



United Nations

FCCC/SBSTA/2013/INF.8



Framework Convention on  
Climate Change

Distr.: General  
30 October 2013

English only

---

**Subsidiary Body for Scientific and Technological Advice**

**Thirty-ninth session**

**Warsaw, 11–16 November 2013**

Item 11(e) of the provisional agenda

**Methodological issues under the Convention**

**Annual report on the technical review of greenhouse gas inventories  
from Parties included in Annex I to the Convention**

**Annual report on the technical review of greenhouse gas  
inventories from Parties included in Annex I to the  
Convention**

**Note by the secretariat**

*Summary*

This report describes activities relating to greenhouse gas (GHG) inventory reviews conducted during the period November 2012 to September 2013 and to activities planned for 2014. It also provides information on the training activities under the Convention and under the Kyoto Protocol, the meeting of inventory lead reviewers, progress made in updating the roster of experts and progress made in the maintenance and development of the GHG information system, including the CRF Reporter.

## Contents

|   | <i>Paragraphs</i> | <i>Page</i> |
|---|-------------------|-------------|
| I. Introduction .....   | 1–5               | 3           |
| A. Mandate .....  | 1–2               | 3           |
| B. Scope of the note .....  | 3–4               | 3           |
| C. Possible action by the Subsidiary Body for Scientific and<br>Technological Advice .....  | 5                 | 3           |
| II. Review activities .....   | 6–19              | 4           |
| A. Individual inventory reviews .....   | 9–16              | 4           |
| B. Other inventory review procedures .....  | 17–19             | 9           |
| III. Meeting of inventory lead reviewers .....  | 20–63             | 9           |
| IV. Roster of experts and availability of nominated experts .....   | 64–71             | 15          |
| V. Training of experts .....  | 72–84             | 17          |
| A. Training programme for greenhouse gas inventory review experts for<br>the technical review of greenhouse gas inventories from Parties included in<br>Annex I to the Convention ..... | 74–79             | 18          |
| B. Training programme for members of expert review teams participating in<br>annual reviews under Article 8 of the Kyoto Protocol .....   | 80–84             | 19          |
| VI. Greenhouse gas information system .....   | 85–92             | 20          |

## **I. Introduction**

### **A. Mandate**

1. The Conference of the Parties (COP), by decision 12/CP.9, requested the secretariat to prepare an annual report on inventory review activities, including any recommendations resulting from meetings of lead reviewers (LRs) participating in the technical review of greenhouse gas (GHG) inventories of Parties included in Annex I to the Convention (Annex I Parties), for consideration by the Subsidiary Body for Scientific and Technological Advice (SBSTA). The COP also requested the secretariat to include in this report information on its inventory review training programme, in particular on examination procedures and on the selection of trainees and instructors.

2. In addition, the SBSTA, at its twenty-fourth session, requested the secretariat to continue to prepare annual reports on inventory review activities, pursuant to decision 12/CP.9, for consideration by the SBSTA, and to include in these reports information on progress made in updating the roster of experts.<sup>1</sup>

### **B. Scope of the note**

3. This report provides information on activities relating to GHG inventory reviews conducted from November 2012 to September 2013 and on planned activities for 2014. It also provides information on the meeting of inventory LR, progress made in updating the roster of experts, training activities under the Convention and under the Kyoto Protocol, and progress made in the development and maintenance of the GHG information system.

4. This report focuses on the elements of the review process that are specific to the Convention and should be read in conjunction with the “Annual report on the technical review of greenhouse gas inventories and other information reported by Parties included in Annex I to the Convention that are also Parties to the Kyoto Protocol under Article 7, paragraph 1, of the Kyoto Protocol”<sup>2</sup> prepared by the secretariat in accordance with decision 22/CMP.1. The review under the Kyoto Protocol encompasses the review of GHG inventories under the Convention in accordance with the “Guidelines for review under Article 8 of the Kyoto Protocol” (hereinafter referred to as the Article 8 review guidelines), therefore the lessons learned and problems encountered in the review process under the Convention, in 2012 and 2013, have many common elements with the reviews under the Kyoto Protocol.

### **C. Possible action by the Subsidiary Body for Scientific and Technological Advice**

5. The SBSTA will be invited to take note of the information contained in this report.

---

<sup>1</sup> FCCC/SBSTA/2006/5, paragraph 95.

<sup>2</sup> FCCC/SBSTA/2013/INF.9.

## II. Review activities

6. The “Guidelines for the technical review of greenhouse gas inventories from Parties included in Annex I to the Convention” (hereinafter referred to as the UNFCCC review guidelines) adopted in 1999 (decision 6/CP.5) and revised in 2002 (decision 19/CP.8) help to ensure that the COP is provided with objective, consistent, transparent, thorough and comprehensive information and technical assessments of GHG inventories from Annex I Parties, that these inventories are consistent with the agreed reporting guidelines and that the quality of these inventories improves over time. In addition, the UNFCCC review guidelines help to ensure that the COP is provided with a technical assessment of the implementation of the commitments of Annex I Parties under Article 4, paragraph 1(a), and Article 12, paragraph 1(a), of the Convention.

7. Following completion of the trial period established in decision 6/CP.5, a technical annual review of the individual national GHG inventory of each Annex I Party has been mandatory since 2003, in accordance with decision 19/CP.8.

8. The GHG inventory review activities – along with some activities for the training of review experts and the organization of LRs’ meetings that until 2009 were funded through voluntary contributions to supplementary funds – are funded from the UNFCCC secretariat core budget. Some other related activities, such as refresher seminars for experienced reviewers, strengthening of the capacity of the secretariat to support review and training activities, and the development of the GHG information system, continue to be funded through voluntary contributions to supplementary funds.

### A. Individual inventory reviews

#### 1. 2012 annual review cycle

9. In 2012, 11 in-country reviews and eight centralized reviews covering 43 Annex I Parties were conducted. Reports of these reviews were published between January 2013 and August 2013. Of the 11 in-country review reports, one was completed one week before the date established in the Article 8 review guidelines for publication<sup>3</sup> and one was completed one week after this date. Two reports were completed seven weeks after the due date for publication. Three reports were completed between 11 and 12 weeks after the due date for publication, three were completed between 18 and 19 weeks after the due date for publication and one was completed 27 weeks after the due date for publication. Of the 11 in-country review reports, three were published within one year after the submission due date.

10. Of the 32 centralized review reports, one was completed five weeks before the date established in the Article 8 review guidelines for publication. Seven reports were completed between one and four weeks after the due date for publication. Five reports were completed between six and eight weeks after the due date for publication and seven reports were completed between 12 and 14 weeks after this date. Nine reports were completed between 19 and 24 weeks after the due date for publication and three reports were completed between 26 and 28 weeks after this date. Of these 32 centralized review reports, 13 were published within one year after the submission due date.

---

<sup>3</sup> Forty of the 44 Annex I Parties are also Parties to the Kyoto Protocol, therefore, for these Parties, the timing for the individual inventory review follows the deadlines established under the Article 8 review guidelines with the exception of Belarus, Kazakhstan and Turkey for which the timing of the individual inventory review follows the deadlines established under the UNFCCC review guidelines.

11. It is important to note the delays in the preparation and publication of review reports observed in the 2010 and 2011 review cycles.<sup>4</sup> However, the efforts to improve timeliness based on the relevant recommendations from the LRs started to show effect: in the 2011 cycle, only eight review reports were published within one year of submission, whereas in 2012 the number of published reports within the one-year timeline increased to 16. However, while the trend is positive, the situation remains not satisfactory and further effort is required, as also noted by the LRs (see chapter III below). The reasons for delays were identified in earlier reports<sup>5</sup> and they still remain valid, indicating the recurrent nature of this problem:

(a) Other, non-review related commitments and work obligations of the experts participating in the reviews;

(b) Lack of availability of experts to participate in a review cycle, despite the large number of experts nominally available in the roster;

(c) Insufficient availability of funding in Annex I Parties to support participation of their experts in the reviews.<sup>6</sup>

## 2. 2013 annual review cycle

12. In 2013, the secretariat received 44 annual submissions<sup>7</sup> from Annex I Parties (see table). In accordance with the UNFCCC review guidelines, the inventory review process is conducted in three stages: initial check, synthesis and assessment (parts I and II), and individual review. The initial check stage provides an immediate quality assurance aimed at verifying the completeness of the inventory submission and the correctness of its format. Status reports for all 44 submissions were prepared and published on the UNFCCC website by 5 June 2013.<sup>8</sup> Part I of the synthesis and assessment report compiles and compares basic inventory information, such as emission trends, activity data and implied emission factors, across Parties and over time and was published on the UNFCCC website on 24 June 2013.<sup>9</sup> Part II provides a preliminary assessment of the inventory of individual Parties and identifies any potential inventory problems, which are then assessed during the individual review stage. Part II of the synthesis and assessment report is not published, but is provided to the expert review teams (ERTs) for further assessment.

13. After each stage of the review process, the Party under review has the opportunity to comment on the different draft reports (status report, synthesis and assessment parts I and

<sup>4</sup> FCCC/SBSTA/2011/INF.13, paragraphs 9 and 10, and FCCC/SBSTA/2012/INF.10, paragraphs 9 and 10.

<sup>5</sup> See FCCC/SBSTA/2012/INF.10, paragraphs 12–14.

<sup>6</sup> In the preparation for the 2013 review cycle the secretariat received 12 requests for exceptional funding from experts nominated by Annex I Parties, with the rationale that their governments did not have sufficient resources to support the review process. Most of these requests were from Parties with economies in transition.

<sup>7</sup> On 17 September 2009, Kazakhstan became a Party included in Annex I to the Convention for the purposes of the Kyoto Protocol, while remaining a Party not included in Annex I to the Convention for the purposes of the Convention. Since Kazakhstan does not have a quantified emission limitation or reduction commitment inscribed in Annex B to the Kyoto Protocol, its 2011 annual submission is being treated as a submission under the Convention. On 26 October 2010, Malta became a Party included in Annex I to the Convention for the purposes of the Convention, in accordance with decision 3/CP.15. On 9 January 2013, Cyprus became a Party included in Annex I to the Convention for the purposes of the Convention, in accordance with decision 10/CP.17.

<sup>8</sup> <[http://unfccc.int/national\\_reports/annex\\_i\\_ghg\\_inventories/inventory\\_review\\_reports/items/7666.php](http://unfccc.int/national_reports/annex_i_ghg_inventories/inventory_review_reports/items/7666.php)>.

<sup>9</sup> <<http://unfccc.int/resource/webdocs/sai/2013.pdf>>.

II, and individual review report); the timelines for providing comments are established in the UNFCCC review guidelines and the Article 8 review guidelines. However, Parties do not always respond to the invitation to provide comments, or provide their comments late, or in successive iterations, which has an impact on the quality and timeliness of the review process, the deadlines for the stages in the review process and the publication of the final reports.

14. For 2013, the secretariat coordinated the review of 11 inventory submissions through in-country reviews, one inventory submission through a desk review, while the others were reviewed through eight centralized reviews (see para. 15 below).

15. In accordance with the UNFCCC review guidelines, the secretariat coordinates the review of national GHG inventories of Annex I Parties. During the individual review, an international ERT conducts a technical review of each inventory. As of 5 October 2013, individual inventory reviews had been conducted for all 44 Annex I Parties, as follows:

(a) In-country reviews were conducted between 2 September and 5 October 2013 for Austria, European Union, Ireland, Italy, Japan, Latvia, Liechtenstein, Monaco, Poland, Slovenia and Sweden. The reports of these reviews are expected to be finalized and published between February and March 2014;

(b) Centralized reviews were organized between 2 and 28 September 2013 in Bonn, Germany, for Australia, Belarus, Belgium, Bulgaria, Canada, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Kazakhstan, Lithuania, Luxembourg, Netherlands, New Zealand, Norway, Portugal, Romania, Russian Federation, Slovakia, Spain, Switzerland, Turkey, Ukraine, United Kingdom of Great Britain and Northern Ireland and United States of America. The reports of these reviews are expected to be finalized and published between January and March 2014;

(c) A desk review was conducted between 16 and 20 September 2013 for Malta.

**Submission of greenhouse gas inventories in accordance with decision 18/CP.8, review dates and status of review reports**

| <i>Annex I Party</i> | <i>NIR and CRF submission dates</i>      | <i>Language of NIR</i> | <i>Status report symbol</i> | <i>Review dates</i>     | <i>Status of review report</i> |
|----------------------|--|------------------------|-----------------------------|-------------------------|--------------------------------|
| Australia            | NIR – 15 Apr. 2013<br>CRF – 15 Apr. 2013 | English                | FCCC/ASR/2013/AUS           | 23–28 Sept. 2013        | In preparation                 |
| Austria              | NIR – 15 Apr. 2013<br>CRF – 15 Apr. 2013 | English                | FCCC/ASR/2013/AUT           | 30 Sept. to 5 Oct. 2013 | In preparation                 |
| Belarus <sup>a</sup> | NIR – 18 Apr. 2013<br>CRF – 18 Apr. 2013 | Russian                | FCCC/ASR/2013/BLR           | 16–21 Sept. 2013        | In preparation                 |
| Belgium              | NIR – 15 Apr. 2013<br>CRF – 15 Apr. 2013 | English                | FCCC/ASR/2013/BEL           | 23–28 Sept. 2013        | In preparation                 |
| Bulgaria             | NIR – 15 Apr. 2013<br>CRF – 15 Apr. 2013 | English                | FCCC/ASR/2013/BGR           | 9–14 Sept. 2013         | In preparation                 |
| Canada               | NIR – 15 Apr. 2013<br>CRF – 15 Apr. 2013 | English                | FCCC/ASR/2013/CAN           | 23–28 Sept. 2013        | In preparation                 |
| Croatia              | NIR – 15 Apr. 2013<br>CRF – 15 Apr. 2013 | English                | FCCC/ASR/2013/HRV           | 16–21 Sept. 2013        | In preparation                 |
| Cyprus               | NIR – 11 Apr. 2013                       | English                | FCCC/ASR/2013/CYP           | 23–28 Sept. 2013        | In preparation                 |

| <i>Annex I Party</i>    | <i>NIR and CRF submission dates</i>      | <i>Language of NIR</i> | <i>Status report symbol</i> | <i>Review dates</i>     | <i>Status of review report</i> |
|-------------------------|--|------------------------|-----------------------------|-------------------------|--------------------------------|
|                         | CRF – 11 Apr. 2013                       |                        |                             |                         |                                |
| Czech Republic          | NIR – 15 Apr. 2013<br>CRF – 15 Apr. 2013 | English                | FCCC/ASR/2013/CZE           | 2–7 Sept. 2013          | In preparation                 |
| Denmark                 | NIR – 15 Apr. 2013<br>CRF – 15 Apr. 2013 | English                | FCCC/ASR/2013/DNK           | 16–21 Sept. 2013        | In preparation                 |
| Estonia                 | NIR – 15 Apr. 2013<br>CRF – 15 Apr. 2013 | English                | FCCC/ASR/2013/EST           | 2–7 Sept. 2013          | In preparation                 |
| European Union          | NIR – 15 Apr. 2013<br>CRF – 15 Apr. 2013 | English                | FCCC/ASR/2013/EU            | 30 Sept. to 5 Oct. 2013 | In preparation                 |
| Finland                 | NIR – 15 Apr. 2013<br>CRF – 15 Apr. 2013 | English                | FCCC/ASR/2013/FIN           | 2–7 Sept. 2013          | In preparation                 |
| France                  | NIR – 9 Apr. 2013<br>CRF – 9 Apr. 2013   | French                 | FCCC/ASR/2013/FRA           | 23–28 Sept. 2013        | In preparation                 |
| Germany                 | NIR – 15 Apr. 2013<br>CRF – 11 Apr. 2013 | English                | FCCC/ASR/2013/DEU           | 9–14 Sept. 2013         | In preparation                 |
| Greece                  | NIR – 16 Apr. 2013<br>CRF – 15 Apr. 2013 | English                | FCCC/ASR/2013/GRC           | 16–21 Sept. 2013        | In preparation                 |
| Hungary                 | NIR – 15 Apr. 2013<br>CRF – 15 Apr. 2013 | English                | FCCC/ASR/2013/HUN           | 23–28 Sept. 2013        | In preparation                 |
| Iceland                 | NIR – 15 Apr. 2013<br>CRF – 15 Apr. 2013 | English                | FCCC/ASR/2013/ISL           | 9–14 Sept. 2013         | In preparation                 |
| Ireland                 | NIR – 15 Apr. 2013<br>CRF – 15 Apr. 2013 | English                | FCCC/ASR/2013/IRL           | 9–14 Sept. 2013         | In preparation                 |
| Italy                   | NIR – 15 Apr. 2013<br>CRF – 16 Apr. 2013 | English                | FCCC/ASR/2013/ITA           | 30 Sept. to 5 Oct. 2013 | In preparation                 |
| Japan                   | NIR – 12 Apr. 2013<br>CRF – 12 Apr. 2013 | English                | FCCC/ASR/2013/JPN           | 30 Sept. to 5 Oct. 2013 | In preparation                 |
| Kazakhstan <sup>b</sup> | NIR – 15 Apr. 2013<br>CRF – 15 Apr. 2013 | Russian                | FCCC/ASR/2013/KAZ           | 9–14 Sept. 2013         | In preparation                 |
| Latvia                  | NIR – 15 Apr. 2013<br>CRF – 15 Apr. 2013 | English                | FCCC/ASR/2013/LVA           | 16–21 Sept. 2013        | In preparation                 |
| Liechtenstein           | NIR – 15 Apr. 2013<br>CRF – 15 Apr. 2013 | English                | FCCC/ASR/2013/LIE           | 2–6 Sept. 2013          | In preparation                 |
| Lithuania               | NIR – 15 Apr. 2013<br>CRF – 15 Apr. 2013 | English                | FCCC/ASR/2013/LTU           | 23–28 Sept. 2013        | In preparation                 |
| Luxembourg              | NIR – 15 Apr. 2013<br>CRF – 15 Apr. 2013 | English                | FCCC/ASR/2013/LUX           | 9–14 Sept. 2013         | In preparation                 |
| Malta                   | NIR – 15 Apr. 2013<br>CRF – 12 Apr. 2013 | English                | FCCC/ASR/2013/MLT           | 16–20 Sept. 2013        | In preparation                 |
| Monaco                  | NIR – 15 Apr. 2013                       | French                 | FCCC/ASR/2013/MCO           | 16–20 Sept. 2013        | In preparation                 |

| <i>Annex I Party</i>                                 | <i>NIR and CRF submission dates</i>      | <i>Language of NIR</i> | <i>Status report symbol</i> | <i>Review dates</i> | <i>Status of review report</i> |
|--|--|------------------------|-----------------------------|---------------------|--------------------------------|
|  | CRF – 9 Apr. 2013                        |                        |                             |                     |                                |
| Netherlands  | NIR – 15 Apr. 2013<br>CRF – 15 Apr. 2013 | English                | FCCC/ASR/2013/NLD           | 9–14 Sept. 2013     | In preparation                 |
| New Zealand  | NIR – 12 Apr. 2013<br>CRF – 12 Apr. 2013 | English                | FCCC/ASR/2013/NZL           | 2–7 Sept. 2013      | In preparation                 |
| Norway   | NIR – 12 Apr. 2013<br>CRF – 12 Apr. 2013 | English                | FCCC/ASR/2013/NOR           | 23–28 Sept. 2013    | In preparation                 |
| Poland   | NIR – 12 Apr. 2013<br>CRF – 12 Apr. 2013 | English                | FCCC/ASR/2013/POL           | 9–14 Sept. 2013     | In preparation                 |
| Portugal   | NIR – 15 Apr. 2013<br>CRF – 15 Apr. 2013 | English                | FCCC/ASR/2013/PRT           | 16–21 Sept. 2013    | In preparation                 |
| Romania  | NIR – 12 Apr. 2013<br>CRF – 12 Apr. 2013 | English                | FCCC/ASR/2013/ROU           | 2–7 Sept. 2013      | In preparation                 |
| Russian Federation                                   | NIR – 23 May 2013<br>CRF – 13 Apr. 2013  | Russian                | FCCC/ASR/2013/RUS           | 16–21 Sept. 2013    | In preparation                 |
| Slovakia   | NIR – 15 Apr. 2013<br>CRF – 15 Apr. 2013 | English                | FCCC/ASR/2013/SVK           | 2–7 Sept. 2013      | In preparation                 |
| Slovenia   | NIR – 15 Apr. 2013<br>CRF – 11 Apr. 2013 | English                | FCCC/ASR/2013/SVN           | 16–21 Sept. 2013    | In preparation                 |
| Spain  | NIR – 15 Apr. 2013<br>CRF – 15 Apr. 2013 | Spanish                | FCCC/ASR/2013/ESP           | 16–21 Sept. 2013    | In preparation                 |
| Sweden   | NIR – 12 Apr. 2013<br>CRF – 12 Apr. 2013 | English                | FCCC/ASR/2013/SWE           | 2–7 Sept. 2013      | In preparation                 |
| Switzerland  | NIR – 15 Apr. 2013<br>CRF – 15 Apr. 2013 | English                | FCCC/ASR/2013/CHE           | 2–7 Sept. 2013      | In preparation                 |
| Turkey <sup>c</sup>                                  | NIR – 15 Apr. 2013<br>CRF – 12 Apr. 2013 | English                | FCCC/ASR/2013/TUR           | 16–21 Sept. 2013    | In preparation                 |
| Ukraine  | NIR – 15 Apr. 2013<br>CRF – 15 Apr. 2013 | Russian                | FCCC/ASR/2013/UKR           | 9–14 Sept. 2013     | In preparation                 |
| United Kingdom of Great Britain and Northern Ireland | NIR – 15 Apr. 2013<br>CRF – 15 Apr. 2013 | English                | FCCC/ASR/2013/GBR           | 9–14 Sept. 2013     | In preparation                 |
| United States of America                             | NIR – 12 Apr. 2013<br>CRF – 12 Apr. 2013 | English                | FCCC/ASR/2013/USA           | 2–7 Sept. 2013      | In preparation                 |

*Abbreviations:* CRF = common reporting format, NIR = national inventory report.

<sup>a</sup> Belarus has indicated explicitly that its 2013 annual submission is made under the Convention only.

<sup>b</sup> Kazakhstan is a Party included in Annex I for the purposes of the Kyoto Protocol. Since Kazakhstan does not have a quantified emission limitation or reduction commitment inscribed in Annex B to the Kyoto Protocol, its 2013 annual submission is being treated as a submission under the Convention.

<sup>c</sup> Turkey indicated that the 2013 annual submission is made under both the Convention and the Kyoto Protocol.



16. It is too early to draw any conclusions on the timeliness of the reviews conducted in 2013, as the review reports are in preparation. The secretariat will make every effort to further improve the timeliness of the review reports while retaining their quality at the level required.

## **B. Other inventory review procedures**

17. In accordance with decision 12/CP.9, the secretariat developed and put in place procedures to implement the code of practice for the treatment of confidential information during the inventory review. These procedures cover submission, processing and handling by the secretariat of any information designated as confidential by an Annex I Party and the granting of access to such information by experts.

18. During in-country reviews, Parties often provide the review teams with access to confidential information. This is possible as the reviews are conducted in the countries and thus the Parties' own procedures on how to share confidential information with the review teams can be followed. During the 2013 reviews, 12 Parties under centralized review and five Parties under in-country review submitted to the secretariat information designated as confidential. There has been a tendency by some Parties to increase the number of categories considered as confidential, often referring to national laws and regulations on the confidentiality of the information. The absence of the submission of information that clarifies emission estimates for these categories reduces the transparency of the inventories and makes the review of this information during centralized reviews very difficult.

19. Decision 12/CP.9 also requires that all members of ERTs sign an agreement for expert review services, which specifies the responsibilities, expected time commitment and appropriate conduct for ERT members, in particular with respect to the protection of confidential inventory information. All experts participating in the inventory reviews from 2004 onwards have signed this agreement, and this practice will be continued in the future.

## **III. Meeting of inventory lead reviewers**

20. The UNFCCC review guidelines require that ERTs be led by two experts with substantial inventory review experience, who are nominated as LRs for an individual review process. For each ERT, one LR should be from a Party not included in Annex I to the Convention (non-Annex I Party) and the other from an Annex I Party. LRs have a special role in guiding the review teams to ensure the consistency, quality and objectivity of the reviews. Recognizing this role, the COP, by decision 12/CP.9, requested the secretariat to organize meetings of LRs to promote a common approach by ERTs to methodological and procedural issues encountered in the inventory reviews, and to make recommendations to the secretariat on ways to further improve the effectiveness and efficiency of the review process.

21. LRs have a critical role in the review process, in which they ensure the consistency, quality and objectivity of the reviews in accordance with the requirements of the UNFCCC review guidelines. The annual meetings of the LRs have, to date, helped in fulfilling this role. The most recent meeting of inventory LRs (10<sup>th</sup>) took place in Bonn on 18–20 March 2013. Seventy-two experts, 34 from non-Annex I Parties and 38 from Annex I Parties, were invited to the meeting, which was attended by only 47 experts, 24 from non-Annex I Parties and 23 from Annex I Parties. In addition, two members of the enforcement branch of the Compliance Committee and one representative of the European Union attended the meeting as observers.

22. In addition, the secretariat organized a half-day refresher seminar for experienced experts on 18 March 2012, before the 10<sup>th</sup> meeting of LRs, on the Stepwise Guide to inventory reviews and best practices for the review process. All the experienced experts invited to the 10<sup>th</sup> meeting of LRs were also invited to the refresher seminar, which was attended by 47 experts, 24 from non-Annex I Parties and 23 from Annex I Parties.

23. The 10<sup>th</sup> meeting of LRs addressed both procedural and technical issues relating to the annual review of GHG inventories of Annex I Parties and similar reviews under the Kyoto Protocol. The issues addressed by the LRs related to reviews under the Convention in accordance with decision 19/CP.8 are presented below.

#### **1. Statistics and follow-up to the 9<sup>th</sup> lead reviewers' meeting**

24. The LRs noted, as at the 8<sup>th</sup> and 9<sup>th</sup> meetings of LRs, that there is a need to continue to improve the efficiency and timeliness of the review process. The starting point for improving the efficiency is for the secretariat and the ERTs, led by the LRs, to conduct better and earlier planning of and preparation for the reviews. In addition, the LRs recognized that improving the work of the ERTs before the review week, including improved communication between the ERTs and the Parties, could also help to improve timeliness and efficiency.

25. The LRs also recognized that there are constraints affecting the review process, including the limited number of experts and secretariat staff participating, the limited time available for the reviews and limited funding. Improving the review process, including the drafting of the review reports, to accommodate those constraints would have a positive impact on the efficiency and timeliness of the process.

26. The LRs welcomed the increase in the number of experts participating in the 2012 review cycle. Compared with the 2011 review cycle, in which 126 experts participated in the review activities, the number of participating experts increased to 157.

27. The LRs noted that the increase in the number of participating experts was especially marked in relation to the centralized reviews, with the result that all of the ERTs involved in centralized reviews in the 2012 review cycle were complete, in the sense that for each review there were at least two experts for each sector. However, they also noted that there were incomplete teams conducting some in-country reviews and that some reviewers participated in more than one review.

28. The LRs further noted that the 38 new experts that participated in the reviews in 2012 constituted one quarter of the total participating experts. The LRs recognized that they should provide important support to the new reviewers, but also recognized that their dual role as LRs and experts, especially if not acting as generalists, leaves limited time to coach the new experts.

29. The LRs also recognized that the centralized reviews would benefit from an increased number of participating experts and from limiting centralized reviews to four Parties. This could potentially decrease the workload of each expert, improve the integration of new experts and improve quality and timeliness. The LRs requested the secretariat and Parties to further increase their efforts to ensure that a sufficient number of review experts participate in the 2013 review cycle.

#### **2. Consistency and timeliness of reviews**

30. The LRs welcomed the information provided by the secretariat on the analysis of the consistency of the reviews under the Kyoto Protocol during the 2012 review cycle.

31. They recommended that the secretariat enhance the guidance provided to the ERTs, including those performing in-country reviews, such as by providing explanations in the

template for the annual review report and by making presentations at the beginning of the review week clarifying the types of issues that should be included in the review report and in the list of potential problems and further questions raised by the ERT during the review week.

32. The LRs noted with concern that as at 20 March 2013 there were only six published review reports. In order for Parties to have enough time to implement the recommendations made in the review reports, the LRs agreed to improve communication with the Parties having centralized reviews by informing them of the provisional main findings and recommendations at the end of the review week.

### **3. Planning and preparation for the 2013 review cycle**

33. The LRs also noted that there is limited time available during centralized reviews to analyse each Party. Therefore, they reiterated the recommendation made at their 8<sup>th</sup> meeting that, during centralized reviews, special attention should be paid, by review experts and LRs, to following up on the recommendations made in previous review reports and on significant recalculations, while still ensuring that all review requirements are covered during the review.

34. The LRs stressed the need for good preparation by review experts prior to the actual review week and the role of LRs in such good preparation. This should be further clarified within the Stepwise Guide for Managing GHG Inventory Reviews for Annex I Parties (hereinafter referred to as the Stepwise Guide), including a timeline and tasks for the preparation prior to the actual review week.

35. The LRs agreed to continue their practice of the past two years with regard to the preparation of draft status reports. This means that they provide comments on the draft status report prepared by the secretariat within one week of receipt of the draft.

36. The LRs endorsed the overall approach to the annual reviews in 2013, as presented by the secretariat during the meeting, including the prioritization for an in-country review of all Annex I Parties that are also Parties to the Kyoto Protocol that have not yet had an in-country review during the first commitment period.

37. The LRs agreed to the procedure presented by the secretariat for the preparation of the annual report by the LRs to the SBSTA in 2013, which is the same as that followed in 2010–2012, including suggestions on how to improve the review process in accordance with the “Guidelines for review under Article 8 of the Kyoto Protocol”.

### **4. Improvements in documents and tools**

#### *Annual review report template*

38. The LRs noted with concern the length of time that it takes to send the draft review report to the Party and to publish the final annual review report. With this in mind, the LRs agreed to modify the annual review report template, along with the quality assurance/quality control (QA/QC) checklists, in order to improve the efficiency and timeliness of the completion of the annual review process. Timeliness in the 2013 review cycle is particularly important, as this will be the last annual submission reviewed prior to the final annual submission within the first commitment period.

39. The LRs requested the secretariat, in cooperation with a small group of LRs, to improve the annual review report template. They agreed that, in identifying possible improvements to the annual review report template, the decisions of the COP and the Conference of the Parties serving as the meeting of the Parties to the Kyoto Protocol (CMP) should be referred to and the required elements of the annual review report identified, while recognizing the needs and requirements of the users reading the annual review reports. The

LRs recommended that the secretariat and the working group explore the possibility of using checklists and tables in the annual review report template.

40. The LR welcomed the distribution of the annual review report template to the ERTs one week prior to the 2012 annual review cycle and recommended that the secretariat continue this practice for future reviews.

## **5. Review tools**

41. The LR welcomed the work undertaken by the secretariat to further develop the review tools for the review cycle in 2012. They noted that there is no need to develop new tools for the 2013 review cycle and that the focus should be on the utilization of the review tools during the review process to the extent possible. The LR also noted that the review tools facilitate and increase the consistency of the annual reviews, and that providing feedback on the review tools is crucial for the further development of the tools. The LR also welcomed the presentation provided during the LR's meeting on review tools at each review stage, which made the function and aim of the review tools at the different review stages clear to them. They recommended that the LR of each ERT, with the help of the secretariat, provide further guidance to the ERT during the review week and help the team to use the tools effectively.

42. The LR requested the secretariat to prepare guidance for the ERTs on the review tools by providing a short description of their use, aiming for the full utilization of the review tools by the ERTs, including some examples of using the review tools, before, during and after the review week, and encouraged the secretariat to include this guidance in an annex to the Stepwise Guide.

43. The LR welcomed the secretariat's improvement of the introductory presentation to the ERTs performing centralized reviews, including specific guidance on the review tools available to facilitate the review process. The LR also welcomed the secretariat's provision of a tool that examined the notation keys in each inventory. They considered that the further consolidation, and better knowledge and use, of these tools could improve the efficiency of the review process, and therefore encouraged the secretariat to brief all ERTs on the review tools.

## **6. Virtual Team Room**

44. The LR noted the ongoing work being undertaken by the secretariat on the development of the Inventory Virtual Team Room (I-VTR) to support the review of the information on annual GHG inventories and welcomed the achievements made in concluding the Reference Library and the ERT Workspace components of the I-VTR, which were presented during the LR's meeting. The LR also noted the results of testing these components during the 2012 review cycle, which show that the tool could be a valuable resource in supporting the review, management and recording of the information generated in the process, increasing the traceability and safety of the review materials, and encouraged the secretariat, for the next review cycle, to promote the Reference Library and the ERT Workspace as the major source of information for all centralized reviews and to test it in a limited number of in-country reviews.

45. The LR also encouraged the secretariat to continue to undertake work on the development of the remaining components of the I-VTR, the review issues tracking system and the document management system, and to test them in a limited number of reviews as soon as they are available.

## **7. Suggested further improvements to the review process**

46. The LRs took note of the draft decision trees that were presented during the refresher seminar on good practice approaches to inventory issues, which was held in 2012 back to back with the 9<sup>th</sup> meeting of LRs.

## **8. Stepwise Guide**

47. The LRs welcomed the completion of the Stepwise Guide for trial use during the 2012 review cycle. They noted that the Stepwise Guide could be beneficial for LRs, ERTs and new reviewers to provide an overview of the timelines and tasks before, during and after the review week, thereby facilitating better time management of the reviews. They also noted that the Stepwise Guide could help to integrate new review experts by clarifying the roles and expectations during each phase of the process. The LRs encouraged the secretariat to update the Stepwise Guide on the basis of feedback received during the trial use in 2012 and during the 10<sup>th</sup> meeting of LRs and to distribute it with the review materials at least four weeks prior to the start of the review week.

48. The LRs welcomed the inclusion of the workflow and QA/QC checklists in the Stepwise Guide as a means of improving the efficiency and timeliness of the review process.

49. They noted that use of the QA/QC checklists, in particular in combination with the annual review report template, enhances the technical quality, accuracy, consistency and timeliness of the draft annual review reports.

## **9. Training of review experts**

50. The LRs welcomed the information on the training activities in 2012, and ongoing and planned training activities in 2013, including the organization of an annual training seminar in April 2013, the refresher seminar for experienced reviewers and a regional training seminar, subject to the availability of resources, in the second half of the year. They requested the secretariat to continue organizing regional training seminars and refresher seminars, subject to the availability of resources, and encouraged Parties to provide such resources.

51. The LRs participated in the refresher seminar held on 18 March 2013, in conjunction with the 10<sup>th</sup> meeting of LRs, which focused on the Stepwise Guide to inventory reviews and best practices for the review process. They noted that the seminar helped to refresh the knowledge and best practices needed for the different steps of the review process and to enhance the common understanding of how to implement these review steps within the framework of the Stepwise Guide developed by the secretariat.

52. The LRs also noted the need to increase the number of review experts who actively participate in the review process, in order to ensure the completeness and balance of expertise of the ERTs, in particular by increasing the participation of review experts from non-Annex I Parties. They reiterated the need for the Parties nominating experts to the UNFCCC roster of experts to ensure that the experts can devote enough time to studying the required training courses and are fully available during the complete review process. The LRs requested the secretariat to continue reminding all Parties once a year to update the UNFCCC roster of experts on a regular basis and also reiterated the need for Parties to continue nominating experts to the roster, in particular experts from non-Annex I Parties. The LRs also requested the secretariat to provide Parties with summary information on the required profile of experts to be nominated to the roster, in order to help Parties to identify experts who have the sufficient skills to be trained as review experts and to join future ERTs.

53. The LRs noted the need to update and supplement, in the future, the training programme for the review of GHG inventories from Annex I Parties, in order to meet the requirements of review experts arising from the adoption of the revised “Guidelines for the preparation of national communications by Parties included in Annex I to the Convention, Part I: UNFCCC reporting guidelines on annual inventories” (hereinafter referred to as the UNFCCC reporting guidelines), the use of the *2006 IPCC Guidelines for National Greenhouse Gas Inventories* and the future revised UNFCCC review guidelines launched under the SBSTA work programme on the revision of the guidelines for the review of biennial reports and national communications, including national GHG inventory reviews, for developed country Parties. The LRs also noted the need to supplement and update the current training programme for reviews under the Kyoto Protocol with new or updated courses in the light of the implementation of the second commitment period of the Kyoto Protocol, particularly related to supplementary Intergovernmental Panel on Climate Change (IPCC) guidance. The LRs further noted that the updating and supplementing of the training programmes should address the training needs of both new and experienced experts.

54. The LRs noted the need for Parties to support the work on updating and supplementing the current training programmes, including possible contributions through the direct support of experienced qualified experts, with the purpose of retaining the existing knowledge and experience of the experts currently participating in the reviews.

#### **10. Options for improving the cost-effectiveness, efficiency and practicality of the review process**

55. The SBSTA requested the LRs to discuss, at their meeting in 2013, options for improving the cost-effectiveness, efficiency and practicality of the review process, and requested the secretariat to make the outcome of their discussions available as input to the discussions at SBSTA 38 on the revision of the guidelines for the review of national communications, biennial reports and national GHG inventories.

56. The LRs noted that the implementation of the existing review process of national communications and national GHG inventories is very resource-intensive and has resulted in increasing pressure on Parties, experts and the secretariat in recent years. They also noted that the newly established international assessment and review (IAR) process for developed countries, which will be launched in early 2014, will significantly increase the volume of work.

57. The LRs agreed on the need to have a cost-effective, efficient and practical review process that does not impose an excessive burden on Parties, experts or the secretariat. They discussed a range of options for addressing that need, including combining different types of review and modifying their format and frequency.

58. On consideration of the issue outlined in decision 2/CP.17, annex II, paragraph 6, the LRs recommended that the reviews of biennial reports should not be conducted in conjunction with the GHG inventory reviews, because of the different timing and content of the reports.

59. The LRs considered the options of professionalizing the review process by introducing a service fee system and establishing a standing group of experts at the secretariat, and concluded that these options should be further explored. They noted that introducing a service fee may increase the availability of experts but not necessarily improve the quality and timeliness of the reviews. The LRs agreed that the option of supplementing the current ERTs with a standing group of experts or other hybrid solutions should be further explored.

60. Based on the experiences of the LRs with reviews, they noted that there is value in providing training to experts on the IAR process.

61. The LRs recommended that Parties update and expand the UNFCCC roster of experts in order to meet the particular needs for expertise of the upcoming IAR process.

#### **11. Development of the new CRF Reporter**

62. The LRs welcomed the information on the development of the new CRF Reporter software and welcomed the demonstration of the CRF Reporter software as deployed to Annex I Parties for testing on 22 October 2012. The LRs noted that one of the most important features of the new software is the possibility of importing existing data into the software. Without that prerequisite, it would be difficult to test the CRF Reporter software. The LRs also noted that the deadline for submissions of views on experiences with the UNFCCC reporting guidelines and with the updated CRF Reporter is 3 May 2013 and encouraged Annex I Parties to submit their views.

#### **12. Financial implications**

63. The LRs noted that supplementary funding is needed for some of the secretariat's activities to support the review process and emphasized the importance of Parties supporting such work with financial resources. This relates to the following:

- (a) I-VTR development;
- (b) CRF Reporter development.

### **IV. Roster of experts and availability of nominated experts**

64. As of 13 September 2013, the roster of experts contained 904 GHG inventory experts, 431 from non-Annex I Parties and 473 from Annex I Parties. From October 2012 to 13 September 2013, 96 new experts were nominated to the roster, 37 from non-Annex I Parties and 59 from Annex I Parties. During this period, some Parties updated their part of the roster and deleted obsolete records; however, the roster still contains a great deal of unrevised data.

65. As a result, a limited number of experts listed on the roster participate currently in the review process. In 2013, a total of 175 individuals from 69 different Parties served as inventory experts on ERTs. Of these experts, 67 were from non-Annex I Parties, 27 were from Annex I Parties with economies in transition and 78 were from other Annex I Parties. Owing to the unavailability of experts to participate in a review, some experts had to participate in two reviews (five experts from non-Annex I Parties and three from Annex I Parties) and in three cases they served also as LRs in one of the reviews, or in two cases the experts served as LRs in two reviews. As indicated above, one of the main reasons for the significant discrepancy between the number of nominated experts and the number of those participating in reviews is that only a few Parties regularly update the list of experts nominated by them to reflect, inter alia, the fact that many of the experts on the roster have moved to other positions or have retired and are no longer available to participate in the review process. Another important reason is the significant workload of the nominated experts at their respective offices added to their participation in international climate change negotiations and activities not allowing most of them to devote time to the annual review activities. This problem has been exacerbated in recent years and seems unlikely to be solved soon with the continuing increase in climate change negotiations and activities. Another reason is that some experts nominated to the roster have not yet taken the mandatory training courses, or have not passed all the relevant examinations, both the

training programme for the Convention and the training programme for the Kyoto Protocol. In conclusion, this last issue means that currently the roster from which the secretariat could select eligible experts to participate in reviews contains potentially 362 experts (see para. 11(b) above).

66. In 2013, the secretariat sent 288 letters of invitation to participate in reviews to 256 experts in total; of these, 44 experts declined to participate, informing the secretariat of their unavailability owing to previous commitments, heavy workloads, lack of financial resources or other reasons. In addition, 27 experts informed the secretariat of their availability on dates different to the scheduled review dates to which they had been invited or had indicated their availability to participate only on particular dates, making it necessary to change their participation to other reviews, both in-country and centralized, and to find experts on those reviews willing and available to facilitate such changes. For example, for one centralized review, the secretariat invited 23 experts in total; of these, six declined and one informed the secretariat of the willingness to participate in reviews on different dates; finally, 13 experts were available to participate in that review. Similar critical cases occurred in another two in-country reviews.

67. In addition, some experts declined their participation in the reviews at very short notice. Some of these experts agreed to perform their tasks as desk reviewers. In one in-country review, it was not possible to find a replacement or an expert to perform the review task as a desk reviewer. This meant that one of the experts in that in-country review team had to review one additional sector. Overall, these issues affected negatively, and increased the difficulty of, the planning and conformity of ERTs by the secretariat for the 2013 review cycle.

68. At the same time, these issues impacted the completeness of the ERTs and their proper geographical balance. In another example of a centralized review, the secretariat invited 21 experts in total; of these, three declined and five informed the secretariat of their willingness to participate in reviews on different dates; finally, 13 experts were available to participate in that review, where two of them were desk reviewers, instead of the expected 14 ERT members, including an additional land use, land-use change and forestry (LULUCF) expert. Overall, one in-country review and one centralized review had to conduct the review tasks with incomplete teams, not taking into account that one in-country review and two centralized reviews had desk reviewers performing the review tasks during the review week (see para. 67 above). Taking into account that the continued limited availability of experts could influence the quality and level of detail of the reviews, particularly for complex sectors, the secretariat intends to continue early-start planning for 2014 reviews and issue an earlier call for the availability of experts, as it was made for the 2013 review cycle. However, such measures can help only if experts are available and respond positively to invitations on time, and if Parties place more attention on this issue, possibly taking further actions such as ensuring that nominated experts are fully available for reviews and receive the necessary support and time for the review activities from their governments and institutions.

69. For centralized reviews, the secretariat usually invites two review experts to cover a sector, except in the case of the energy sector where three experts are usually invited as this is the largest sector and one of the most complex in the inventories. In order to incorporate new reviewers to the ERT, the secretariat invited four energy experts to each centralized review. This worked for six of the eight centralized reviews, for which four energy-sector experts participated. The review for the LULUCF sector is also complex and demanding. It can be beneficial to have three experts for this sector in centralized reviews, but the number of experts available did not allow for this in 2013 and there were three LULUCF experts in only three centralized reviews. At the same time, the secretariat was able to secure only one LULUCF expert for all 11 in-country reviews.



70. In 2013, 34 new experts, who had taken the training courses and passed the examination, participated in all eight centralized reviews and in two in-country reviews, in most of the cases assuming full responsibility as reviewers.

71. The secretariat continued to make an online form available on the UNFCCC website<sup>10</sup> to facilitate the nomination of experts to the roster and the updating of the list of nominees by a Party. At the same time, it continued to process the nominations of experts received via e-mail and fax to further facilitate nominations by Parties. The secretariat also continued to invite Parties to update the roster and to nominate new experts periodically and has improved the accessibility and user-friendliness of the training programmes on the UNFCCC website.<sup>11</sup> During 2010 and 2011, this important task was performed twice a year and, in 2012, three times. In 2013, through individual letters the secretariat two times invited Parties to update the roster and to nominate new experts in connection with the organizing of training courses for new review experts of GHG inventories, ensuring that all Parties without experts participating in the review process were invited. However, more importantly, the secretariat, at the beginning of September 2013, in accordance with the request of SBSTA 38,<sup>12</sup> revised and updated the nomination form for the UNFCCC roster of experts to enable the nomination of experts for participation in the various review processes conducted by the secretariat, informed all Parties on these changes and invited Parties to update and expand the UNFCCC roster of experts, including a request to nominate experts for the new process of reviews of biennial reports, and remove those experts who are no longer available for participation in the review activities organized by the secretariat, by September 2013.

## V. Training of experts

72. Training activities are of crucial importance for ensuring the required quality and consistency of the review process. This is particularly true for experts from non-Annex I Parties, who need to further strengthen their expertise as they usually do not work on GHG inventories on a daily basis. In addition, they are not involved in activities of Annex I Parties regarding the reporting of supplementary information under Article 7, paragraph 1, of the Kyoto Protocol, related for example to emissions and removals from activities under Article 3, paragraphs 3 and 4, of the Kyoto Protocol, information on accounting of Kyoto Protocol units, the national systems and the national registries and their changes, and information on the minimization of adverse impacts in accordance with Article 3, paragraph 14, of the Kyoto Protocol, which are subject to annual reviews. One of the positive impacts of the training programmes is that experts participating in training activities and subsequent reviews could use the experience gained in these activities to improve the quality of their national inventories.

73. The secretariat continues to strongly encourage all experts on the UNFCCC roster of experts nominated for inventory review activities to take the relevant Convention and Kyoto Protocol training courses and examinations, because only experts that pass these examinations are able to participate in the reviews under the Convention and its Kyoto Protocol. The secretariat also facilitates the process of access by experts to the relevant training programmes, periodically invites Parties to nominate new experts for the training programmes, and provides relevant information and updates on the organization of the

---

<sup>10</sup> <[http://unfccc.int/files/ghg\\_data/application/msword/roster nomination\\_2013\\_new.doc](http://unfccc.int/files/ghg_data/application/msword/roster nomination_2013_new.doc)>.

<sup>11</sup> <[http://unfccc.int/national\\_reports/annex\\_i\\_ghg\\_inventories/inventory\\_review\\_training/items/2763.php](http://unfccc.int/national_reports/annex_i_ghg_inventories/inventory_review_training/items/2763.php)>.

<sup>12</sup> FCCC/SBSTA/2013/3, paragraph 98.

training courses on the UNFCCC website<sup>13</sup> and through other electronic means, such as the secretariat's newsletter. In 2013, the secretariat contacted almost all experts nominated to the UNFCCC roster of experts since July 2011 inviting to participate in relevant training courses and examinations. In many cases, the experts have not responded or their contact details are no longer valid.

#### **A. Training programme for greenhouse gas inventory review experts for the technical review of greenhouse gas inventories from Parties included in Annex I to the Convention**

74. The basic training course, developed and offered since 2003 in accordance with decision 12/CP.9, was completed in 2005 with the LULUCF sector module and later in 2009 was updated to take into account the methodological developments in GHG inventories and experience gained in the review process. By decision 10/CP.15, the COP requested the secretariat to develop and implement the updated training programme for GHG inventory review experts for the technical review of GHG inventories from Annex I Parties, including the examination of experts, and giving priority to the organization of an annual seminar for the basic course. It also encouraged Annex I Parties that are in a position to do so to provide financial support to enhance the training programme. In accordance with this decision, the updated training programme has been formally offered since 2010 and consists of the updated basic course, covering the general and cross-cutting review issues, the courses on review of all IPCC inventory sectors; the course on improving communication and in facilitating consensus in ERTs; the course on the review of complex models and higher-tier methods (offered since 2012); and an annual refresher seminar for experienced GHG inventory review experts, subject to the availability of resources, which was offered in 2010, 2011, 2012 and 2013.

75. The secretariat held two rounds of instructed online courses in 2013. The second round taking place owing to major contributions to supplementary funding by Belgium, European Union, Finland, Japan, New Zealand, Norway, Portugal, Romania, Sweden, Switzerland, United Kingdom and United States. The first course took place between 4 March and 15 April 2013 and the second course is taking place between 9 September and 21 October 2013. Both rounds of instructed courses were offered online, with two instructors available to provide guidance and to respond to questions from the trainees, and ended with three-day training seminars, the first held in Bonn, Germany, (16–18 April 2013) and the second to be held in Hanoi, Viet Nam (22–24 October 2013). For the two courses, the secretariat invited as instructors two highly experienced and capable GHG inventory review experts from non-Annex I Parties identified from the pool of LRs and registered on the UNFCCC roster of consultants.<sup>14</sup>

76. During the training seminars, the trainees participate in a simulation of a centralized review using real annual GHG inventory submissions over two days and on the last day, they take their corresponding examinations. In 2013, a total of 112 invitations were sent to Parties to nominate experts to the roster of experts and, accordingly, these nominees were invited to attend the two instructed courses. Thirty-nine experts participated in the first instructed online course; of these, 35 experts participated in the final training seminar (one of them did not sit the examinations) and 19 experts passed the examinations. In the second course, 37 experts registered to participate during the online instructed period and, of these, 36 experts are expected to participate in the final training seminar and take the

---

<sup>13</sup> See footnote 11 above.

<sup>14</sup> <<https://unfccc.int/secretariat/employment/consultancy.html>>.

examinations, including five experts from the hosting Party, Viet Nam. The results of the examinations will be available in November 2013. During the second instructed course, which focused on the training of experts from Asian and African countries, 29 experts from non-Annex I Parties are participating. These training courses are helping to strengthen the review process and will help all experts involved and their countries to enhance their capabilities in preparing GHG inventories.

77. In addition to the instructed courses, the secretariat makes the inventory training courses available for inventory experts throughout the year and provides access for new trainees upon request by a Party. In 2013, 30 experts completed the non-instructed online courses and made relevant arrangements to take the examinations under the supervision of the secretariat, without incurring additional costs to the secretariat.

78. Since June 2012, the secretariat has offered the new course on the review of complex models and higher-tier methods online. This course aims to facilitate the review of emission estimates performed using these methods (tier 3 methods), addressing the difficulties occurring during the reviews in relation to the use of complex models and higher tiers, and providing additional guidance for ERTs on the specific preparation required for their review. At the beginning of 2012, the secretariat invited more than 300 experienced and new experts to take this course. Of these, 119 experts have been registered and have requested access to the course. To date, 22 experts have passed the optional examination.

79. In 2013, the secretariat organized a half-day refresher seminar in conjunction with the 10<sup>th</sup> meeting of LRs on the stepwise approach to inventory reviews and best practices for the review process, in which 47 experienced experts participated (see para. 22 above). The main objective of this seminar was to refresh the knowledge of review experts on good practices and approaches for the different steps of the review process and to enhance their common understanding on the different approaches to the reviews, which became more complex and resource intensive in recent years, including the performance of particular aspects of the review cycle, such as identification of potential problems, assessment of underestimations of emissions or overestimations of removals during the review week, preparation of the review reports, including the use and population of the review transcripts, and interaction with the Party. Therefore, reviewers were benefited from a refresher seminar that addressed these issues and difficulties as presented during the reviews, and provided additional guidance for review experts on good practice specific steps to follow and aspects to be considered during the review cycle. The seminar also aimed to facilitate discussions among LRs on these issues and to provide an input to the 10<sup>th</sup> meeting of LRs for their consideration.

## **B. Training programme for members of expert review teams participating in annual reviews under Article 8 of the Kyoto Protocol**

80. Decision 24/CMP.1 requested the secretariat, subject to the availability of resources, to develop and implement the training programme for members of ERTs participating in the initial reviews under Article 8 of the Kyoto Protocol, including the testing of experts and a final seminar for the course on the application of adjustments. The courses covered important aspects for the review of the initial reports, such as national systems, the application of adjustments and modalities for the accounting of assigned amounts under Article 7, paragraph 4, of the Kyoto Protocol. These courses have been offered online to experts since 2006. The majority of experienced experts at that time completed the training courses and passed the mandatory examination online in 2006.

81. Decision 24/CMP.1 requested the secretariat, subject to the availability of resources, to develop and implement the training programme for members of ERTs participating in the initial reviews under Article 8 of the Kyoto Protocol, including the testing of experts and a final seminar for the course on the application of adjustments. The courses covered important aspects for the review of the initial reports, such as national systems, the application of adjustments and modalities for the accounting of assigned amounts under Article 7, paragraph 4, of the Kyoto Protocol. These courses have been offered online to experts since 2006. The majority of experienced experts at that time completed the training courses and passed the mandatory examination online in 2006.

82. By decision 8/CMP.5, the CMP requested the secretariat to develop and implement the updated training programme for members of ERTs participating in annual reviews under Article 8 of the Kyoto Protocol, including the examination of experts. The training programme is intended to train members of ERTs for the review of information submitted under Article 7 of the Kyoto Protocol. All training courses are designed to be offered online, in some cases with the support of an instructor, and the examinations were offered online three to four times a year until 2011, but in the last two years, they have been offered two times a year due to the limited number of participants. All courses are available, without an instructor, to trainees throughout the year.

83. This training programme was developed on the basis of the existing courses; some are mandatory for all reviewers, while some are mandatory for LRs and some other experts qualified for the review of particular aspects of the information submitted under Article 7 of the Kyoto Protocol. The training programme consists of a course on each of the following aspects: national systems, application of adjustments, modalities for the accounting of assigned amounts under Article 7, paragraph 4, review of national registries and information on assigned amounts, and review of activities under Article 3, paragraphs 3 and 4, of the Kyoto Protocol.

84. In 2010, 194 experts participated in the online training courses and 144 experts passed one or more examinations. In 2011, 68 experts participated in the online training courses and 65 experts passed one or more examinations. In 2012, 78 experts participated in the online training courses and 61 experts passed one or more examinations. In 2013, 56 experts participated in the online training courses and 49 experts passed one or more examinations. For the period 2010–2013, two highly experienced experts and LRs from non-Annex I Parties were invited, one each year, to be the instructor for the course on the application of adjustments.

## **VI. Greenhouse gas information system**

85. Support to the reporting and review processes requires a number of information technology systems, which differ in purpose, scope, size and degree of support. These systems vary from extensive, complex databases, like the compilation and accounting database (CAD) or the Locator tool, to some smaller, focused ‘review tools’ serving particular analytical purposes of the review process. This report uses the term “greenhouse gas information system” to describe the status and current developments of these systems.

86. In 2013, Annex I Parties continued their annual reporting on GHG inventories and for Annex I Parties that are also Parties to the Kyoto Protocol, 2013 marked the fourth year of mandatory reporting for the first commitment period of the Kyoto Protocol. All Annex I Parties continued to make use of the CRF Reporter software successfully in preparing and submitting their GHG inventories; Annex I Parties that are also Parties to the Kyoto Protocol also included in their GHG inventories the tables for reporting activities under Article 3, paragraphs 3 and 4, of the Kyoto Protocol. No major issues were identified in the

reporting and submission process. However, the number of records per submission by Party is constantly increasing due to the high volume of information reported for activities under Article 3, paragraphs 3 and 4, of the Kyoto Protocol and the increase in the time series of years covered by the GHG inventory. To this end, the secretariat continued to monitor and adjust its internal systems in order to accommodate the increased data volume.

87. At the date of publication of this report, in 2013 Annex I Parties made 88 submissions of their GHG emission inventories using the common reporting format (CRF) (79 submissions were accepted by the secretariat) and 55 submissions of their standard electronic format data via the UNFCCC submission portal. These include both original submissions and resubmissions in the lead-up to, during and as a result of the annual review process. All of these submissions have been imported into the GHG information system, which is maintained by the secretariat and each of them has been assessed for completeness and internal consistency.

88. The secretariat continued to ensure during 2013 that the data provided through the GHG data interface are regularly updated in order to make the latest GHG inventory data available for inventory review teams and external users, including for the negotiations held during the sessions of the subsidiary bodies to the Convention. To this end, the secretariat supported releases in March and June 2013 of GHG inventory data through the GHG data interface. Another release is planned for end of October 2013.

89. The secretariat continued the support and improvement process of the CAD. The CAD continues to perform its important tasks as record keeper of the information reported by Annex I Parties on GHG emissions and assigned amounts, the results from the review process and of decisions by the Compliance Committee, and as the conduit for the information and processes to the international transaction log. In addition to the continued support for the CAD, the secretariat started to develop the required changes/additions to the CAD for the second commitment period of the Kyoto Protocol, the development of required changes/additions for the true-up period after the first commitment period of the Kyoto Protocol and it will add the possibility of caching selected GHG data imported from the CAD.

90. To support the current and the upcoming review cycles the secretariat is developing the I-VTR. The I-VTR software is composed of three modules. Modules 1 and 2 have already been delivered for the use of ERTs and they were indeed used in the 2013 cycle, while module 3 is still in development. Module 1 (reference library) is a site which allows the organization, storage and maintenance of reference materials and documentation associated with an annual review. Module 2 (ERT workspace) is a site that provides an efficient, secure and transparent collaboration system for managing documents and communications, including questions raised by ERT members and answers received from the Parties during an annual review. Module 3 (review issue tracking system) is a web-based database system used to create, track and manage review findings, including their structuring, and provides links to the questions and answers. Overall, the development of the I-VTR proceeds well, but the system needs to mature, taking on board the experience from use at real reviews, in order to become fully functional and user-friendly. One can also note that familiarity of the review experts with the system is a sizable factor: some users switch easier to a SharePoint-based system whereas others require time. The secretariat will further work on increasing the user-friendliness of the system and on the improvement in its performance parameters.

91. The secretariat is continuing to support the CRF Reporter software and the expert review process by maintaining and generating reports and tools that underpin the process. The secretariat continues to maintain and support the other parts of the GHG information system, such as the GHG data warehouse and business intelligence components of the

system, in order to ensure quality and to address some of the issues identified by Parties and review experts during the reporting and review process in 2011.

92. In the fourth quarter of 2013, the secretariat will make available an improved version of the CRF Reporter software for testing, taking on board some of the comments received from Parties through their views. This version will add functionality compared with the trial version; in particular, the import of data in the format of the current CRF Reporter will be enabled where possible, the completeness of the generation of CRF tables and submission files will increase, and the submission management will be improved. The secretariat aims to complete the development of the web-based CRF Reporter by June 2014, in accordance with the guidance received from Parties.

---