and from 14 to 17 March 2022 as a virtual meeting owing to the circumstances related to the coronavirus disease 2019 (COVID-19) pandemic. A total of 53 experts from Parties not included in Annex I to the Convention (non-Annex I Parties) and 70 experts from Parties included in Annex I to the Convention (Annex I Parties) were invited to the meeting. Of the 114 experts who registered for the meeting, 77 attended, of whom 23 were from non-Annex I Parties and 54 were from Annex I Parties. In addition, one co-lead of the technical analysis of biennial update reports and 5 land use, land-use change and forestry (LULUCF) reviewers attended the meeting as observers.

2. Two representatives of the Food and Agriculture Organization of the United Nations (FAO) and two representatives of the European Environment Agency attended the meeting as observers. The LRs noted with appreciation the presentations made by the representatives of FAO on the use of FAO data to support GHG inventory reviews for the agriculture and land use sectors. The LRs highlighted the usefulness of FAO data sources for supporting GHG inventory reviews and encouraged expert review teams (ERTs) to continue using FAO data resources.

3. In accordance with the annex to decision 13/CP.20, the annex to decision 22/CMP.1 in conjunction with decision 4/CMP.11, and annex II to decision 24/CMP.1, the meeting helped to facilitate the work of LRs in fulfilling their task to ensure consistency of GHG inventory reviews across Parties and the quality and objectivity of the technical examinations therein, and in providing suggestions on how to improve the quality, efficiency and consistency of the reviews.<sup>1</sup> In addition, at the meeting the LRs provided guidance on matters such as review tools and procedures.<sup>2</sup> These conclusions and recommendations will be reported to the Subsidiary Body for Scientific and Technological Advice (SBSTA) at its fifty-seventh session (November 2022).<sup>3</sup> Such reports provide the SBSTA with inputs for providing further guidance to the secretariat on selecting experts and coordinating ERTs and the GHG inventory review process.

## II. Organization of the 2022 greenhouse gas inventory review process

4. The LRs took note of the information provided by the secretariat on the plan for organizing the 2022 GHG inventory review cycle and invited the secretariat to proceed with the remaining steps in organizing the 2022 review cycle taking into consideration the conclusions and recommendations outlined in paragraphs 5–8 and 12 below.

5. The LRs noted the continued challenges in organizing and conducting the 2021 review cycle resulting from the COVID-19 pandemic and associated travel restrictions, including the limited availability of experts and the impact of remote working on ERTs and Parties. Despite these challenges, the 2021 review cycle was successfully organized and the review reports are complete and of good quality. The timing of the publication of the reports has not been significantly affected. Although it is expected that the reviews in 2022 will be conducted in person, the LRs encourage the secretariat to continue organizing the reviews taking into consideration the practices implemented during the 2021 review cycle, which significantly contributed to minimizing the impacts of the pandemic and associated travel restrictions and facilitating collaboration across different time zones on the review process. These practices include increasing the time allotted for the reviews, holding sectoral meetings, selecting ERTs with due consideration for regional and gender balance, and prioritizing crucial review

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<sup>1</sup> As per decision 13/CP.20, annex, paras. 42 and 44.

<sup>2</sup> See decision 13/CP.20, annex, para. 48.

<sup>3</sup> As per decisions 13/CP.20, annex, para. 44; and 22/CMP.1, annex, para. 40(a).

tasks. The LRs noted the secretariat’s plan to organize in-person centralized reviews and in-country reviews for the 2022 review cycle. However, noting the uncertainty regarding the evolution of the COVID-19 pandemic and associated travel restrictions, the LRs invited the secretariat to develop contingency plans for holding remote reviews in 2022 to minimize the impacts of any such remote work on the review process, and to implement the contingency plans if necessary.

6. The LRs noted that 2022 is the last review cycle of the second commitment period of the Kyoto Protocol. Therefore, the LRs agreed to encourage ERTs to prioritize assessing the issues in previous reviews that have not yet been addressed by Parties, any issues resulting from recalculations that have changed the emission/removal estimates, and those issues that have implications for the accounting under the Kyoto Protocol, particularly those related to activities under Article 3, paragraphs 3–4, of the Kyoto Protocol (KP-LULUCF). The LRs also agreed to make every effort to guide ERTs during the 2022 review cycle so that they are focused, pragmatic and efficient.

7. The LRs noted that more experts will be required for the 2022 review cycle than for previous years, in particular because all Annex I Parties with commitments under the second commitment period of the Kyoto Protocol have to be reviewed during this cycle and because of the additional tasks related to the full review of KP-LULUCF, both for Parties that have elected annual accounting and those that have elected commitment period accounting. The LRs noted with concern that a lack of sufficient experts to be available for the 2022 review cycle could risk the timely completion of the review process and the quality of the review reports.

8. The LRs reiterated the need for Parties to continue encouraging, supporting, funding and facilitating the participation of their nominated experts in GHG inventory reviews, particularly in remote reviews, to ensure completeness of ERTs, an appropriate balance of expertise in ERTs and the high quality of review reports.

### **III. Training of greenhouse gas inventory review experts in 2021 and future activities**

9. The LRs welcomed the information on training activities undertaken by the secretariat in 2021 and on ongoing and planned training activities in 2022 for review experts for the technical review of GHG inventories of Annex I Parties and for members of ERTs participating in annual reviews under Article 8 of the Kyoto Protocol.

10. The LRs stressed the importance of Parties nominating experts with GHG inventory experience and sectoral technical expertise to the UNFCCC roster of experts, regularly updating their nominations and supporting experts in completing the required training activities and examinations.

### **IV. Improvements to the greenhouse gas inventory virtual team room and review tools**

11. The LRs welcomed the information provided by the secretariat on the existing review tools (e.g. GHG locator, comparison tool, statistical outlier detection tool (SODT)) and communication tools (GHG inventory virtual team room (iVTR)) used in the past and current review cycles. The LRs noted with appreciation the usefulness of the review tools in supporting the review process.

12. The LRs acknowledged the plans envisaged by the secretariat for providing the existing tools without any modifications in the next review cycle. The LRs welcomed the proposal of the secretariat to provide training for experts on existing review and communication tools before the review week or during the kick-off meetings with review experts and to promote the use of the review issues database (RID) module of the iVTR in the next review cycle.

## **V. Improvements to the quality, efficiency and consistency of reviews in accordance with decisions 13/CP.20 and 4/CMP.11**

### **A. Reporting and review of activities under Article 3, paragraphs 3–4, of the Kyoto Protocol in 2022**

13. The LRs welcomed the seminar for LRs and LULUCF reviewers held by the secretariat on 14 March 2022 focusing on the review of KP-LULUCF for the last reporting year of the second commitment period of the Kyoto Protocol. The LRs noted potential challenges for both Parties and reviewers, such as limited time for reviewing KP-LULUCF accounting information for Parties with commitment period accounting, limited time for Parties to address new findings of the ERTs, the large number of issues identified in previous review cycles that have not yet been addressed and the need to ensure consistency in addressing issues of the same nature across Parties.

14. The LRs noted with appreciation that, in the context of the assessment reports for the 2021 review cycle, the secretariat, with the support of a small group of LULUCF experts, prepared a list of KP-LULUCF key checks for Parties to the Kyoto Protocol with quantified emission limitation or reduction commitments, in response to a request by the LRs at their 18<sup>th</sup> meeting.<sup>4</sup> To promote the efficiency of the 2022 review cycle, and in preparing the assessment reports during the early stages of this cycle, the LRs requested the secretariat once more to prepare a list of KP-LULUCF key checks following the Parties' 2022 submissions and to share without delay the results from the key checks with the respective Parties for their comments. To support the ERTs in their activities, the results from the key checks will be provided to ERTs ahead of the review week.

15. The LRs noted that all issues and recommendations for KP-LULUCF, in particular those with impact on accounting, should be resolved within the time frame of the 2022 review process, including any application of adjustments.

16. The LRs encouraged the LULUCF experts to revisit the training programme for members of ERTs participating in annual reviews under Article 8 of the Kyoto Protocol to refresh their knowledge and better prepare them for the 2022 review cycle.<sup>5</sup> The LRs suggested that the materials presented at the seminar for LRs and LULUCF reviewers be used as a basis for a supporting tool to facilitate the review of KP-LULUCF and proposed that the secretariat share the materials with all LRs and LULUCF experts engaged in the 2022 review cycle.

### **B. Improvements to the consistency of reviews**

17. The LRs discussed specific ways of improving the GHG inventory review process on the basis of experience from the 2021 review cycle and the background paper prepared by the secretariat on consistency issues. The LRs agreed on conclusions and recommendations on four consistency issues, consisting of one issue identified during the 2021 review cycle on the review of estimates of harvested wood products (HWP) under the Convention, and three issues identified during the 2020 review cycle that the LRs requested be included for consideration at their 19<sup>th</sup> meeting since they had been unable to complete the consideration of them at their 18<sup>th</sup> meeting.<sup>6</sup> The latter three issues concern the review of technical corrections (TCs) to the forest management reference level (FMRL) during the annual accounting year or commitment period accounting year; the assessment of the application of the insignificance criteria within a given category; and the scope of and approach to the review of the European Union (EU) GHG inventory. Together with the consistency issue

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<sup>4</sup> See para. 17(a) of the conclusions and recommendations from the 18<sup>th</sup> meeting of greenhouse gas inventory lead reviewers. Available at [https://unfccc.int/sites/default/files/resource/Conclusions%20GHG\\_LR%202021.pdf](https://unfccc.int/sites/default/files/resource/Conclusions%20GHG_LR%202021.pdf).

<sup>5</sup> Available at <https://climate.csod.com>.

<sup>6</sup> See para. 13 of the conclusions and recommendations from the 18<sup>th</sup> meeting of greenhouse gas inventory lead reviewers. Available at [https://unfccc.int/sites/default/files/resource/Conclusions%20GHG\\_LR%202021.pdf](https://unfccc.int/sites/default/files/resource/Conclusions%20GHG_LR%202021.pdf).

identified during the 2021 review cycle, these three issues were included in the background paper prepared by the secretariat on consistency issues.

18. The LRs recommended that LRs promote the following guidance and procedures:

(a) Review of the TC to the FMRL during the annual accounting year or commitment period accounting year:

(i) In the case of Parties with annual accounting, the LRs noted that the accounting quantity for KP-LULUCF is calculated on the basis of cumulative emissions and removals, using the most recent inventory data, and that any recalculations of emissions and removals for previous years will be incorporated automatically into the accounting quantity for the current reported year. If the Party recalculates historical data on forest management or forest land remaining forest land used for the calculation of the FMRL without calculating a TC that ensures methodological consistency between the FMRL corrected (FMRL+TC) and FM estimates during the second commitment period of the Kyoto Protocol, the review of the TC and any possible adjustment will take into account the historical years used for the calculation of the FMRL.

(ii) The LRs concluded that, as soon as possible, the ERT must alert the Party concerned of any potential problem identified with the TC and provide the Party with the opportunity to submit additional information or correct the problem. If this is not possible during the review week, the ERT should follow the procedures set out for formulating the Saturday Paper in accordance with the “Guidelines for review under Article 8 of the Kyoto Protocol” and raise a potential problem regarding the TC value, if the change in the value of the adjusted TC (the difference between the adjusted FMRL corrected and the FMRL corrected submitted by the Party) exceeds the thresholds of insignificance (0.05 per cent of total national GHG emissions without LULUCF for the latest reported inventory year, or 500 kt carbon dioxide equivalent).

(iii) If the Party revises its TC estimate before or during the review week to correct the potential problem identified by the ERT, the ERT should request that the Party officially resubmit its complete common reporting format tables containing the revised TC estimates and relevant related information in accordance with the *2013 Revised Supplementary Methods and Good Practice Guidance Arising from the Kyoto Protocol* (Kyoto Protocol Supplement).

(b) Assessment of the application of the insignificance criteria within a given category:

(i) The LRs noted that the insignificance criteria defined in paragraph 37(b) of the “Guidelines for the preparation of national communications by Parties included in Annex I to the Convention, Part I: UNFCCC reporting guidelines on annual greenhouse gas inventories” (UNFCCC Annex I inventory reporting guidelines) apply at the category/subcategory level<sup>7</sup> where the notation key “NE” may be used in the common reporting format tables.

(ii) Where a Party does not estimate emissions for sources within a category/subcategory, the ERT should not include this issue as a potential problem in the Saturday Paper if the change resulting from an adjustment related to this issue at the mandatory category/subcategory level is likely below the thresholds given in paragraph 37(b) of the UNFCCC Annex I inventory reporting guidelines, as provided in paragraph 19 of annex II to decision 4/CMP.11.

(iii) The LRs recalled that at their 16<sup>th</sup> meeting they agreed to use a decision tree that clarifies how the thresholds defined in paragraph 37(b) of the UNFCCC Annex I inventory reporting guidelines should be applied when considering issues for inclusion in the Saturday Paper.<sup>8</sup> The LRs requested the secretariat to revise the

<sup>7</sup> Including categories/subcategories specified by the Party under “other” and carbon pools in the reporting under LULUCF.

<sup>8</sup> See para. 27(a) of the conclusions and recommendations from the 16<sup>th</sup> meeting of greenhouse gas inventory lead reviewers. Available at [https://unfccc.int/sites/default/files/resource/04\\_GHG-LRs-2019-conclusions.pdf](https://unfccc.int/sites/default/files/resource/04_GHG-LRs-2019-conclusions.pdf).

decision tree taking into consideration the conclusions and recommendations at their 18<sup>th</sup> and 19<sup>th</sup> meetings.

(c) Scope of and approach to the review of the EU GHG inventory: The LRs concluded that the conclusions from the 16<sup>th</sup> meeting of LRs on the focus of the EU review,<sup>9</sup> considering elements of the conclusions from the 3<sup>rd</sup> meeting of LRs, should be supplemented with the following recommendations for ERTs:

(i) At the start of the review, the LRs should request the ERT to focus the review on the transparency of the information reported in the EU national inventory report and provide guidance thereon, particularly for key categories identified at the EU level, followed by categories for which recalculations have been performed, and categories that are the subject of recommendations in the previous review report, as well as for findings in the initial assessment and progress in the implementation of planned improvements. The LRs recalled that the EU GHG inventory is compiled from the national GHG inventories of the EU member States, Iceland and the United Kingdom of Great Britain and Northern Ireland<sup>10</sup> and that the ERT should assess whether the EU GHG inventory is compiled in accordance with the UNFCCC Annex I inventory reporting guidelines.

(ii) The LRs should ensure that recommendations in the review report are addressed to the EU, because the inventories of the member States, Iceland and the United Kingdom fall outside the scope of the EU review.

(iii) The LRs noted that the ERT may also consider information on the efforts undertaken at the EU level to address the main issues pertaining to the member States, Iceland and the United Kingdom, as reflected in previous EU review reports.

(d) Review of estimates of HWP under the Convention:

(i) The LRs concluded that, to ensure comparability and accuracy, the ERTs should review the information on the reporting of HWP under the Convention and ensure that Annex I Parties demonstrate that HWP estimates are consistent with the 2006 IPCC Guidelines as implemented through the UNFCCC Annex I inventory reporting guidelines, independently of the fact that for providing information on KP-LULUCF, Annex I Parties that are Parties to the Kyoto Protocol shall also apply the Kyoto Protocol Supplement, as appropriate and in a manner consistent with decision 2/CMP.7, and consistent with the UNFCCC Annex I inventory reporting guidelines.

(ii) In the particular case of HWP reporting under the Convention and in accordance with the 2006 IPCC Guidelines, the ERT should review the related reported information and, if necessary, provide recommendations to ensure that, where the HWP contribution is reported as zero, Parties clearly demonstrate that the annual HWP carbon stock changes in the HWP pool are “insignificant” (the term “insignificant”<sup>11</sup> in this context means that the annual HWP carbon stock change, expressed in units of CO<sub>2</sub>, is less than the size of any key category).

## VI. Other matters

19. On 2 March 2022, the joint opening of the 2022 annual meetings of GHG inventory LRs and LRs for the review of biennial reports and national communications was held to provide an update on the transparency-related outcomes of COP 26 in Glasgow and an overview of the key timelines and deliverables for the transition from the existing measurement, reporting and verification arrangements to the enhanced transparency framework (ETF) under the Paris Agreement. The LRs took note of the recent decisions on the ETF adopted in Glasgow and the secretariat’s updates on and plans for the period of

<sup>9</sup> See para. 27(c) of the conclusions and recommendations from the 16th meeting of greenhouse gas inventory lead reviewers. Available at [https://unfccc.int/sites/default/files/resource/04\\_GHG-LRs-2019-conclusions.pdf](https://unfccc.int/sites/default/files/resource/04_GHG-LRs-2019-conclusions.pdf).

<sup>10</sup> The 2021 EU national inventory report (p.i) indicates that the EU GHG inventory refers to the EU GHG inventory under the UNFCCC (scope: EU and the United Kingdom) and the Kyoto Protocol (scope: EU, Iceland and the United Kingdom).

<sup>11</sup> As defined in the 2006 IPCC Guidelines (vol. 4, chap. 12.2.21, p.12.8).

transition to the ETF and request the secretariat to inform the LRs about the specific plan for the development of training materials for the expert review and the simplified review under the ETF, in order to allow the provision of technical advice in a timely manner.

20. The LRs also took note of the work to be done in preparation for the ETF in the limited time available, including developing the necessary procedures for simplified reviews of national inventory reports. Further, the LRs noted that experience in the review of GHG inventories, including that of GHG inventory LRs, could prove valuable for developing review approaches under the ETF, and requested the secretariat to provide relevant information at the meeting of LRs under the Paris Agreement.

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