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Current review processes under the Convention and the secretariat's experience with coordinating reviews of national communications and national greenhouse gas inventories

Technical paper

Summary

This technical paper outlines the existing reporting and review guidelines, and processes for the national communications and national greenhouse gas (GHG) inventories of Parties included in Annex I to the Convention. It also provides information on the secretariat's experiences in coordinating the reviews of national communications and national GHG inventories, including the achievements, main challenges and possible solutions of such reviews.

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I. Introduction

A. Background and mandate

1. The Conference of Parties (COP), by decision 1/CP.16, decided that developed country Parties should enhance their reporting in national communications (NCs) and submit biennial reports (BRs), which outline the progress made in achieving emission reductions and the provision of financial, technological and capacity-building support to Parties not included in Annex I to the Convention (non-Annex I Parties), building on existing reporting and review guidelines, processes and experiences. The COP also decided on a work programme, building on existing reporting and review guidelines, processes and experiences, covering, inter alia, the revision of guidelines for the review of national communications, including the biennial report, annual greenhouse gas (GHG) inventories and national inventory systems (hereinafter referred to as the review guidelines).

2. By decision 2/CP.17,¹ the COP further decided to establish a work programme on the revision of the review guidelines under the Subsidiary Body for Scientific and Technological Advice (SBSTA), with a view to concluding the revision of the review guidelines no later than COP 19.²

3. At its thirty-sixth session, the SBSTA initiated its consideration of the work programme mentioned in paragraph 2 above and agreed that in revising the review guidelines, Parties should take into account experience in the reporting and review of information under the Convention and the need to have a cost-effective, efficient and practical review process that does not impose an excessive burden on Parties or the secretariat.³ The SBSTA also requested the secretariat to prepare a technical paper summarizing the current review processes under the Convention and the secretariat's experience in coordinating reviews of NCs and annual GHG inventories of Parties included in Annex I to the Convention (Annex I Parties) for consideration at SBSTA 37.⁴

B. Scope and structure of the paper

4. Both the Convention and its Kyoto Protocol contain a number of provisions relating to the reporting and review of information on Parties' actions towards a reduction in GHG emissions, and other actions in relation to the implementation of the provisions of the Convention and the Kyoto Protocol. This technical paper, prepared in response to the mandate referred to in paragraph 3 above, focuses on the existing processes and practices of reporting, and the review of information submitted by Annex I Parties under the Convention. However, as reporting and review under the Kyoto Protocol are closely linked to the corresponding processes under the Convention, and are perceived to be more rigorous compared with those under the Convention given their compliance implications, a short discussion on the existing reporting and review guidelines, processes and experiences under the Kyoto Protocol is also included in this document.⁵

¹ Decision 2/CP.17, paragraph 28.

² According to decision 2/CP.17, paragraphs 13 and 14, and decision 9/CP.16, paragraph 5, developed country Parties shall submit their first BR and sixth NC by 1 January 2014.

³ FCCC/SBSTA/2012/2, paragraph 71.

⁴ FCCC/SBSTA/2012/2, paragraph 72.

⁵ Note that negotiations are ongoing under the SBSTA with regard to the implications of the implementation of decisions 2/CMP.7 to 5/CMP.7 on the previous decisions on methodological issues related to the Kyoto Protocol, including those relating to Articles 5, 7 and 8 of the Kyoto Protocol,

5. This technical paper is divided into five chapters. Chapter I provides information on the background, mandate and scope of the document, while chapter II provides an overview of the existing reporting and review guidelines and processes for NCs and national GHG inventories under the Convention. In chapter III, the existing reporting and review guidelines and processes under the Kyoto Protocol are discussed briefly. Chapter IV discusses the secretariat's experiences in coordinating the reviews of NCs and national GHG inventories both under the Convention and the Kyoto Protocol. The achievements, main challenges and possible solutions in this regard are discussed in the light of the new reporting and review requirements under the biennial reporting and international assessment and review (IAR) defined by decision 1/CP.16. This paper concludes with chapter V in which the implications of the identified challenges for the revision of the review guidelines are discussed briefly.

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

6. The SBSTA at its thirty-seventh session may wish to consider this paper in its considerations of agenda item 11(b) on the "Work programme on the revision of the guidelines for the review of biennial reports and national communications, including national inventory reviews, for developed country Parties".

II. Reporting and review processes under the Convention

7. A number of decisions and guidelines underpin the operationalization of the reporting and review requirements under the Convention and the Kyoto Protocol, which are primarily applicable to Annex I Parties (see annex I). Most of these guidelines are technical in nature, extensive in scope and complex in content, which reflects the complexity of the existing reporting and review processes under the Convention and the Kyoto Protocol for Annex I Parties.

8. This chapter provides an overview of the existing reporting and review guidelines and processes for NCs and national GHG inventories under the Convention.

A. Current reporting and review processes for national communications

9. According to Article 4, paragraphs 1 and 2, and Article 12 of the Convention, Parties are required to prepare and submit national communications and national GHG inventories to the COP. For Annex I Parties, national communications contain information on national GHG emissions, climate-related policies and measures (PAMs), GHG projections, vulnerability and adaptation to climate change, financial resources and technology transfer to developing country Parties, and information on research and systematic observations and education, training and public awareness on climate change. Annex I Parties prepare their NCs and submit them periodically every four to five years according to reporting guidelines and time frames adopted by the COP.⁶ To date, Annex I Parties have submitted five NCs with the sixth NCs being due on 1 January 2014.⁷

10. NCs are reviewed, within one to two years of the submission due date, by international expert review teams (ERTs) following specific mandates contained in COP

which largely deal with reporting and review under the Kyoto Protocol.

⁶ Decision 4/CP.5.

⁷ Decision 9/CP.16.

decisions,⁸ including the general procedures for review that were adopted in decision 2/CP.1. Members of the ERT are selected by the secretariat from the UNFCCC roster of experts,⁹ the secretariat seeks to ensure an overall balance in the number of experts from Annex I Parties and non-Annex I Parties, and a geographical balance within each team.

11. The purpose of the review by ERTs is to provide a thorough and comprehensive technical assessment of the implementation of the Convention by Annex I Parties, and to ensure that the COP has sufficient information with which to review the implementation of the Convention. The reviews do not constitute a political judgment of an individual Annex I Party's performance or level of effort.

12. The in-depth review of each NC typically involves a desk-based study in preparation for the review and an in-country visit conducted by an ERT, coordinated by the secretariat. The outcome of the review is reflected in an in-depth review report, which is prepared under the collective responsibility of the ERT. The draft report is provided to the Party for comment before its publication on the UNFCCC website and submission to the COP for its consideration. There are exceptions to the in-country visit review format. During the period 2006–2007, recognizing that streamlining of the review procedures was required and in order to ensure the effective use of the resources needed to meet additional review requirements for Annex I Parties that are also Parties to the Kyoto Protocol, the COP requested the secretariat to organize centralized reviews of the fourth national communications, with in-country reviews of the fourth national communications only for those Parties that request one.¹⁰ Furthermore, during the reviews of the fifth national communications, centralized reviews were organized for Parties with annual emissions of less than 50 million tonnes of carbon dioxide equivalent (Mt CO₂ eq).¹¹

13. Periodically, the secretariat prepares compilation and synthesis (C&S) reports on Annex I NCs, which are considered by the Subsidiary Body for Implementation (SBI) and the COP, as the basis of a substantive discussion on the implementation of the Convention by Annex I Parties. The latest C&S reports of the fifth NCs,¹² considered by the SBI at its thirty-fourth to thirty-sixth sessions, have summarized the information reported by Annex I Parties under both the Convention and the Kyoto Protocol. The secretariat also organized side events at several sessions of the subsidiary bodies with a view to enabling Annex I Parties to share their experiences in the reporting and review of their NCs.

B. Current reporting and review processes for national greenhouse gas inventories

1. Overview

14. The reporting and review of GHG inventories under the Convention are intended to enable a technical assessment of Parties' progress in reducing GHG emissions and enhancing carbon sinks. National GHG inventories contain information on GHG emissions, such as activity data (AD), emission factors (EFs) and the methodologies used to estimate these emissions. They are reported annually by Annex I Parties following 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" (hereinafter

⁸ Decisions 2/CP.1, 3/CP.1, 6/CP.3, 11/CP.4, 33/CP.7, 4/CP.8 and 10/CP.13.

⁹ <http://unfccc.int/parties_and_observers/roster_of_experts/items/534.php>.

¹⁰ Decision 7/CP.11.

¹¹ Decision 10/CMP.6.

¹² FCCC/SBI/2011/INF.1.

referred to as the UNFCCC Annex I reporting guidelines)¹³ adopted by the COP,¹⁴ based on methodologies developed by the Intergovernmental Panel on Climate Change (IPCC). A revised set of these guidelines, which incorporates methodologies of the *2006 IPCC Guidelines for National Greenhouse Gas Inventories* (hereinafter referred to as the 2006 IPCC Guidelines), was adopted by decision 15/CP.17. The revised UNFCCC Annex I reporting guidelines will be used on a voluntary basis from October 2012 to May 2013 and mandatorily for all Annex I Parties from the 2015 submission.

15. The annual GHG inventory comprises a national inventory report (NIR) and common reporting format (CRF) tables. The NIR includes quantitative and qualitative information, such as a description of the methodologies used, EFs, AD, recalculations and emission trends and analysis thereof, key categories, uncertainties, and the institutional and procedural arrangements for inventory preparation, including archiving procedures, and quality assurance and quality control procedures. Inventory estimates are submitted electronically, in a standard form, to the secretariat using the CRF tables to facilitate data analysis and comparison. The CRF tables include AD, implied EFs and emission results from inventory estimates. The reported complete estimates for all GHG sources and sinks, as well as a full time series of annual estimates going back to 1990 or a base year,¹⁵ help to assess the consistent use of methodologies and data sources over time, and enable the evaluation of emission trends. The CRF tables and the NIRs for all Annex I Parties as reported are available on the UNFCCC website.¹⁶

16. The national GHG inventories are reviewed annually by ERTs following 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),¹⁷ which were first adopted in 1999 by decision 6/CP.5, and then revised in 2002 by decision 19/CP.8. The UNFCCC review guidelines 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.

17. The technical review of national GHG inventories from Annex I Parties started in 2000¹⁸ in accordance with decision 6/CP.5. On completion of the trial period established in that decision, annual reviews of the individual inventory of each Annex I Party became mandatory in 2003.

18. Reviews of GHG inventories focus on assessing the conformity of the methodologies and data sources used in the preparation of the inventory estimates with the *Revised 1996 IPCC Guidelines for National Greenhouse Gas Inventories* (hereinafter referred to as the Revised 1996 IPCC Guidelines), the *Good Practice Guidance and Uncertainty Management in National Greenhouse Gas Inventories* (hereinafter referred to as the IPCC good practice guidance) and the *Good Practice Guidance for Land Use, Land-Use Change and Forestry* (hereinafter referred to as the IPCC good practice guidance for LULUCF). Individual reviews of GHG inventories are conducted through in-country

¹³ “Guidelines for the preparation of national communications by Parties included in Annex I to the Convention, Part I: UNFCCC reporting guidelines on annual inventories” in FCCC/SBSTA/2006/9.

¹⁴ Decisions 18/CP.8 and 14/CP.11.

¹⁵ FCCC/SBSTA/2006/9, paragraph 8.

¹⁶ <http://unfccc.int/national_reports/annex_i_ghg_inventories/national_inventories_submissions/items/6598.php>.

¹⁷ FCCC/CP/2002/8.

¹⁸ The submissions were made in 2000 with the reviews being conducted in 2001.

reviews, centralized reviews, and desk reviews. In accordance with the UNFCCC review guidelines, at least once in five years, the review of a Party's GHG inventory should be conducted through an in-country review. This type of review enables a more thorough examination of a Party's methodologies and assumptions, AD, EFs and documentation, and its institutional and procedural arrangements, including its archiving procedures. Although the UNFCCC review guidelines include desk reviews of GHG inventories, this option has not been used in recent years, because of the difficulty in coordinating ERTs at different locations and the low quality of the resulting review reports.

2. Review process

19. The inventory review process, following the provisions of decision 19/CP.8, is conducted in three stages: initial check; synthesis and assessment, consisting of parts I and II; and individual review. After each stage of the review process, the Party under review has an opportunity to comment on the different draft reports (status report, synthesis and assessment parts I and II, and individual review report). The timelines for preparing these reports and providing comments are established under the UNFCCC review guidelines.

20. The initial check of the annual GHG inventory submissions is conducted by the secretariat and provides an immediate assessment of the completeness of the inventory submission and the correctness of its format.

21. Part I of the synthesis and assessment stage is prepared by the secretariat and compiles and compares basic inventory information across Annex I Parties and over time, such as methodologies, AD and implied EFs. It also compares AD with international sources. The results of part I are published on the UNFCCC website as the synthesis and assessment part I report. Part II is also conducted by the secretariat, and provides a preliminary individual assessment of the inventory of each Party. It identifies any potential inventory problems, including recurring issues and issues regarding recalculations and consistency of time series data. These problems are then explored during the individual review stage by the ERT, together with the comments provided by the Party. Part II of the synthesis and assessment stage is not made publicly available.

22. The last stage, the annual individual review, is conducted by an ERT. The secretariat selects experts for these teams from the UNFCCC roster of experts, seeking to ensure a geographical balance and a balance in the number of experts from Annex I Parties and non-Annex I Parties. In general, each team comprises a generalist who covers cross-cutting inventory issues and one or two experts for each inventory sector: energy, industrial processes, agriculture, LULUCF and waste. Each team has two lead reviewers, one from a non-Annex I Party and one from an Annex I Party. For centralized reviews, the secretariat usually invites two generalists and two to three review experts to cover a sector, given that four to five Parties are being reviewed in a centralized setting. For in-country reviews, each team normally has six review experts, one for each sector and one generalist. The outcome of the review is reflected in the annual review report, which is prepared under the collective responsibility of the ERT. The draft report is provided to the Party under review for comments before it is published on the UNFCCC website.

3. Activities to support the inventory review process

23. Lead reviewers 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 lead reviewers to promote a common approach by ERTs to the 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. Recommendations resulting from meetings of lead reviewers are included in an annual

report prepared by the secretariat for consideration by the SBSTA. The conclusions and recommendations arising from these meetings are used as further guidance by ERTs during the reviews. From 2003 to the present, nine lead reviewers' meetings have been held. The conclusions and recommendations from these meetings are available on the UNFCCC website.¹⁹

24. The training of experts for GHG inventory reviews under the Convention and the annual reviews under the Kyoto Protocol has been one of the mainstream activities undertaken by the secretariat in relation to the review process. It has greatly contributed to the quality, rigour and consistency of the review process. The review experts from both non-Annex I Parties and Annex I Parties usually return to their home country with a wealth of experience from the review process that in turn helps their countries to enhance the quality, completeness and consistency in their own reporting activities. The 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, as they usually do not work on inventories on a daily basis. There are currently no requirements for the training of experts participating in the review of national communications.

25. The secretariat offers online training courses for experts on the technical review of GHG inventories from Annex I Parties.²⁰ The training programme has been updated over time to reflect developments made in GHG inventories and experience gained in the review process. It organizes instructor-led training of experts annually that concludes with a training seminar and examination. Only experts who successfully pass the examination can participate in the inventory reviews.

26. The training programme under the Convention comprises two main elements. Firstly, the basic course, which covers general aspects of the GHG inventory reviews and specific aspects of the review of the five IPCC sectors. This basic course is offered as an instructor-led course once or twice a year, if resources permit, including a training seminar, or as a non-instructed online course throughout the year. Secondly, in 2009, the secretariat updated the training programme²¹ for the period up to 2014 to include training courses and regional seminars for new review experts and a new training module on the review of higher-tier methods and complex models, and activities relevant to the training needs of experienced inventory review experts, such as refresher seminars conducted in conjunction with the lead reviewers' meetings. The refresher seminars focus on the most complex issues for the review and aim to better prepare the experienced reviewers for the tasks that lie ahead of them. To date, the secretariat organized three refresher seminars for experienced reviewers in conjunction with the meeting of lead reviewers offered in 2010, 2011 and 2012. The first seminar covered the review of information reported under Article 3, paragraphs 3 and 4, of the Kyoto Protocol, the second covered the review of complex models and higher-tier methods and the last covered the good practice approaches to inventory issues identified during the review process.

III. Current reporting and review processes under the Kyoto Protocol

27. The reporting requirements for Annex I Parties that are also Parties to the Kyoto Protocol under the Kyoto Protocol require information additional to that required under the Convention to enable assessment of an Annex I Party's compliance with its commitments

¹⁹ <http://unfccc.int/national_reports/annex_i_ghg_inventories/review_process/items/2762.php>.

²⁰ Annex I to decision 12/CP.9.

²¹ Decision 10/CP.15.

under the Kyoto Protocol. Reporting under the Kyoto Protocol is guided by the “Guidelines for the preparation of the information required under Article 7 of the Kyoto Protocol”.²²

28. Parties are required to report additional information related to the implementation of the Kyoto Protocol in the annual GHG inventory reports and national communications submitted under the Convention. For NCs, this additional information includes the following:

- (a) A description of the national system;
- (b) A description of the national registry;
- (c) An explanation of how the Party’s use of the Kyoto Protocol mechanisms is supplementary to domestic action(s);
- (d) Information on the Party’s implementation of PAMs under Article 2 of the Kyoto Protocol;
- (e) A description of the Party’s domestic and regional legislative arrangements, and enforcement and administrative procedures;
- (f) Technology transfer, capacity-building, research and cooperation, and other activities under Article 10 of the Kyoto Protocol;
- (g) Financial resources.

29. For annual GHG inventories, the supplementary information covers the following:

- (a) Improvements of estimates in areas of the GHG inventory that have been previously adjusted;
- (b) Information on and estimates of emissions and removals from land use, land-use change and forestry activities under Article 3, paragraphs 3 and 4, of the Kyoto Protocol, including the accounting of these amounts to be added or subtracted from the assigned amount;
- (c) The Party’s holdings and transactions of Kyoto Protocol units;
- (d) Changes to the Party’s national system;
- (e) Changes to the Party’s national registry;
- (f) Information on the Party’s implementation of its commitment to strive to minimize the adverse social, environmental and economic impacts of its climate change mitigation actions on developing country Parties (i.e. information on Article 3, paragraph 14, of the Kyoto Protocol).

30. In addition to the annual supplementary information required under the Kyoto Protocol, for the first commitment period, Annex I Parties that are also Parties to the Kyoto Protocol had to submit two additional one-off reports, namely the demonstrable progress report²³ in the context of Article 3, paragraph 2, and the initial report.²⁴ A separate report

²² Annex to decision 15/CMP.1.

²³ Under the Kyoto Protocol, each Annex I Party shall “have made demonstrable progress in achieving its commitments” under the Kyoto Protocol by 2005.

²⁴ Initial reports for the first commitment period had to be submitted by Annex I Parties by 31 December 2006 or one year after the entry into force of the Kyoto Protocol for the Party, and contained information on a complete GHG inventory time series, the Party’s calculation of its assigned amount and commitment period reserve, a description of the national system and the national registry, and parameters related to the accounting of LULUCF activities under Article 3, paragraphs 3 and 4, of the Kyoto Protocol. These reports were subject to review under the provisions of Article 8 of the Kyoto Protocol. The successful outcome of this review led to the establishment of a

covering the report upon the expiration of the initial period for fulfilling commitments (otherwise known as the ‘true-up period’)²⁵ should be submitted for that period. The true-up period report, due at the end of the true-up period, is intended to support the determination of the Party to comply with its commitment to Article 3, paragraph 1, of the Kyoto Protocol. This report must contain final information on the aggregated GHG emissions for the commitment period, and the additions to and subtractions from the assigned amounts of Kyoto Protocol units, including all units retired for compliance purposes.

31. Reviews under the Kyoto Protocol are guided by the “Guidelines for review under Article 8 of the Kyoto Protocol” (hereinafter referred to as the Article 8 review guidelines).²⁶ The Kyoto Protocol review processes are integrated with those under the Convention, so that an Annex I Party that is also a Party to the Kyoto Protocol undergoes a single review process for both the Convention and Kyoto Protocol requirements.

32. The review process under the Kyoto Protocol is more rigorous than that under the Convention and is complemented by the compliance system established under the Kyoto Protocol that deals with non-compliance with commitments under the Kyoto Protocol. In particular, if the ERT identifies a problem pertaining to language of a mandatory nature in the guidelines that influences a Party’s fulfilment of its commitments, which is not resolved during the review process, the ERT has to list the problem as a “question of implementation” in its final review report. The Compliance Committee, established under the Kyoto Protocol and dealing with the compliance system, includes both a facilitative branch and an enforcement branch. All review reports, including those that do not list any questions of implementation, are forwarded to the Compliance Committee which then allocates them to the appropriate branch for consideration.²⁷

33. Questions of implementation relating to the methodological and reporting requirements for GHG inventories identified through the review processes are considered by the enforcement branch of the Compliance Committee. Consideration of compliance by the enforcement branch in relation to any unresolved question of implementation identified by ERTs in the annual review reports can lead to the suspension of a Party’s eligibility under the Kyoto Protocol mechanisms (emission trading, clean development mechanism (CDM) and joint implementation) until the matter has been resolved.

34. In contrast to ERTs under the Convention, those under the Kyoto Protocol have specific responsibilities with respect to the accounting of emissions. If an ERT concludes during the review that a Party’s inventory is incomplete, or has been prepared in a manner that is not consistent with the IPCC methodologies, it may recommend the application of an “adjustment” to the emission estimates of the related category. Similarly, adjustments may be applied to a Party’s emission and removal estimates for an activity under Article 3, paragraphs 3 and 4, of the Kyoto Protocol. In addition, ERTs are responsible for assessing

Party’s eligibility to participate in the mechanisms established under Articles 6, 12 and 17 of the Kyoto Protocol.

²⁵ Decision 13/CMP.1.

²⁶ Annex to decision 22/CMP.1.

²⁷ The reporting guidelines under Article 7 of the Kyoto Protocol require Parties to report in their NCs information on their national systems and national registries. If potential problems are identified during the review in relation to this information, questions of implementation indicated in the review reports in relation to a Party’s national system or national registry will be considered by the enforcement branch. However, reporting information on the national system and national registry is also a requirement for the annual reports. Due to the nature and frequency of the annual reviews, potential problems in relation to the national system and national registry have been identified during the annual reviews and not the periodic reviews of NCs. The facilitative branch is mandated to provide advice and facilitation to Parties in implementing the Kyoto Protocol. It may also provide “early warnings” of potential non-compliance with emission targets.

reported information on holdings of Kyoto Protocol units and on their transactions, and if an ERT identifies a problem with a particular transaction, it may recommend a “correction” to the accounting of Kyoto Protocol units.

35. Similar to the practice under the Convention, the secretariat has prepared training courses for review experts serving the reviews under the Kyoto Protocol, which cover national systems, application of adjustments under Article 5, paragraph 2, of the Kyoto Protocol, modalities for the accounting of assigned amounts, review of national registries and information on assigned amounts and review of activities under Article 3, paragraphs 3 and 4, of the Kyoto Protocol. Only experts who successfully pass the mandatory examinations can participate in the annual reviews under the Kyoto Protocol.

IV. Secretariat’s experiences in coordinating the reviews

A. Achievements

36. In general, the reporting and review processes under the Convention function well and have demonstrated significant positive results in recent years. This is owing to a solid legal and regulatory basis and over 10 years of experience that has helped to shape the process and establish robust practices. Over the years, the completeness, transparency and consistency of the information reported by Annex I Parties in their NCs and annual GHG inventories has been enhanced in a substantial way and these two reports have become the main source of information for reviewing the implementation of the Convention by these Parties.

37. The strong focus on GHG inventories under the Convention in the international process over the past decade, the potential consequences for non-compliance under the Kyoto Protocol,²⁸ and the robust review process have helped to ensure that the inventories of Annex I Parties are widely regarded as mostly complete, and highly robust and reliable. The inventories are based on the methodological guidance provided in the Revised 1996 IPCC Guidelines, the IPCC good practice guidance and the IPCC good practice guidance for LULUCF so the accuracy and comparability of the estimates are maximized.

38. The completeness, accuracy and reliability of inventory estimates are also attributed to the well-established review process supported by the conclusions and recommendations of lead reviewers’ meetings, which help to ensure the consistency of the reviews and to improve their procedures, training of review experts, and the development of the GHG information system and the review tools and templates by the secretariat.

39. In addition, the link to the eligibility for participation in the Kyoto Protocol mechanisms provides a strong incentive for compliance with reporting requirements, while the link between the review process and the compliance process ensures that any deficiencies identified will be addressed within a short period of time.

40. Even though the reporting and review guidelines for NCs are not as elaborate as those for national GHG inventories and remained broadly unchanged during 1996–1999,²⁹

²⁸ As at 29 October 2012, the enforcement branch had considered the question of implementation with respect to eight Annex I Parties.

²⁹ Decision 2/CP.1 contains the procedure, purposes and tasks for the review of the first national communications from Annex I Parties. Decision 9/CP.2 contains the reporting guidelines for national communications from Annex I Parties, the schedule of submission for the second national communications and the process of consideration (reviews) following the relevant decision (decision 2/CP.1). Decision 4/CP.5 contains the most recent “Guidelines for the preparation of national

with more than a decade of experience, the review process and procedures for NCs have also been well established. Similar to the inventory reviews, the review process for NCs has significantly improved over time, with the approach to the reviews fine-tuned and key milestones set for each stage of the review process. Various review tools and templates have been prepared by the secretariat to assist ERTs in performing the review tasks and to help to achieve consistency across the reviews. The secretariat also strives to ensure that the roles and responsibilities of Parties, ERTs and the secretariat are transparent and well understood by each of these key actors in the process. The work of the secretariat in preparing the compilation and synthesis reports on NCs provides a comprehensive summary of the efforts made by Annex I Parties in mitigating GHG emissions and in implementing the other commitments under the Convention, and areas that can be further improved in this endeavour.

41. The review process has also been developed to allow for flexibility in streamlining the process especially when there are competing tasks for Parties in terms of reporting and review and where efficiency gains can be achieved without compromising the rigour of the review process. For example, centralized reviews were organized during the period 2006–2007 for the fourth NCs. Centralized reviews were also organized for Parties with total GHG emissions of less than 50 Mt CO₂ eq during the review of the fifth NCs.

B. Challenges

42. Despite the achievements described above, the secretariat has encountered significant challenges in supporting the reporting and review processes for Annex I Parties under the Convention and the Kyoto Protocol. There are substantial issues that need to be resolved to ensure the sustainability of the reporting and review processes over time.³⁰ Firstly, the implementation of existing reporting and review process are extremely resource-intensive procedures, and have resulted in increasing pressure on Parties, experts and the secretariat in recent years. This will become particularly obvious in the context of the increased reporting and review obligations, which will commence in early 2014. According to decision 2/CP.17, developed country Parties shall submit their first biennial reports on 1 January 2014, which shall outline the progress made in achieving emission reductions, and the provision of financial, technological and capacity-building support to non-Annex I Parties. The first round of the newly established IAR process will commence immediately after the submission of the biennial reports. The upcoming mandatory biennial reports and the newly established IAR process will necessitate greater resources and efforts for Parties, experts and the secretariat in the context of reporting and review. This should be factored into future timetables, budgets and training of experts. Secondly, there are challenges at a substantive level that relate to the evolving role of reporting and review processes in the post-2012 regime, and the specificity and clarity of the existing guidelines in supporting this evolving role.

Limited expert resources and contribution to reviews

43. One of the greatest challenges of managing the review process is the severe shortage of available experts with the necessary expertise and experience to conduct the review. Compared with the 2010 review cycle when 165 experts participated in the GHG inventory review activities, the number of experts decreased by 24 per cent in 2011 with only 126

communications by Parties included in Annex I to the Convention, Part II: UNFCCC reporting guidelines on national communications”.

³⁰ A number of these issues have been raised during the lead reviewers meetings and are reflected in the conclusions and recommendations of these meetings, available at <http://unfccc.int/national_reports/annex_i_ghg_inventories/review_process/items/2762.php>.

experts participating in the reviews. The incompleteness of review teams made it difficult to ensure the timeliness of deliverables³¹ by the ERTs, including review reports, and the quality of these review reports. Due to the small pool of experts, some have to participate in more than one review in each review cycle, putting an additional and unexpected burden on them.

44. The limited number of experts available for the reviews also makes it difficult to ensure proper geographical balance and balance in expertise within the review teams, and to ensure a sufficient number of experts in the inventory review teams for the reviews of complex sectors, such as energy and LULUCF. For example, in the 2011 review cycle of GHG inventories, it was not possible to have a sufficient number of experts for the review of the energy sector in centralized reviews, which is a complex and labour intensive sector for review. This puts additional pressure on the experts and may influence the quality, timeliness and level of detail of the review.

45. The fundamental cause of the shortage of experts is the voluntary nature³² of expert participation in the review process, and the mandatory nature of the review process together with related high expectations for expertise, timeliness and the quality of expert inputs. During the review process, experts are expected to provide analytical inputs on substantive issues and to draft the review reports. However, these expectations cannot be fully met in many cases for a number of reasons. Firstly, due to the voluntary nature of expert participation, it is not easy for the secretariat to engage a sufficient number of experts to conduct the review process. Secondly, most experts do not necessarily have enough time to prepare in advance for the review, and even during the review week many of them are requested to perform, in parallel with the review, tasks related to their main jobs. As many experts are also negotiators, when the review process overlaps with negotiation sessions, these experts usually set their priorities to tasks associated with negotiations. Thirdly, as mentioned earlier, apart from the GHG inventory review and specific supplementary information under the Kyoto Protocol, experts do not receive special training on how to undertake review activities for NCs and upcoming biennial reports according to the current review guidelines. Finally, not all of the experts are fully fluent in English and even those that are, in general are not trained to draft official United Nations documents (e.g. review reports); their expertise is focused on complex technical issues mainly related to GHG inventories.

46. The lack of financial incentive, combined with the large volume of review work and the time pressure on experts, especially when deadlines clash with those of their own jobs, have resulted, over the last few years, in a decreased acceptance of invitations to participate in reviews or a low-quality input by experts to the reports, and there have been cases where experts from Annex I Parties have requested funding from the secretariat to cover travel costs. It seems certain that the lack of availability of experts will become a major issue if the current reporting and review processes are expanded.

47. In addition, the overall pool of experts that are active in the field is relatively small. The UNFCCC roster of experts, currently in place, caters, inter alia, to the needs of the review of NCs and annual GHG inventories for Annex I Parties. To date, it contains 1,089 nominated experts from 150 Parties, with 521 experts from non-Annex I Parties and 568

³¹ These deliverables include, in the context of GHG inventory reviews under the Kyoto Protocol, drafting papers with preliminary findings from a review (informally known as ‘Saturday papers’) during the review week, assessing and applying adjustments, and communicating with Parties throughout the review process.

³² In the current review processes, expert participation is considered to be an in-kind contribution by Parties to the UNFCCC process. Experts from Annex I Parties are supported by their governments while experts from non-Annex I Parties are supported by the secretariat from the core budget and if mandated, from supplementary funds, in the form of travel costs and a daily subsistence allowance.

experts from Annex I Parties. Despite the seemingly large number of experts in the roster, the secretariat has already experienced difficulty in engaging experts to take part in the existing NC and annual GHG inventory reviews for three main reasons: (a) some of the nominated experts would require mandatory training and/or the passing of mandatory examinations to be able to effectively participate in reviews; (b) only a limited number of experts listed on the roster may participate in review activities as for many Parties, the list has not been recently updated despite the reminders from the secretariat; and (c) a great number of experts do not have sufficient time to devote to reviews as they are involved in multiple activities in their countries.

Increasing pressure on secretariat support

48. The secretariat plays a central role in the coordination of the review process, including in preparing review materials, facilitating and guiding review preparations and implementation, and assisting with the preparation of the review reports. Currently, the secretariat coordinates the reviews of the NCs of 42 Annex I Parties every four to five years and the GHG inventory reviews of 43 Annex I Parties annually.³³

49. Key activities in the management of the reporting and review process, in the context of the technical review of GHG inventories from Annex I Parties, include the provision of training to experts; planning and conducting of reviews; composing of review teams and ensuring geographical balance and balance of expertise therein; assisting in the preparation of review reports; organizing meetings of lead reviewers and managing their functional requirements; and the development of the various IT systems that service the reporting and review process, including such major systems as the CRF Reporter software, the international transaction log and the compilation and accounting database, including the management of the latter.

50. Similarly, in the context of the in-depth review of the NCs from Annex I Parties, key activities in the management of the reporting and review process include the planning of review activities; composing the review teams and ensuring geographical and subject matter expertise balance therein; conducting reviews; and assisting in the preparation of the review reports. In addition, the secretariat also prepares a number of papers and documents in relation to the methodological aspects of GHG inventory, all aspects covered in the NCs and the economy-wide emission reduction targets of developed country Parties that support the negotiations process in the subsidiary bodies on these matters. The same team at the secretariat also supports negotiations under the Convention at all sessions of the subsidiary bodies and at Compliance Committee meetings.

51. Moreover, the pressure on the Mitigation, data and analysis programme is expected to increase substantially in 2013–2016 even under the current reporting and review requirements, because this team will have to service the additional work required for the completion of the first commitment period under the Kyoto Protocol (CP 1), including the compliance assessment, and the launch of the second commitment period (CP 2), including the reporting and review of assigned amounts for CP 2.

52. Despite the heavy workload, the severe shortage of review experts, complexity of the review tasks and the limited number of staff assigned to the review process, the secretariat managed to coordinate most reviews of both NCs and GHG inventories over the past decade within the required time frame. However, in recent years, especially in 2010 and 2011, the finalization and publication of some annual review reports occurred after the

³³ During the review of the NC5, Malta was not included, since it was not an Annex I Party when the NC5 was due. Malta became an Annex I Party on 26 October 2010, and since then has been submitting its GHG inventory and has become a part of the annual review process. Hence, the difference in the number of Annex I Parties under review for NCs and for annual GHG inventories.

one-year time frame required by the Article 8 review guidelines. This was due to the difficulty in getting timely and appropriate inputs from experts, and the additional challenges arising from adjustment procedures and the processing of additional comments from Parties as required by the guidelines.

53. The considerable demand on the secretariat and the considerable resources required for the review processes were acknowledged by the SBSTA, at its twenty-ninth session, resulting in the SBSTA concluding that more support was required for the processes.³⁴ In the conclusions, the SBSTA invited Annex I Parties to consider supporting the training and review activities by providing sufficient and stable funding, and strengthening the capacity of the secretariat. Indeed, a number of Parties made generous contributions to the supplementary funds for these activities. However, the situation has not improved in a meaningful manner ever since and additional challenges have appeared.

54. With the upcoming biennial reporting and IAR process, the workload will considerably increase for the secretariat staff in handling these reports and coordinating these reviews. The IAR process also envisages the secretariat performing additional tasks, including providing support to the multilateral assessment under the SBI. In addition, the secretariat will be responsible for updating the current technical support tools used for both NC and GHG inventory reviews, developing new tools for the reviews of biennial reports, and providing further and new training to review experts. There is also a need to update the training courses to align them with the revised Annex I inventory reporting guidelines and current and future revisions of the UNFCCC Annex I review guidelines.

55. The significant increase in workload for secretariat staff makes the need to streamline the various review processes (both existing and forthcoming) urgent and extremely important. While the provisions of decision 2/CP.17, paragraph 29, provide a mandate to the secretariat to enhance coordination between different review processes in such a way as to ensure effective and efficient processes and procedures, the most sizeable efficiency gains could be achieved through changes in the existing process that may require further guidance by the SBSTA or the SBI. Some possible solutions to streamline the review processes are discussed in section IV.C below.

Reporting and review in United Nations languages other than English

56. In accordance with the UNFCCC reporting guidelines, Parties can submit the NIRs of their annual submissions in one of the official languages of the United Nations. The UNFCCC reporting guidelines encourage Parties to submit, where relevant, an English translation of the submissions. The need to work with NIRs submitted in a language other than English adds an additional burden on the secretariat to find review experts with knowledge of that language, in addition to English, which is the working language of the secretariat. With the limited number of review experts, especially those with sufficient knowledge of languages other than English, selecting a team capable of working in that other language is a significant challenge. The review becomes limited if the entire review team is not knowledgeable in the language in which the report was submitted as it cannot review the information in depth. There is also the problem of having the same experts repeatedly reviewing the same Parties as the number of experts for particular languages is very limited.

Specificity of existing guidelines

57. With the current system, the reviews of NCs and GHG inventories aim to provide a thorough and comprehensive technical assessment of the implementation of the Convention and the Kyoto Protocol by Annex I Parties based on both quantitative estimates and

³⁴ FCCC/SBSTA/2008/6.

qualitative information reported, and to ensure that the COP/CMP has sufficient information to carry out its responsibilities to review the implementation of the Convention and the Kyoto Protocol. However, the level of specificity of the existing guidelines (for both reporting and review) especially for NC in several instances also does not necessarily allow for a sufficient assessment or verification of the reported information. This is partly due to the lack of standardized methodologies for the reporting and review of information in several parts of the NCs, including on PAMs, GHG emission projections, and financial resources and technology transfer (see paras. 59 and 60 below). There is also some incoherence between issues that are reported under the Kyoto Protocol in the NCs and annual submissions, and those covered in the respective periodic and annual reviews. This includes information on the national system and national registry (see para. 61 below).

58. The role of reporting and review has now been expanded under the Convention to support: (a) the multilateral assessment of the implementation of quantified economy-wide emission reduction targets under the IAR process, which enhances verification,³⁵ and (b) the assessment of the adequacy of the long-term global goal of limiting the increase in global average temperature below 2 °C above pre-industrial levels, and the overall progress made towards achieving it.³⁶ In this context, the levels of specificity and clarity of the current reporting and review guidelines need to be revisited in order for them to be able to support the evolving role of reporting and review.

59. **Methodologies on reporting and review:** Under the Convention and the Kyoto Protocol, Annex I Parties are required to provide detailed information on the PAMs they are implementing to meet their Convention obligations and Kyoto Protocol targets. Parties are required to report quantitative estimates of the effect to date on emissions and estimates of the effect of PAMs on future emissions and removals, where feasible. However, specific standards or metrics for measuring and reporting PAMs have not been established. Furthermore, the reporting guidelines do not require documentation in order to substantiate Parties' estimates of the effects of their measures on GHG levels, such as methodologies used to quantify effects. Consequently, the type and level of information provided varies widely across Parties. The lack of standards for or metrics on reporting PAMs results in a varying level of information provided across Parties and prevents the strict verification of the effectiveness of PAMs. The ongoing work under the SBSTA to develop a common tabular format for the electronic reporting of information according to the reporting guidelines for BRs could help to standardize the reported information but only if the reporting requirements for such formats go beyond those existing for NCs.

60. With regard to reporting on financial resources and technology transfer in NCs, the current reporting guidelines lack a set of methodologies and standards for Parties to report climate finance. There is no common standard to determine the extent to which these resources are specifically dedicated to climate change, and what constitutes "new and additional" financing. Furthermore, Parties included in Annex II to the Convention have difficulty in collecting and reporting information on resources provided bilaterally and through multilateral channels other than the Global Environment Facility. As a result, the scope, format and quality of reporting vary, and therefore the information reported does not allow for credible comparison and evaluation. The Organisation of Economic Co-operation and Development Assistance Committee has developed a reporting standard (the Rio markers)³⁷ to improve the consistency and completeness of Parties' classification and reporting of climate assistance. While use of this standard has been encouraged, it is not required under the Convention or Kyoto Protocol reporting guidelines. The very general nature of Annex II commitments on financial and technology transfer support, and the

³⁵ Annex II to decision 2/CP.17.

³⁶ Decision 2/CP.17, paragraph 161.

³⁷ <<http://www.oecd.org/dac/aidstatistics/48785310.pdf>>.

corresponding vagueness of the reporting guidelines, do not ensure consistent measurement, or allow for the verification of Parties' implementation of these commitments.

61. **Some incoherence between reporting and review tasks:** With the current reporting and review practices under the Kyoto Protocol, problems arise from some incoherence between issues that are reported in the NCs and annual submissions, and issues covered in the respective periodic and annual reviews. In particular, based on the current reporting and review requirements, there is some level of overlap between annual and periodic reporting and review with regard to national systems, national registries and information on the minimization of adverse impacts.³⁸ This overlap in the context of review introduces some confusion regarding the scope and objectives of the periodic and annual review that experts should follow. It causes some practical difficulties for Parties and ERTs, and reduces the efficiency of the reporting and review process. This problem with the existing processes might occur again in future reporting and review under the Convention, especially in the reporting and review of NCs and BRs where there are a number of common areas. Hence, more concrete reporting and review guidelines could help to avoid this potential problem.

C. Possible solutions

62. The challenges and problems identified in the previous subsection need to be addressed in order to ensure the sustainability and rigour of the review process, especially in the light of the evolving role of reporting and review under the Convention, in particular taking into account the increasing tasks under the newly established IAR process. The upcoming reporting and review processes cannot proceed without revisiting the existing practices due to the need to carefully balance the significantly increased volume of work and the visibility of the IAR process with the existing reporting and review process, and a more stringent verification process under the IAR process. An attempt to continue 'business as usual' with the addition of the new processes would risk compromising the integrity of the overall reporting and review processes. The following potential solutions can be considered by Parties in the process of the revision of the guidelines for the review of biennial reports and NCs, including GHG inventory reviews.

Streamlining the review process

63. With a severe shortage of highly competent review experts and an increasing workload under the new reporting and review system, there is an urgent need to streamline the current review process for Annex I Parties in order to achieve efficiency gains without compromising the rigour of the review process. This can be achieved through combining different types of reviews and changes to the format, frequency and procedure of reviews as defined in the review guidelines. Currently, NCs are reviewed every four to five years and GHG inventories are reviewed annually. As from 2014, biennial reports will be reviewed every two years, where relevant, in conjunction with the reviews of GHG inventories and NCs.

64. **Combining different reviews:** although it may be desirable to cover the reviews of GHG inventories, NCs and BRs in a single review, in practice it is difficult to combine the GHG inventory review with the reviews of NCs and BRs. There are several reasons for this

³⁸ For example, regarding the national registry, full reporting is required for the initial report and national communication, while only changes to the national registry are required to be reported in the annual reports. A thorough review is required during the initial and periodic reviews, while a review of changes is required in conjunction with the annual review.

in relation to the substance and the timing of the submission of the GHG inventories in comparison to NCs and BRs.

65. Firstly, the substance, scope and focus of GHG inventories and NCs/BRs are very different. While the GHG inventories provide quantitative information on a Party's level of emissions and removals, the NCs/BRs focus more on the policy aspect of climate change related activities and on the progress of a Party in achieving its emission reduction targets. Secondly, the GHG inventory information contained in NCs/BRs is from the NIR of the previous year, which was already reviewed during the GHG inventory review in the previous year. Thirdly, the schedule of these reviews differs based on established procedures and processes. The annual reviews are triggered by the annual GHG inventory submission on 15 April each year and begin with preparatory stages that involve extensive cross-country comparisons and comparisons with an authoritative source of information. Then, the individual review stage of the reviews normally takes place starting in late August and continuing all September each year during a five- to six-week period (see paras. 19–22 above). In contrast, the reviews of NCs/BRs are scheduled to commence two months after the submission of these reports, which is normally at the beginning of the reporting year, and should be completed within two years.

66. Even if the schedule for NC/BR reviews can be adapted to coincide with the GHG inventory reviews, the secretariat and expert resources would not be sufficient to support the reviews of GHG inventories, NCs and BRs of all Annex I Parties within a five- to six-week time frame needed for the individual GHG reviews. In addition, the area of expertise of inventory experts is different to that of the experts involved in the national communications.

67. It appears feasible, however, to organize BR reviews in conjunction with the reviews of NCs, given that most of the sections in the BR are closely linked to those in the NC, the submission dates are synchronized and the area of expertise of reviewers is the same for both reports.

68. **Format of reviews:** applying the same review requirements with the same frequency to Parties of significantly different size may not be efficient and cost-effective, even though all Parties have the same legal status under the Convention. As mentioned earlier, precedents have already been set within the existing review processes where reviews were conducted in a simplified format for economies of small scale, that is centralized reviews were organized for Parties with annual emissions of less than 50 Mt CO₂ eq. during the reviews of the NC5s. This practice could be introduced in a consistent manner across all reviews. Guidance would be needed on the format for the review on the basis by which reviews might be simplified, and the periodicity for in-depth in-country reviews for Parties undergoing the review specified (see para. 69 below).

69. **Frequency of reviews:** in order to minimize duplication and use the limited resources efficiently, it is important to consider the schedule of the different review processes (NCs, GHG inventories and BRs) together. Specifically, while maintaining the annual reporting on GHG inventory, the current annual GHG inventory review process could be streamlined so that each Annex I Party is subject to an initial check and resultant status report annually, and an individual inventory review every two years. This would effectively half the number of individual reviews conducted annually, and would mean that centralized reviews would be conducted for the GHG inventories of 13 or 14 Annex I Parties annually and the in-country reviews for eight or nine Parties.³⁹ Or, for a biennial cycle, centralized reviews of GHG inventories would be conducted for 26 to 28 Parties and

³⁹ Forty-four Annex I Parties will be subject to review of their GHG inventories, which means on an annual basis, 13 Parties will undergo centralized reviews and nine Parties will undergo in-country reviews, or 14 Parties under centralized review and eight Parties under in-country review.

in-country reviews for 16 to 18 Parties. Each Party would still be subject to an in-country review of its GHG inventory once every five years.

70. Furthermore as it appears possible and efficient to conduct BR reviews in conjunction with the reviews of NCs (see para. 67 above), Parties may therefore wish to consider a combination of centralized and in-country reviews for their NCs and BRs. For example, every two years, five centralized reviews could be organized for 22 Parties, each consisting of a review of four to five Parties, together with 22 in-country reviews for those Parties remaining.⁴⁰ This could ensure that each Party would be subject to an in-country review of its BR, or of its BR in conjunction with its NC once every four years, noting that the NC review is conducted every four years.

71. **Procedures for reviews:** the procedures for reviews can also be further streamlined, especially under the Kyoto Protocol. To address some overlaps in the reviews experienced with the current reviews of NC and GHG inventories (see para. 61 above), and to streamline the reporting and review, Parties may wish to revise the requirements for future reporting and review to: (a) ensure that the reporting and review on the matters referred to earlier (i.e. national system, national registry, minimization of adverse impacts, etc.) take place either in GHG inventories or in NCs rather than having a duplication of work; (b) change the annual reporting and review so it occurs periodically rather than annually, and continue with annual reporting and review only when problems have been identified or changes are required to a Party's national system or national registry;⁴¹ and (c) avoid similar duplications for reviews of BRs and NCs.

Professionalization of the review process

72. Another possible option to address the limited expert resources and increasing volume of review work is to increase the motivation to support the review processes being engaged in by experts on a more professional basis. Specifically, by establishing an incentive mechanism to increase the expert pool and the quality of the outputs, together with adapting the governance structure of current reviews to suit the requirements of the increasing review tasks.

73. To provide financial incentives to experts to both participate in the reviews and to dedicate sufficient time to the review tasks, a fee system could be introduced. Under a fee system, experts participating in the review would receive remuneration for their professional service on a contractual basis, at a rate corresponding to the complexity of the work and in accordance with the relevant United Nations regulations.

74. In this regard, expert engagement under the activities and procedures of the CDM may be a useful model. According to the rules of procedures of the CDM Executive Board and specific terms of reference established for the working groups, panels and teams under this executive board, members or experts serving on these working groups, panels and teams are compensated for their services in accordance with United Nations rules and regulations and subject to the fulfilment of conditions in a written agreement with the secretariat. This means in addition to travel costs and daily subsistence allowance in case of travel, a daily fee is paid to the members or experts performing agreed tasks. Introducing a similar system to the future review processes for GHG inventories, NCs and BRs will provide incentives to participating experts and partly solve the problem of limited expert participation, poor quality of expert contribution and the timeliness issue encountered in current reviews.

⁴⁰ Forty-four Annex I Parties will be subject to review of their BRs and NCs from 2014.

⁴¹ Some suggestions regarding improvements to reporting and review procedures in the context of the Kyoto Protocol can be found in a recent technical paper mandated by the SBSTA, see document FCCC/TP/2012/6.

75. Alternatively, Parties may wish to modify the overall structure of review teams. Instead of separate ad-hoc individual expert teams for review, a standing group of review experts could be established at the secretariat to undertake all the review tasks. This could result in cost savings in addition to introducing the fee system to the review process, and could also ensure that consistency across various reviews is achieved to the largest extent possible. This approach, however, could limit the possibility for experts to return home with the experience gained from the review process allowing them to enhance the reporting of their own country.

Training of experts

76. Even with significant changes to the review process, a sustained training programme will remain critical to maintaining a skilled pool of experts. The number of review experts needs to increase significantly and incrementally with time, and the professional knowledge and technical skills of review experts also need to improve greatly to ensure the sustainability, consistency, comprehensiveness and rigour of the review process.

77. There are several aspects related to the further improvement of current training programmes. Firstly, more human and financial resources should be allocated to training activities organized by the secretariat. This will ensure that more secretariat support is provided and more training seminars are organized in order to enlarge the expert pool. Secondly, the current training curriculum needs to be updated and complemented to include specific training courses on the review of progress made towards emission reduction targets, PAMs and their mitigation effects, emission projections, and provision of financial, technological and capacity-building support. This will enhance the competence of experts involved in NC reviews and hence improve the quality of expert inputs and contribution to the review process. It will also address the needs of the upcoming BR reviews beginning in 2014 given the new elements included in these reviews.

78. In addition, training support material will need to be developed and updated to address the future needs of GHG inventory reviews taking into account the updated UNFCCC Annex I reporting guidelines, the use of the 2006 IPCC Guidelines and new Kyoto Protocol reporting requirements for LULUCF, and more importantly the future revised UNFCCC Annex I review guidelines resulting from this process. Given the urgency of the upcoming reviews under the new IAR process and moreover the stringency involved in the verification process and the relatively short time remaining, it is essential to operationalize these new training plans and activities as soon as possible.

Updating the UNFCCC roster of experts

79. As the current roster of experts on the UNFCCC website requires a continuous update and only a limited number of experts listed on it participate currently in review activities, there is a need to update and expand this roster. In addition, the nominations of new experts to the roster should be based on the particular expertise needs of the IAR process, such as PAMs and their mitigation effects, progress made towards emission reduction targets, and provision of financial, technological and capacity-building support. The secretariat has already developed an online form to facilitate the nomination of experts to the roster and the updating of the list of nominees by a Party, and in addition, the secretariat processes any nominations received in hard copy, or by fax or e-mail from national focal points. The secretariat reorganized the web page on the roster of experts to make it more user-friendly. It also periodically invites Parties to update the roster and to nominate new experts. However, these activities should be made in accordance with a mandate and in a more structured way together with a clear invitation to Parties to perform an active role and take action to strengthen the capacity of the secretariat.

Clarifying the role of the secretariat

80. With increasing pressure on the secretariat especially in the light of the new IAR process, there is a need to clarify and, when necessary, to redefine the role and adequately strengthen the capacity of the secretariat. The increasing pressure on secretariat support may put the rigour and quality of the review process at risk. With more reviews to be coordinated commencing from 2014, the following requirements are envisaged: additional work to service the completion of CP 1 and the commencement of CP 2 under the Kyoto Protocol; additional tasks to enable the operationalization of the IAR, and additional secretariat support (including extra staff) needed for future negotiations not only on the review process, but also on a wide range of other issues in relation to mitigation and emission reduction targets that are under negotiation by the subsidiary bodies.

81. Furthermore, the roles and responsibilities of the secretariat in the review processes need to be clarified and, if necessary, redefined to improve the quality of reviews, in particular the quality of review reports. Given that the level of expertise, experiences and language skills vary significantly among review experts, the secretariat often has to work closely with review experts to revise and check draft reports, and to ensure quality and consistency of the final reports. Even if the language skills are there, the experts are not trained to prepare official United Nations documents and they face challenges even though the report templates facilitate their tasks.

82. Parties may wish to consider giving the secretariat a role in drafting the review report, in consultation with lead reviewers and based on the substantive input and findings of ERTs. This would be more efficient than the current process and would help to reduce the burden on experts and allow them to focus on the substantive findings. This is the practice adopted by a number of multilateral review processes, such as reviews undertaken by the International Energy Agency (IEA), the World Trade Organization and the International Monetary Fund.⁴² For example, in the IEA reviews, the country desk officer at the secretariat prepares the draft review report after the review visit, in consultation with his or her counterparts in the reviewed country and ERT members as necessary, to ensure that the views of the team are adequately reflected in the draft. The draft is then circulated to the team members for their final confirmation. With this approach, consistency and quality of review reports can be better secured.

V. Implications for the revision of review guidelines

83. This technical paper highlights the current review processes of NCs and national GHG inventories submitted by Annex I Parties, and the secretariat's experiences in coordinating these reviews. The achievements highlighted in this paper, together with the challenges identified with the current review processes and possible solutions presented in this paper are discussed in the context of the upcoming IAR process. These challenges are both process management-related and substantive in the sense that they relate to the specificity of the existing reporting and review guidelines. Both sets of challenges need to be taken into consideration during the revision of guidelines for the review of BRs and NCs, including national inventory reviews for developed country Parties, which is expected to be concluded by COP 19. Possible solutions that are, in part, based on feedback on the review process received from experts participating in the reviews and from submissions received from Parties subject to review. This will ensure an 1. efficient, rigorous and sustainable review system under the evolving climate change regime.

⁴² <<http://www.c2es.org/docUploads/MRV-Design%20Issues-Options-Pew-Center.pdf>>.

Summary of the main reporting and review requirements under the Convention and the Kyoto Protocol

	Convention		Kyoto Protocol (KP)	
	GHG inventory	NC	GHG inventory	NC
<p>Reporting</p> <p>Mandates (Convention):</p> <ul style="list-style-type: none"> Article 12 and FCCC guidelines <p>Mandates (KP):</p> <ul style="list-style-type: none"> Article 5.7 and decisions 13–16/CMP.1 and decision 6/CMP.3 	<p>Meth. guidance=IPCC:</p> <ul style="list-style-type: none"> 1996 revised guidelines; 2000 GPG; 2003 GPG LULUCF; 2006 guidelines. <p>Annually:</p> <ul style="list-style-type: none"> Emissions data (CRF); Methods and data, cross-cutting issues (NIR). <p>Overview/synthesis:</p> <ul style="list-style-type: none"> Annual SA-I report [this is part of the review]; Annual GHG data report. 	<p>Periodically (3–5 ys):</p> <ul style="list-style-type: none"> National circumstances; GHG inventory; P&Ms; GHG projections; Funding; V&A, R&O, Article 6. <p>Overview/synthesis:</p> <ul style="list-style-type: none"> Periodic C&S report 	<p>Suppl. info (Article 7.1):</p> <ul style="list-style-type: none"> LULUCF for Article 3.3, 3.4; Accounting (SEF); Changes in NS and NR; Information on 3.14. <p>One-time reports:</p> <ul style="list-style-type: none"> Initial report; True-up period report. <p>Overview/synthesis:</p> <ul style="list-style-type: none"> Annual C&A report 	<p>Suppl. info (Article 7.2):</p> <ul style="list-style-type: none"> NS and NR; Supplementarity; P&Ms (incl. Article 2.3); Inst. Kyoto Protocol arrangements; Article 10 (incl. TT&CB); Article 11 (funding). <p>One-time reports:</p> <ul style="list-style-type: none"> Demonstrable progress <p>Overview/synthesis:</p> <ul style="list-style-type: none"> Periodic C&S report
<p>Review</p> <p>Mandates (Convention):</p> <ul style="list-style-type: none"> Article 12+FCCC guidelines <p>Mandates (Kyoto Protocol):</p> <ul style="list-style-type: none"> Article 8 and decision 22/CMP.1 	<p>Key features:</p> <ul style="list-style-type: none"> Annual technical review; By international ERTs; Synthesis reports to the SBI; Annual report to the SBSTA. 	<p>Key features:</p> <ul style="list-style-type: none"> In-depth review within two years from submission; By international ERTs; Synthesis reports to the SBI. 	<p>Key features:</p> <ul style="list-style-type: none"> Conjunction with annual Convention reviews; Once for one-time reports; Adjustments/corrections; Special: expedited review; Synthesis reports to the SBI; Annual report to the SBSTA. 	<p>Key features:</p> <ul style="list-style-type: none"> Conjunction with periodic Convention reviews; Once for one-time reports; Synthesis reports to the SBI.
<p>Compliance</p> <p>Mandates (Kyoto Protocol):</p> <ul style="list-style-type: none"> Article 18 and decision 27/CMP.1 (Compliance Committee) 			<p>Issues => action:</p> <ul style="list-style-type: none"> Reporting => eligibility; Methods => adjustments; Targets => eligibility; Targets => penalty for CP 2; Some issues => facilitation. 	<p>Issues => action:</p> <ul style="list-style-type: none"> Reporting => facilitation

Annex II

Existing guidelines and key methodological documents

Biennial reports

- “UNFCCC biennial reporting guidelines for developed country Parties” (annex I to decision 2/CP.17).

National communications

- “Guidelines for the preparation of national communications by Parties included in Annex I to the Convention, Part II: UNFCCC reporting guidelines on national communications” (decision 4/CP.5).

National GHG inventories

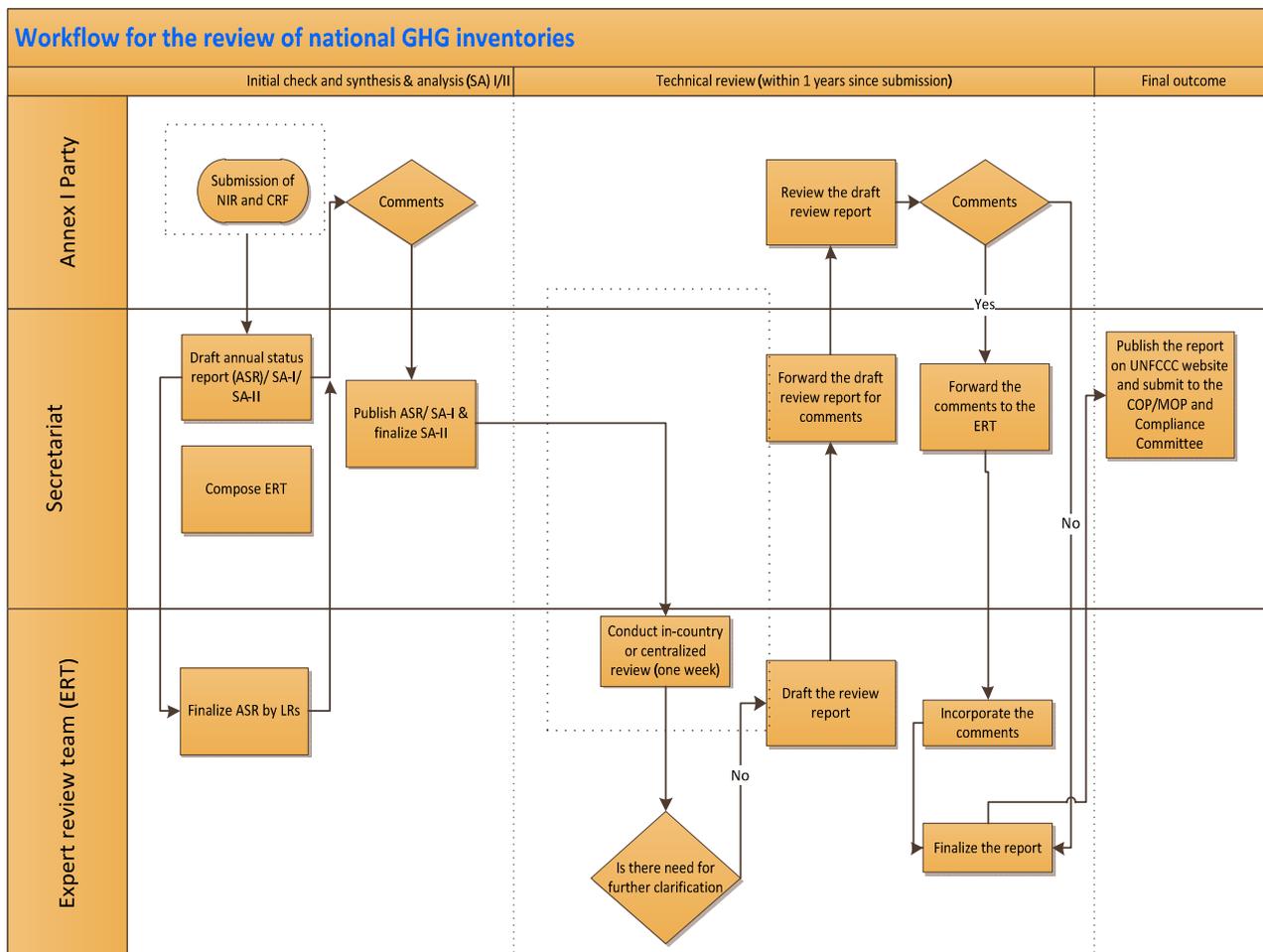
- Revised 1996 Intergovernmental Panel on Climate Change Guidelines for National Greenhouse Gas Inventories;
- Good Practice Guidance and Uncertainty Management in National Greenhouse Gas Inventories;
- Good Practice Guidance for Land Use, Land-Use Change and Forestry;
- “Guidelines for the preparation of national communications by Parties included in Annex I to the Convention, Part I: UNFCCC reporting guidelines on annual inventories” (decisions 18/CP.8 and 14/CP.11);
- “Guidelines for the technical review of greenhouse gas inventories from Parties included in Annex I to the Convention” (decision 19/CP.8).

Additional reporting that is required for Kyoto Protocol Annex I Parties

- “Modalities for the accounting of assigned amounts under Article 7, paragraph 4, of the Kyoto Protocol” (decision 13/CMP.1);
- “Standard electronic format for reporting Kyoto Protocol units” (decision 14/CMP.1);
- “Guidelines for the preparation of the information required under Article 7 of the Kyoto Protocol” (decision 15/CMP.1);
- “Land use, land-use change and forestry” (decision 16/ CMP.1);
- “Good practice guidance for land use, land-use change and forestry activities under Article 3, paragraphs 3 and 4, of the Kyoto Protocol” (decisions 17/ CMP.1 and 6/ CMP.3);
- “Guidelines for national systems under Article 5, paragraph 1, of the Kyoto Protocol” (decision 19/CMP.1);
- “Good practice guidance and adjustments under Article 5, paragraph 2, of the Kyoto Protocol” (decision 20/CMP.1);
- “Issues relating to adjustments under Article 5, paragraph 2, of the Kyoto Protocol” (decision 21/CMP.1);
- “Guidelines for review under Article 8 of the Kyoto Protocol” (decision 22/CMP.1);
- Terms of service for lead reviewers (decision 23/CMP.1).

Annex IV

Workflow for the review of national greenhouse gas inventories



Abbreviations: ASR = annual status report, CRF = common reporting format, ERT = expert review team, LRs = lead reviewers, NIR = national inventory report; SA-I = synthesis & analysis I; SA-II = synthesis & analysis II.