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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 2011 to October 2012 and to activities planned for 2013. 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.

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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.[1]

B. Scope of the note

3. This report provides information on activities relating to GHG inventory reviews conducted from November 2011 to October 2012 and on planned activities for 2013. It also provides information on the meeting of inventory LRs, 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"[2] 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 2011, 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.

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

[1] FCCC/SBSTA/2006/5, paragraph 95.
[2] FCCC/SBSTA/2012/INF.8.

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 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, inclusion of new experts as trainees in the review teams, 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. 2011 annual review cycle

9. In 2011, nine in-country reviews and seven centralized reviews covering 43 Annex I Parties were conducted. Reports of these reviews were published between December 2011 and October 2012. Of the nine in-country review reports, one was completed four weeks before the date established in the Article 8 review guidelines for publication,[3] one three weeks before this date and another one week before this date. One report was completed on time and two were completed six weeks after the due date for publication. Two reports were completed between 13 and 14 weeks after the due date for publication and one was completed 25 weeks after the due date for publication. Of the nine in-country review reports, five were published before less than a year after the submission due date.

10. Of the 34 centralized review reports, one was completed one week before the date established in the Article 8 review guidelines for publication. Five reports were completed between six and nine weeks after the due date for publication. Five reports were completed between 10 and 11 weeks after the due date for publication and five reports were completed between 16 and 18 weeks after this date. Eight reports were completed between 19 and 25 weeks after the due date for publication and eight reports were completed between 27 and 33 weeks after this date. At the time of the publication of this report, two review reports are not completed yet, however their publication is expected for the coming days. Of these 34 centralized review reports, only three were published less than a year after the submission due date.

11. It is important to note that delays in the preparation and publication of review reports observed in the 2010 review cycle[4] continued in the 2011 review cycle and this

[3] Forty-one of the 43 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.

[4] FCCC/SBSTA/2011/INF.13, paragraph 10.

situation has not improved. This situation may be indicative that this problem is of a serious and recurrent nature and needs to be addressed as such.

12. The delays in the publication of the reports have various reasons, but the most significant reason is that the experts participating in these reviews had, owing to other commitments and work obligations, difficulties in advancing and finalizing the review reports within the established deadlines. In addition, experts faced difficulties in meeting these deadlines because of the complexity of the review process under the Kyoto Protocol, such as the need to review the information on national systems or activities under Article 3, paragraphs 3 and 4, of the Kyoto Protocol and in some cases to apply procedures for adjustments, which increased substantially the work of the experts and contributed to delays. Also, experts faced difficulties in meeting the established deadlines owing to the need for continuous interaction with the Parties and, in some cases, because Parties provided their comments late, used successive iterations for providing comments or requested additional time to provide comments.

13. In addition, another important reason for the delay in the publication of the reports was the severe shortage of review experts experienced by the secretariat in recent years, particularly those invited to participate in centralized reviews of annual submissions in 2011,[5] leading many expert review teams (ERTs) to conduct review tasks with an incomplete number of members and the secretariat to cancel a centralized review and distribute the initially planned Parties' annual submissions among other centralized reviews, increasing significantly the amount of information to be reviewed by each ERT and correspondingly the experts' workload. From seven centralized reviews conducted in 2011, only one review was conducted by a complete ERT. Despite the seemingly large number of experts in the UNFCCC roster of experts, of which a large number have passed the required training courses and examinations, the secretariat had difficulty in engaging experts for the review process. Many experts do not have enough time to devote to the reviews as they are involved in multiple activities related, or unrelated, to climate change or are not more involved in climate change activities, in particular review activities, for different reasons, including a lack of financial resources. The incompleteness of ERTs made it difficult to ensure the timeliness of deliverables[6] by ERTs, in particular review reports, and the quality of these review reports. Due to insufficient expert resources, some experts have to participate in more than one review in a review cycle, putting additional and unexpected burden on them and ERTs (for the 2012 review cycle see chapter IV below).

14. Another reason for problems with the availability of experts is the decline in funding opportunities in Annex I Parties being caused, at least in part, by the impact of the economic constraints currently faced by these Parties. For example, in the course of the preparation for the 2012 review cycle the secretariat received 11 requests from experts nominated by Annex I Parties for exceptional funding, 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. The secretariat had to grant exceptional funding in 10 cases to ensure that the reviews took place, but the number of exceptional situations seems to indicate that this problem is sizeable.

[5] FCCC/SBSTA/2011/INF.13, paragraphs 56 and 57.

[6] These deliverables include, in the context of the review of annual submissions, drafting papers with potential problems from reviews (Saturday papers) during the review week, assessing responses from Parties to these potential problems and calculating adjustments, and communicating with Parties throughout the review process.

2. 2012 annual review cycle

15. In 2012, the secretariat received 43 annual submissions[7] 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 43 submissions were prepared and published on the UNFCCC website by 21 June 2012.[8] 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 29 June 2012.[9] 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 ERTs for further assessment.

16. 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 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.

17. For 2012, the secretariat coordinated the review of 11 inventory submissions through in-country reviews, while the others were reviewed through eight centralized reviews (see para. 18 below). Also, following a recommendation made at the 9th meeting of LRs, the secretariat organized one of the centralized reviews with two separate ERTs, each reviewing only two Parties (see para. 42 below). In addition, the secretariat organized on 28 and 29 September 2012, an in-country expedited review for the reinstatement of eligibility of Lithuania to use the mechanisms established under Articles 6, 12 and 17, of the Kyoto Protocol, requested by Lithuania in accordance with the Article 8 review guidelines.

18. 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 6 October 2012, individual inventory reviews had been conducted for all 43 Annex I Parties, as follows:

(a) In-country reviews were conducted between 10 September and 6 October 2012 for Belgium, Croatia, Estonia, Finland, Greece, Lithuania, Norway, Portugal, Slovakia, the United Kingdom of Great Britain and Northern Ireland and the United States of America. The reports of these reviews are expected to be finalized and published between February and March 2013;

[7] 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.

[8] <http://unfccc.int/national_reports/annex_i_ghg_inventories/inventory_review_reports/items/6617.php>.

[9] <http://unfccc.int/resource/webdocs/sai/2012.pdf>.

(b) Centralized reviews were organized between 3 and 29 September 2012 in Bonn, Germany, for Australia, Austria, Belarus, Bulgaria, Canada, the Czech Republic, Denmark, the European Union, France, Germany, Hungary, Iceland, Ireland, Italy, Japan, Kazakhstan, Latvia, Liechtenstein, Luxembourg, Malta, Monaco, the Netherlands, New Zealand, Poland, Romania, the Russian Federation, Slovenia, Spain, Sweden, Switzerland, Turkey and Ukraine. The reports of these reviews are expected to be finalized and published between January and March 2013.

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

Annex I Party	*NIR and CRF submission dates*	*Language of NIR*	*Status report symbol*	*Review dates*	*Status of review report*
Australia	NIR – 14 Apr. 2012 CRF – 14 Apr. 2012	English	FCCC/ASR/2012/AUS	24–29 Sept. 2012	In preparation
Austria	NIR – 12 Apr. 2012 CRF – 12 Apr. 2012	English	FCCC/ASR/2012/AUT	10–15 Sept. 2012	In preparation
Belarus[a]	NIR – 14 Apr. 2012 CRF – 14 Apr. 2012	Russian	FCCC/ASR/2012/BLR	3–8 Sept. 2012	In preparation
Belgium	NIR – 15 Apr. 2012 CRF – 15 Apr. 2012	English	FCCC/ASR/2012/BEL	10–15 Sept. 2012	In preparation
Bulgaria	NIR – 12 Apr. 2012 CRF – 12 Apr. 2012	English	FCCC/ASR/2012/BGR	3–8 Sept. 2012	In preparation
Canada	NIR – 11 Apr. 2012 CRF – 11 Apr. 2012	English	FCCC/ASR/2012/CAN	10–15 Sept. 2012	In preparation
Croatia	NIR – 13 Apr. 2012 CRF– 13 Apr. 2012	English	FCCC/ASR/2012/HRV	17–22 Sept. 2012	In preparation
Czech Republic	NIR – 18 Apr. 2012 CRF – 15 Apr. 2012	English	FCCC/ASR/2012/CZE	3–8 Sept. 2012	In preparation
Denmark	NIR – 13 Apr. 2012 CRF – 13 Apr. 2012	English	FCCC/ASR/2012/DNK	3–8 Sept. 2012	In preparation
Estonia	NIR – 13 Apr. 2012 CRF – 13 Apr. 2012	English	FCCC/ASR/2012/EST	10–15 Sept. 2012	In preparation
European Union	NIR – 14 Apr. 2012 CRF – 13 Apr. 2012	English	FCCC/ASR/2012/EU	24–29 Sept. 2012	In preparation
Finland	NIR – 14 Apr. 2012 CRF – 12 Apr. 2012	English	FCCC/ASR/2012/FIN	1–6 Oct. 2012	In preparation
France	NIR – 4 Apr. 2012 CRF – 4 Apr. 2012	French	FCCC/ASR/2012/FRA	17–22 Sept. 2012	In preparation
Germany	NIR – 13 Apr. 2012 CRF – 13 Apr. 2012	English	FCCC/ASR/2012/DEU	3–8 Sept. 2012	In preparation
Greece	NIR – 18 Apr. 2012 CRF – 11 Apr. 2012	English	FCCC/ASR/2012/GRC	1–6 Oct. 2012	In preparation
Hungary	NIR – 4 May 2012 CRF – 14 Apr. 2012	English	FCCC/ASR/2012/HUN	10–15 Sept. 2012	In preparation

Annex I Party	*NIR and CRF submission dates*	*Language of NIR*	*Status report symbol*	*Review dates*	*Status of review report*
Iceland	NIR – 15 Apr. 2012 CRF – 14 Apr. 2012	English	FCCC/ASR/2012/ISL	10–15 Sept. 2012	In preparation
Ireland	NIR – 13 Apr. 2012 CRF – 13 Apr. 2012	English	FCCC/ASR/2012/IRL	3–8 Sept. 2012	In preparation
Italy	NIR – 11 Apr. 2012 CRF – 11 Apr. 2012	English	FCCC/ASR/2012/ITA	24–29 Sept. 2012	In preparation
Japan	NIR – 12 Apr. 2012 CRF – 12 Apr. 2012	English	FCCC/ASR/2012/JPN	10–15 Sept. 2012	In preparation
Kazakhstan[b]	NIR – 18 Jul. 2012 CRF – 13 Apr. 2012	Russian	FCCC/ASR/2012/KAZ	17–22 Sept. 2012	In preparation
Latvia	NIR – 14 Apr. 2012 CRF – 14 Apr. 2012	English	FCCC/ASR/2012/LVA	10–15 Sept. 2012	In preparation
Liechtenstein	NIR – 13 Apr. 2012 CRF – 13 Apr. 2012	English	FCCC/ASR/2012/LIE	24–29 Sept. 2012	In preparation
Lithuania	NIR – 14 Apr. 2012 CRF – 13 Apr. 2012	English	FCCC/ASR/2012/LTU	28–29 Sept. 2012	In preparation
Luxembourg	NIR – 11 May 2012 CRF – 5 Apr. 2012	English	FCCC/ASR/2012/LUX	24–29 Sept. 2012	In preparation
Malta	NIR – 13 Apr. 2012 CRF – 13 Apr. 2012	English	FCCC/ASR/2012/MLT	10–15 Sept. 2012	In preparation
Monaco	NIR – 4 Apr. 2012 CRF – 29 Mar. 2012	French	FCCC/ASR/2012/MCO	17–22 Sept. 2012	In preparation
Netherlands	NIR – 14 Apr. 2012 CRF – 14 Apr. 2012	English	FCCC/ASR/2012/NLD	17–22 Sept. 2012	In preparation
New Zealand	NIR – 12 Apr. 2012 CRF – 12 Apr. 2012	English	FCCC/ASR/2012/NZL	10–15 Sept. 2012	In preparation
Norway	NIR – 15 Apr. 2012 CRF – 15 Apr. 2012	English	FCCC/ASR/2012/NOR	17–22 Sept. 2012	In preparation
Poland	NIR – 13 Apr. 2012 CRF – 13 Apr. 2012	English	FCCC/ASR/2012/POL	24–29 Sept. 2012	In preparation
Portugal	NIR – 13 Apr. 2012 CRF – 13 Apr. 2012	English	FCCC/ASR/2012/PRT	24–29 Sept. 2012	In preparation
Romania	NIR – 21 Mar. 2012 CRF – 21 Mar. 2012	English	FCCC/ASR/2012/ROU	17–22 Sept. 2012	In preparation
Russian Federation	NIR – 25 May 2012 CRF – 13 Apr. 2012	Russian	FCCC/ASR/2012/RUS	3–8 Sept. 2012	In preparation
Slovakia	NIR – 15 Apr. 2012 CRF – 14 Apr. 2012	English	FCCC/ASR/2012/SVK	1–6 Oct. 2012	In preparation
Slovenia	NIR – 13 Apr. 2012 CRF – 12 Apr. 2012	English	FCCC/ASR/2012/SVN	3–8 Sept. 2012	In preparation

Annex I Party	*NIR and CRF submission dates*	*Language of NIR*	*Status report symbol*	*Review dates*	*Status of review report*
Spain	NIR – 17 Apr. 2012 CRF – 17 Apr. 2012	Spanish	FCCC/ASR/2012/ESP	17–22 Sept. 2012	In preparation
Sweden	NIR – 26 Mar. 2012 CRF – 26 Mar. 2012	English	FCCC/ASR/2012/SWE	24–29 Sept. 2012	In preparation
Switzerland	NIR – 12 Apr. 2012 CRF – 12 Apr. 2012	English	FCCC/ASR/2012/CHE	17–22 Sept. 2012	In preparation
Turkey[c]	NIR – 14 Apr. 2012 CRF – 14 Apr. 2012	English	FCCC/ASR/2012/TUR	24–29 Sept. 2012	In preparation
Ukraine	NIR – 13 Apr. 2012 CRF – 13 Apr. 2012	Russian	FCCC/ASR/2012/UKR	17–22 Sept. 2012	In preparation
United Kingdom of Great Britain and Northern Ireland	NIR – 13 Apr. 2012 CRF – 13 Apr. 2012	English	FCCC/ASR/2012/GBR	17–22 Sept. 2012	In preparation
United States of America	NIR – 13 Apr. 2012 CRF – 13 Apr. 2012	English	FCCC/ASR/2012/USA	1–6 Oct. 2012	In preparation

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

[a] Belarus has indicated explicitly that its 2012 annual submission is made under the Convention only.

[b] 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 2012 annual submission is being treated as a submission under the Convention.

[c] Turkey indicated that the 2012 annual submission is made under both the Convention and the Kyoto Protocol.

19. It is too early to draw any conclusions on the timeliness of the reviews conducted in 2012, as the review reports are in preparation and because, with very few exceptions, the inventory submissions have to be reviewed following the requirements established under the Article 8 review guidelines, since, for Annex I Parties that are also Parties to the Kyoto Protocol, 2012 is the third year for the mandatory annual reporting and review under the Kyoto Protocol.

B. Other inventory review procedures

20. 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.

21. 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 2012 reviews, eight Parties under centralized 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.

22. 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

23. 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.

24. 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 (9^{th}) took place in Bonn on 27–29 March 2012. Sixty-one experts, 34 from non-Annex I Parties and 35 from Annex I Parties, were invited to the meeting, which was attended by only 40 experts, 17 from non-Annex I Parties and 23 from Annex I Parties. In addition, a member of the enforcement branch and a member of the facilitative branch of the Compliance Committee and two representatives of the European Union attended the meeting as observers.

25. In addition, the secretariat organized a half-day refresher seminar for experienced experts on 27 March 2012, before the 9^{th} meeting of LRs, on good practice approaches to inventory issues identified during the review process. All the experienced experts invited to the 9^{th} meeting of LRs, were also invited to the refresher seminar, which was attended by 38 experts, 17 from non-Annex I Parties and 21 from Annex I Parties.

26. The 9^{th} 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 of the eighth lead reviewers' meeting

27. The LRs noted, as in the eighth meeting 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 to conduct better planning of and preparation for the reviews.

28. The LRs noted with concern the decrease in the number of experts participating in the 2011 review cycle. Compared with the 2010 review cycle, when 165 experts participated in the review activities, the number of experts has decreased by 24 per cent, as only 126 experts participated.

29. The LRs noted that the decrease in the number of participating experts was especially marked in the centralized reviews and, as a consequence, most of the ERTs in centralized reviews in the 2011 review cycle were incomplete in the sense that for one or more sectors there was only one sectoral expert.

30. The LRs recognized that incompleteness of review teams had a negative impact on the reviews. The LRs also recognized the importance of the review process for the objectives of the Convention and the Kyoto Protocol. Therefore, the LRs requested the secretariat and the Parties to increase their efforts to ensure that a sufficient number of review experts participate in the 2012 review cycle.

31. The LRs welcomed the secretariat's improvement of the introductory presentation to ERTs, including specific guidance for ERTs on using the words "recommend" and "encourage" when advising a Party on how to resolve an identified problem.

32. The LRs also welcomed the secretariat's provision, in response to a request from the 8th LR meeting, of a tool that examined the recalculations.

2. Consistency and timeliness in reviews

33. The LRs noted that there are still issues of consistency with respect to the review of the completeness of estimates, transparency and estimates not in line with the Intergovernmental Panel on Climate Change (IPCC) *Good Practice Guidance and Uncertainty Management in National Greenhouse Gas Inventories* (hereinafter referred to as the IPCC good practice guidance), which show that ERTs, under the LRs' guidance and with the support of the secretariat, must continue their efforts to achieve consistency as a matter of priority.

34. The LRs noted that it is important that the quality assurance activities performed by the secretariat start as early as possible during the review process, as a way to increase the efficiency of the work by the ERT.

35. The LRs noted with concern that the finalization of annual review reports (ARRs) was late in both the 2010 and the 2011 review cycles.

36. The LRs agreed on the need to deliver ARRs on schedule, as agreed by Parties. One of the main objectives of the planned improvements for the 2012 review cycle is to live up to that commitment.

37. The LRs agreed that it is desirable to have the complete zero order[10] draft review reports available at the end of the review week for both in-country and centralized reviews, while noting that achieving this is challenging for centralized reviews.

38. The LRs requested the secretariat to provide the review report template to the review experts no later than one week prior to the start of the review week.

39. The LRs welcomed the questionnaire prepared by the secretariat to enquire about review experts' availability for the 2012 reviews. The LRs requested the secretariat to invite review experts to the reviews as early as possible and provide information on which Parties they will review.

3. Planning and preparation for 2012 reviews

40. The LRs noted that there is limited time available during centralized reviews. Therefore, the LRs reiterated their recommendation from the 8th meeting of LRs that during centralized reviews special attention should be paid, by review experts and LRs, to follow

[10] The complete zero order ARR contains the ARR sections for all sectors compiled in one document.

up on the recommendations made in previous review reports and on recalculations, while still ensuring that all review requirements are covered during the review.

41. The LRs agreed to take a stronger role in leading ERTs, to ensure proper time management and that all review requirements are covered. This could be done by developing an explicit stepwise approach to the review by providing more clarity with regard to what needs to be done and when. The stepwise approach could also help to integrate new review experts in the teams and the review work. The LRs requested the secretariat, together with a group of LRs, to develop a stepwise approach to the reviews and to trial it during the 2012 review cycle.

42. The LRs requested the secretariat to decrease the number of Parties reviewed by one ERT to be no more than four, subject to availability of a sufficient number of experts. The LR also requested the secretariat to explore the possibility of having an ERT reviewing two Parties.

43. 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 considered within the stepwise approach.

44. The LRs endorsed the overall approach to the annual reviews in 2012, as presented by the secretariat during the meeting. This includes the priorities for choosing Parties to have an in-country review, namely, Parties that have requested an in-country review and Parties to the Convention that had their last in-country review five years ago.

45. The LRs encouraged the ERTs, with the assistance of the secretariat, to record all communication with the Parties in order to enhance the documentation of the review.

4. Improvements in documents

Annual review report templates

46. The LRs noted that the instructions provided in the 2011 review report templates were updated and made more clear. They requested the secretariat to further improve the instructions provided in the review report templates and, if possible, develop short checklists providing tips to the review experts when drafting the report.

47. The LRs also requested the secretariat to continue to streamline the review report template, with a view to avoiding any duplication of information in the review report and unnecessary repetition of information provided by Parties in their national inventory report, and preventing any technical difficulties encountered by review experts when using the review report templates.

48. They also requested the secretariat to continue developing standard language for the review report templates, with options where relevant, to further improve consistency across the review reports.

49. The LRs encouraged the secretariat to further explore the option of providing information in the ARR in a tabular format. The LRs noted that this would facilitate the drafting of the review reports for review experts and improve their readability.

50. The LRs requested the secretariat to include a table at the end of the review report where all recommendations, sector by sector, will be included. This will replace the current section on recommendations in the review report.

Synthesis and assessment report

51. The LRs welcomed the information provided by the secretariat on the questionnaire on the usefulness of the tables and graphs in the synthesis and assessment (S&A) part I report. The LRs concluded that although the S&A was found useful there is a strong

interest in revising its structure in order to make it more flexible and focused on the data that ERTs mostly use.

52. The LRs encouraged the secretariat to revisit the tables that are part of S&A part I report, with a view to reducing the number of tables, such as trend tables, while maintaining consistency with the requirements set out in the Guidelines for the preparation of national communications by Parties included in Annex I to the Convention, Part I: UNFCCC reporting guidelines on annual inventories. The LRs also encouraged the secretariat to explore other alternatives for displaying the information in tables and graphs, such as the use of the GHG data interface.

5. Review tools

53. The LRs welcomed the work undertaken by the secretariat to further develop the review tools in order to meet the needs under the Convention and its Kyoto Protocol. They noted that this work facilitates the annual review by the ERTs and the consistency of this review, and also noted that providing feedback on the review tools is crucial for the further development of the tools. The LRs requested the secretariat to provide more guidance to ERTs on the review tools by preparing a list of the review tools available and giving a presentation at the beginning of the review on available review tools and a short description of their use, aiming for full utilization of the review tools by the ERT during and after the review week.

54. The LRs concluded once again that the review transcript is a useful tool however, it is not always filled in by review experts and not always updated after the Party's comments to the draft review report have been provided. The LRs noted the need to raise this and the importance of the review transcript with the review experts during the whole review cycle.

55. The LRs reiterated request from their 8th meeting that the secretariat include recommendations from the previous year's in the review transcripts to be used in the 2012 review cycle.

56. The LRs requested the secretariat to explore options to improve the Locator tool by including some basic graph options to make it easier to copy from the Locator, the possibility export a sector to Microsoft Excel and the search options.

6. Virtual team room

57. The LRs noted the work undertaken by the secretariat on the redesign of the virtual team room (VTR) to support the review activities, and welcomed the new guidance for its development, in particular the requirement to simplify its structure and use and to increase the efficiency of its use by ERTs. The LRs welcomed the version of the reference library component of the VTR that was shown during the LRs' meeting, noting that it is a valuable tool to support the review process and GHG inventories in general. The LRs encouraged the secretariat to share the reference library with all ERTs as soon as possible, preferably for the next review cycle. However, the LRs recommended that the secretariat take into consideration the specific circumstances of some Parties, such as limited access to the Internet, older versions of Internet browsers and word-processing documents, in the design and development of later phases of the VTR, such as the ERT workspace, the review issues tracking system and the document management system, in order to guarantee its functionality and efficiency. The LRs noted that the funding for this project is not secured in its totality, and emphasized the importance of Parties contributing to this work with financial resources.

7. Suggested further improvements to the review process

58. The LRs noted the need for better communication between the secretariat, the LRs and the Party that will undergo an in-country review, to make sure that enough time will be provided for the review experts to work with the Party experts on the issues that need further clarification during the review.

59. The LRs agreed that having an experienced review expert participating in a review as a desk reviewer could be a fall-back option when there are difficulties with having complete review teams.

60. The LRs encouraged the use of telephone conferences and web-based tools to facilitate the review, especially prior to the review week.

61. The LRs welcomed the draft decision trees on notation keys, derived from the Revised 1996 IPCC Guidelines for National Greenhouse Gas Inventories, the IPCC good practice guidance and from the guidance to European Union member States for reporting carbon pools which are not a net source. These draft decision trees were presented during the refresher seminar (see para. 62 below). The LRs agreed that these draft decision trees are a good starting point but they need further elaboration. They agreed to take on work to develop the decision trees further. The revised decision trees will be sent to the secretariat by 2 May 2012 and will provided to all LRs attending the meeting for comments. The LRs further agreed that these decisions trees, if agreed to by the LRs, could be a useful tool for the 2012 review cycle under the Convention and Kyoto Protocol, separately if appropriate.

8. Training of review experts

62. The LRs welcomed the information on ongoing and planned training activities in 2012, including the organizing of annual and regional training seminars, the launch of a new training course for the review of higher-tier methods and complex models, and the organizing of a refresher seminar for experienced reviewers. The LRs noted the success of the refresher seminar that was held on 27 March 2012, back-to-back with the 9th meeting of inventory LRs, with the participation of LRs and experienced reviewers of all sectors. They noted that the seminar, with its focus on the good practice approaches to inventory issues identified during the review process, helped to refresh and further develop common understanding of some issues and problems that ERTs face during the review process. The LRs recommended that the secretariat continue organizing regional training and refresher seminars, subject to the availability of resources, and encouraged Parties to provide such resources and, in particular, continue supporting regional training seminars.

63. Given the complexity of the annual review process, the LRs reiterated the need to further enhance the approach for the integration of new reviewers into the work of the ERTs. The LRs requested the secretariat to continue to take into account the need for smooth integration of the new reviewers into the work of the ERTs when planning the composition of ERTs, and agreed that LRs would continue to take this into account when allocating and supporting tasks within the team, in particular by guiding new experts in the preparation for the centralized reviews and encouraging mentoring by more experienced reviewers. To support this effort, the LRs noted the information provided by the secretariat on which experts are participating in the review process for the first time was helpful in fulfilling the above-mentioned need, and requested the secretariat to continue to provide such information to the LRs.

64. The LRs noted a need for increasing the number of review experts who actively participate in the review process, to ensure the completeness and balance of expertise of the ERTs, in particular review experts from non-Annex I Parties and Parties with economies in transition. The LRs reiterated the need for the governments that nominate experts to the UNFCCC roster of experts and agree on their participation in reviews to ensure that these

experts are fully available during the whole review process. The LRs also reiterated the need for Parties to update the UNFCCC roster of experts on a regular basis and requested the secretariat to remind all Parties once a year to update it.

65. The LRs noted a need for the training courses to be updated to meet future requirements of the ERTs.

9. Development of the new CRF Reporter

66. The LRs noted the information provided by the secretariat on the work to develop the new common reporting format (CRF) Reporter software. The LRs noted that this work is in accordance with decision 15/CP.17 adopting the revised UNFCCC "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" (hereinafter referred to as the Revised UNFCCC Annex I inventory reporting guidelines), which incorporate methodologies of the 2006 IPCC Guidelines for National Greenhouse Gas Inven*tories* (hereinafter referred to as the 2006 IPCC Guidelines). The LRs also noted that in accordance with decision 15/CP.17, paragraphs 3 and 5, the Revised UNFCCC Annex I inventory reporting guidelines and the new CRF Reporter will be used on a voluntary trial basis from October 2012 to May 2013 and fully implemented from 2015.

67. The LRs noted that the funds currently available for this work are not sufficient for the completion of the project. The LRs emphasized the importance of advancing the development of the new CRF Reporter and the need for Parties to contribute to this work with supplementary financial resources in order to ensure completion in the allotted time.

68. The LRs noted that the work on the revision of the UNFCCC Annex I inventory reporting guidelines will offer an opportunity for Parties to improve their reporting, taking into consideration, inter alia, the lessons learned and the recommendations provided by LRs and ERTs.

69. The full text of the conclusions of the 9th meeting of LRs is available on the UNFCCC website.[11] At the time of publication of this report, the secretariat had implemented most of the LRs' recommendations, fully or partially and work on some recommendations was still in progress. Of particular note are the following actions already undertaken to implement these recommendations:

(a) The earlier start of the process to form ERTs, resulting in an earlier preparation of the review teams;

(b) The availability of the ARR template for ERTs no later than a week before the start of the review week;

(c) The release and use in reviews of modules 1 ('Reference library') and 2 ('ERT space') of the VTR, with the reference library being available to all ERTs and module 2 being tested on a pilot basis in a centralized review;

(d) The preparation and distribution to LRs and ERTs of a new "Stepwise guide" for conducting the reviews, which presents the typical workflows during the whole review process, and describes in detail the roles of LRs, ERTs, Parties and the secretariat;

(e) The release to Parties of the new CRF Reporter for trial use on 2 October 2012.

[11] <http://unfccc.int/files/national_reports/annex_i_ghg_inventories/review_process/application/pdf/con_rec9.pdf>.

IV. Roster of experts and availability of nominated experts

70. At the date of publication of this report, the roster of experts contained 831 GHG inventory experts, 395 from non-Annex I Parties and 436 from Annex I Parties. From October 2011 to the date of publication of this report, 61 new experts were nominated to the roster, 40 from non-Annex I Parties and 21 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.

71. As a result, a limited number of experts listed on the roster participate currently in the review process. In 2012, a total of 157 individuals from 67 different Parties served as inventory experts on ERTs. Of these experts, 58 were from non-Annex I Parties, 28 were from Annex I Parties with economies in transition and 71 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 (11 experts from non-Annex I Parties and five from Annex I Parties) and in 8 cases they served also as LRs in one of the reviews or in one case the expert 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 the relevant examinations. In conclusion, this last issue means that currently the roster from which the secretariat could select eligible experts to participate in reviews contains potentially 325 experts (see para. 13 above).

72. The LRs at their 9th meeting requested the secretariat and Parties to increase their efforts to ensure that a sufficient number of review experts participate in the 2012 review cycle (see para. 30 above). Following this recommendation, in 2012, the secretariat sent 326 letters of invitation to participate in reviews to 228 experts in total; of these, 66 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, 22 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 in-country review, the secretariat invited 26 experts in total; of these, 16 declined and four informed the secretariat of their willingness to participate in reviews on different dates or on problems with the financial support for their participation; finally, six experts were available to participate in that review. Similar critical cases occurred in other two in-country reviews.

73. In addition, six experts that had previously agreed to participate in the reviews declined to participate at a very short notice, causing a significant challenge for the secretariat in finding replacements and maintaining a geographical balance in the ERTs. In one of these cases, the secretariat invited 15 sectoral experts to replace the expert that declined, however all of them also declined and the secretariat had to consider cancelling an in-country review because it would have been impossible to cover a specific sector without

an expert.[12] In another case, in a centralized review, the remaining new industrial processes expert was supported by two experts participating as desk reviewers, each performing the review of a Party. In three cases, the experts that declined their participation accepted to perform their tasks as desk reviewers and in the last case, in an in-country review, it was not possible to find a replacement or an expert available to perform review tasks as desk reviewer. Overall, these issues affected negatively, and increased the difficulty of, the planning and conformity of ERTs by the secretariat for the 2012 review cycle. This affected also the timeliness for the preparation of the reviews by experts.

74. At the same time, these issues impacted the completeness of ERTs and the ensuring of their proper geographical balance. For example, for one centralized review, the secretariat invited 23 experts in total; of these, eight declined and three informed the secretariat of their willingness to participate in reviews on different dates; finally, only 12 experts were available to participate in that review supported by two desk reviewers, instead of the expected 14 ERT members, including an additional LULUCF expert. Overall, one in-country review and three centralized reviews had to conduct the review tasks with incomplete teams, not taking into account that two in-country reviews and two centralized reviews had desk reviewers performing the review tasks during the review week (see para. 73 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 2013 reviews and issue an earlier call for the availability of experts, as it was made for the 2012 review cycle. However, such measures can help only if experts are available and respond positively to invitations in 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.

75. 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. Owing to the lack of available review experts, there were three energy sector experts in five of the eight centralized reviews conducted in 2012 and, in one of these, three new energy experts participated along with an experienced reviewer. 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 2012 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.

76. At their 9th meeting, LRs requested the secretariat to continue to take into account the need for the smooth integration of new reviewers into the work of ERTs when planning the teams' composition (see para. 63 above). Following this recommendation, in 2012, the secretariat was able in five of eight centralized reviews to reinforce ERTs with new review experts, owing, in general, to the lack of available experienced review experts and particularly a sufficient number of experts able to guide and train new experts in the review tasks. However, new experts participated in all eight centralized reviews in most of the cases assuming full responsibility as reviewers. In 2012, 38 new review experts who had taken the training courses and passed the examination were involved in the reviews.

77. The secretariat continues to make an online form available on the UNFCCC website[13] to facilitate the nomination of experts to the roster and the updating of the list of

[12] The problem was resolved at the last minute by one expert making herself available, with the approval of her government but the risk of review cancellation was high.

[13] <http://unfccc.int/files/parties_and_observers/roster_of_experts/application/msword/roster

nominees by a Party. At the same time, it continues to process the nominations of experts received via e-mail and fax to further facilitate nominations by Parties. The secretariat also continues to invite Parties to update the roster and to nominate new experts periodically and has improved the accessibility and user-friendliness of the roster web pages and the training programmes on the UNFCCC website.[14] During 2010 and 2011, this important task was performed twice a year and, in 2012, through individual letters the secretariat three times invited Parties to do so, including twice in connection with the organizing of training courses for new review experts of GHG inventories.

V. Training of experts

78. 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 for which Annex I Parties report 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.

79. 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 training courses on the UNFCCC website[15] and through other electronic means, such as the secretariat's newsletter. In 2012, the secretariat contacted and/or invited almost all experts nominated to the roster since January 2010 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

80. 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

_nomination_2006new.doc>.

[14] <http://unfccc.int/national_reports/annex_i_ghg_inventories/inventory_review_training/items/2763.php>.

[15] See footnote 14 above.

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 and the 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 and 2012.

81. The secretariat held two rounds of instructed online courses in 2012. The second round taking place owing to major contributions to supplementary funding by Belgium, the European Union, Finland, Japan, New Zealand, Norway, Portugal, Romania, Sweden, Switzerland and the United Kingdom of Great Britain and Northern Ireland. The first course took place between 5 March and 16 April 2012 and the second course is taking place between 10 September and 23 October 2012. 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, (17–19 April 2012) and the second being held also in Bonn (24–26 October 2012). 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.[16]

82. 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 2012, a total of 250 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, 33 experts participated in the final training seminar and 24 experts passed the examinations. In the second course, 38 experts registered to participate during the online instructed period and, of these, 26 experts are expected to participate in the final training seminar and take the examinations. The results of the examinations will be available in November 2012. During the second instructed course, which focused on the training of experts from Latin American and Caribbean countries, a large number of experts from Brazil participated. These training courses are helping to strengthen the review process and will help all countries involved to enhance their capabilities in preparing GHG inventories.

83. 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 2012, 11 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.

84. 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

[16] <https://unfccc.int/secretariat/employment/consultancy.html>.

and have requested access to the course. To date, 19 experts have passed the optional examination.

85. In 2012, the secretariat organized a half-day refresher seminar in conjunction with the 9th meeting of LRs on good practice approaches to the inventory issues identified during the review process, in which 38 experienced experts participated (see para. 25 above). The main objective of this seminar was to refresh the knowledge of review experts and to enhance their common understanding of and approaches to the different steps of the review process, which became more complex and resource intensive in recent years, including the performance of particular aspects of the review cycle, such as the identification of potential problems and the assessment of underestimations of emissions or overestimations of removals during the review week; the preparation of the review reports, including interaction with the Party; and participation in the expert hearing of the Compliance Committee. Therefore, reviewers would benefit from a refresher seminar that addresses these issues and difficulties as presented by the reviews, and provides additional guidance for review experts on 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 9th 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

86. 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.

87. At its twenty-seventh session, the SBI requested the secretariat[17] to develop two new training courses under the Kyoto Protocol, covering activities under Article 3, paragraphs 3 and 4, and the modalities for the accounting of assigned amounts, in particular in relation to the national registry, including the standard electronic format. The secretariat developed these training courses during 2009 and, in the same year, started to offer them online for experienced and new experts.

88. By decision 8/CMP.5, the Conference of the Parties serving as the meeting of the Parties to the Kyoto Protocol 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 to three times a year due to the limited number of participants. All courses are available, without an instructor, to trainees throughout the year.

89. 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

[17] FCCC/SBI/2007/34, paragraph 100.

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: national systems, the 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 the review of activities under Article 3, paragraphs 3 and 4, of the Kyoto Protocol.

90. 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 2010, 2011 and 2012, 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

91. Support to the reporting and review processes requires a number of information technology (IT) 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.

92. In 2012, Annex I Parties continued their annual reporting on GHG inventories and for Annex I Parties that are also Parties to the Kyoto Protocol, 2012 marked the third 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.

93. At the date of publication of this report, in 2012 Annex I Parties made 67 submissions of their GHG emission inventories using the CRF (63 submissions were accepted by the secretariat) and 46 submissions of their standard electronic format (SEF) 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.

94. The secretariat continued to ensure during 2012 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 a major release in March 2012 of GHG inventory data through the GHG data interface. Another release is planned for November 2012 where the secretariat introduces unit parameters to the simple query pages; in addition, the release contains minor bug fixes.

95. 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.

96. To support the current and the upcoming review cycles the secretariat is developing a VTR. The VTR software will be delivered in three modules. Modules 1 and 2 have already been delivered for the use of ERTs, while module 3 is foreseen to be developed by the end of November 2012. 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.

97. Finally, the secretariat is working towards a planned release of the CRF Reporter software with minor changes in December 2012. This will not adversely affect the timely preparation by Parties of GHG inventories and their submission in 2013. The secretariat continued to support the expert review process by maintaining and generating reports and tools that underpin the process. The Recalculation Data Analysis Tool and the Submission Comparison Tool provided in 2011 were further developed and refined. Some additional tools were created, such as the Notation Key Finder Tool and the EU-15 Aggregation Tool. 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.

98. In November 2012, the secretariat will released a trial version of the new CRF Reporter system. The main functionalities of CRF Reporter will be: input of data into a CRF Reporter database by members of the national system (manually, import of data in XML and Excel formats); generation of CRF tables and submission files; and execution of standard tests and data checks. The new CRF Reporter will use modern, state of the art IT technologies; it will add more functionality compared with the existing version of the CRF Reporter where needed (such as the possibility of importing/exporting Excel sheets or the graphical representation of data); and it will be a centralized web based system rather than a desktop application. Furthermore, the new software will support the Revised UNFCCC Annex I inventory reporting guidelines, including relevant provisions from the 2006 IPCC Guidelines.