

Communicating information on implementation

The ability of the international community to achieve the objective of the Convention depends on accurate knowledge of trends in GHG emissions and on altering these trends. The most appropriate action can only be taken on the basis of accurate, consistent and internationally comparable data. Communicating relevant information on the most effective ways to reduce emissions and adapt to the adverse effects of climate change also puts the world collectively on the path of sustainable forms of development. Under the Convention therefore, all Parties must communicate certain information to the COP. In accordance with the principle of “common but differentiated responsibilities” enshrined in Article 3 of the Convention, the information submitted by Annex I and non-Annex I Parties differs in scope and content.

The two main elements of the information on implementation are **national inventories** of GHGs and details of the **activities** a Party has undertaken to **implement the Convention**. Annex I Parties have to submit information on their national inventories annually. They have to submit information on their activities to implement the Convention in their national communications – documents prepared by the dates decided by the COP.

In this chapter, section 18.A describes the provisions of the Convention that apply to all Parties. Section 18.B addresses national communications by Annex I Parties and section 18.C inventories by Annex I Parties. Reporting provisions under the Kyoto Protocol are addressed in Box 18.1 (national communications), Box 18.4 (reviewing information) and Box 18.5 (guidance). Finally, section 18.D discusses national communications by non-Annex I Parties.

18.A. General provisions for the communication of information by Parties

With the qualification of “taking into account their common but differentiated responsibilities and their specific national and regional development priorities, objectives and circumstances”, Article 4.1(a) stipulates that all Parties are to “develop, periodically update, publish and make available to the Conference of the Parties” **national inventories** of GHGs, “using comparable methodologies to be agreed upon by the Conference of the Parties”. The inventories are to include “anthropogenic emissions by sources and removals by sinks of all greenhouse gases not controlled by the Montreal Protocol”. Article 4.1(j) further stipulates that all Parties are to “communicate to the Conference of the Parties **information related to implementation**”.

Article 12 defines national communications in further detail. Article 12.1(a) confirms the provisions of Article 4.1(a). Article 12.1(b) requires each Party to deliver “a general description of steps taken or envisaged ... to implement the Convention”. In addition, Article 12.1(c) calls on Parties to communicate “other information that the Party considers relevant to the achievement of the objective of the Convention and suitable for inclusion in its communication, including, if feasible, material relevant for calculations of global emission trends”. Article 12.2 concerns Annex I Parties (see section 18.B.1).

Box 18.1: Provisions for national communications under the Kyoto Protocol

Articles 7.1 and 7.2 commit Annex I Parties to including supplementary information in their national communications and in their annual inventories of emissions and removals of GHGs to demonstrate compliance with Protocol commitments.

Article 7.3 sets the timetable for submitting such information, taking into account the timetable for submission under the Convention.

As provided for in Article 7.4, the COP/MOP will adopt guidelines for preparing information required under Article 7, taking into account similar guidelines adopted by the COP for national communications by Annex I Parties. These guidelines were indeed adopted at COP/MOP 1, by decisions 12/CMP.1 and 15/CMP.1.

Article 8 indicates that information submitted under Article 7 is to be considered by expert review teams, following relevant decisions of the COP and guidelines of the COP/MOP. Additionally, information submitted for the purpose of Article 7.2 is to be studied as part of the review of communications. Decision 22/CMP.1 contains guidelines for review under Article 8 of the Protocol, while decision 23/CMP.1 defines terms of service for lead reviewers (see box 18.4).

Under Article 10, all Parties commit themselves to including information on action and activities under the Protocol in their national communications, in accordance with relevant decisions by the COP.

Article 12.5 sets a differentiated **timetable** for the initial communications from Parties:

- each Annex I Party “shall make its initial communication within six months of the entry into force of the Convention for that Party”;
- each non-Annex I Party “shall make its initial communication within three years of the entry into force of the Convention for that Party, or of the availability of financial resources in accordance with Article 4, paragraph 3”, which states that developing country Parties are to be provided with financial resources to meet the full agreed costs for complying with their reporting obligations under Article 12.1 (see chapter 13); and
- least developed country Parties “may make their initial communication at their discretion”.

Article 12.8 states that any group of Parties may “make a **joint communication** . . . , provided that such a communication includes information on the fulfilment by each of these Parties of its individual obligations under the Convention”. Use of this provision is subject to prior notification and guidelines adopted by the COP. Until now, however, no Party has made use of this possibility, and no specific provisions for joint communications have been included in the Convention guidelines for national communications.

The Convention also determines the **tasks Convention bodies have to carry out** as far as communicating information is concerned. Thus, the COP has to, for example:

- “**promote and guide** . . . the development and periodic refinement of comparable methodologies, to be agreed on by the Conference of the Parties, inter alia, for preparing inventories of greenhouse gas emissions by sources and removals by sinks, and for evaluating the effectiveness of

measures to limit the emissions and enhance the removals of these gases” (Article 7.2(d));

- “**assess**, on the basis of all information made available to it ... , the implementation of the Convention by the Parties, the overall effects of the measures taken pursuant to the Convention, in particular environmental, economic and social effects as well as their cumulative impacts and the extent to which progress towards the objective of the Convention is being achieved” (Article 7.2(e));
- “**consider and adopt** regular reports on the implementation of the Convention and ensure their publication” (Article 7.2(f));
- **review** the information provided by Annex I Parties on their policies and measures “at its first session and periodically thereafter” (Article 4.2(b));
- **consider and agree**, at its first session, methodologies for calculating GHG emissions and removals for the purposes of Annex I Parties’ specific commitments, and review these methodologies regularly thereafter (Article 4.2(c));
- **determine** the frequency of communications by Parties that follow the initial communications (Article 12.5);
- **arrange**, from its first session, for “the provision to developing country Parties of technical and financial support, on request, in compiling and communicating information [under Article 12], as well as in identifying the technical and financial needs associated with proposed projects and response measures under Article 4” (Article 12.7); and
- **establish criteria** on how to aggregate confidential information submitted by Parties (Article 12.9).

The COP may also further consider the procedures for communicating information, if necessary (Article 12.6).

For the **subsidiary bodies**, the work on methodologies, such as those applied to preparing inventories, forms part of the **SBSTA**’s tasks. The **SBI** considers the information communicated by Parties. In particular, it has to:

- “**assess** the overall aggregated effect of the steps taken by the Parties in the light of the latest scientific assessments concerning climate change” from information submitted by all Parties following Article 12.1 (Article 10.2(a)); and
- “**assist** the COP in carrying out the review of the adequacy of commitments” from information submitted by Annex I Parties following Article 12.2, as required by Article 4.2(d) (Article 10.2(b); see chapter 11).

The secretariat has to:

- “**compile and transmit** reports submitted to it” (Article 8.2(b)); as well as
- “**facilitate assistance** to the Parties, particularly developing country Parties, on request, in the compilation and communication of information required in accordance with the provisions of the Convention” (Article 8.2(c); see chapter 18.D).

Furthermore, Article 12 requires the secretariat to transmit the information from Parties as soon as possible to the COP and to any subsidiary bodies concerned (Article 12.6) and to make it publicly available at the same time (Article 12.10). Before making information available, the secretariat has to aggregate any information designated by a Party as confidential, to safeguard its confidentiality (Article 12.9).

18.B. National communications from Annex I Parties

The national communications from Annex I Parties are subject to specific provisions under the Convention, supplemented with guidelines adopted by the COP. Section 18.B.1 describes the provisions and Section 18.B.2 addresses the guidelines. Section 18.B.3 then describes the procedures for reviewing the information.

Most of the 41 Annex I Parties submitted their first national communication in 1994 or 1995, their second in 1997 or 1998, and their third between 2001 and 2003. The deadline for the fourth communication was 1 January 2006 (decision 4/CP.8). As of May 2006, 22 Parties have submitted their fourth national communication.

18.B.1. Relevant provisions of the Convention

According to Article 4.2(b) of the Convention, each Annex I Party “shall communicate ... detailed information on its policies and measures” to mitigate climate change “as well as on its resulting projected greenhouse gas emissions and removals”. This applies to the policies and measures implemented with the aim of returning Annex I Parties’ emissions to their 1990 levels by the end of the 1990s, mentioned in Article 4.2(a) (see chapter 11). The information is to be communicated within six months of the entry into force of the Convention for a Party, and periodically thereafter (Article 4.2(b)).

Article 4.2(c) states that calculations of emissions and removals of GHGs “should take into account the best available scientific knowledge, including the effective capacity of sinks and the respective contributions of such gases to climate change. The Conference of the Parties shall consider and agree on methodologies for these calculations at its first session and review them regularly thereafter”. Accordingly, COP 1 provided initial guidance on methodologies (decision 4/CP.1), referring in particular to the guidance developed by the IPCC. Subsequent guidance is described in section 18.C.

Consistently with Article 4.2, Article 12.2 stipulates that each Annex I Party is to incorporate in its communication:

- “a detailed description of the policies and measures that it has adopted to implement its commitment” under Article 4.2(a) and 4.2(b) (Article 12.2(a)); and
- a “specific estimate of the effects that these policies and measures will have on anthropogenic emissions by its sources and removals by its sinks of greenhouse gases” during the period referred to in Article 4.2(a) (Article 12.2(b)).

In addition, Article 12.3 commits Annex II Parties to incorporating in their communications details of measures which provide for financial assistance (see chapter 13) and technology transfer (see chapter 14) to developing country Parties, taken in accordance with Article 4.3, 4.4 and 4.5.

18.B.2. Reporting guidelines

The current reporting guidelines²¹² were adopted by decision 4/CP.5 at COP 5 (1999). They were developed from earlier guidance, initially from the guidelines adopted by the Intergovernmental Negotiating Committee (INC) in 1994²¹³, which Annex I Parties used for their first national communications. The COP adopted revised guidelines in 1996 (decision 9/CP.2), which were used for second national communications. In 1999, the COP adopted additional guidelines (decisions 3/CP.5 and 4/CP.5) for reporting by Annex I Parties.

Before 1999 the reporting guidelines for Annex I Parties covered national communications as well as inventories, but COP 5 introduced separate guidelines for annual inventories (decision 3/CP.5; see section 18.C.2) and national communications (decision 4/CP.5). COP 5 also asked Annex I Parties to provide detailed reports on their activities in relation to systematic observation, in accordance with separate guidelines adopted by decision 5/CP.5²¹⁴ (see chapter 15.B).

According to the current reporting guidelines, Annex I Parties are to communicate the relevant information in a single document, in one of the official languages of the United Nations. Five hundred copies should be submitted to the COP through the secretariat. Annex I Parties should also

Box 18.2: Additional information relevant to Annex I Parties' fourth national communication

Annex I Parties, in preparing their fourth national communications, should take into account the following decisions and conclusions on:

- national communications: decisions 4/CP.8 and 1/CP.9;
- emissions projections: SBI 23 conclusions;
- capacity-building: decisions 2/CP.7, 3/CP.7, 2/CP.10 and 3/CP.10;
- research and systematic observation, decision 5/CP.5;
- education, training and public awareness, decisions 11/CP.8 and 7/CP.10;
- adaptation and response measures, decisions 1/CP.10 and 5/CP.7.

Links to a number of relevant workshop reports and additional information is available through the secretariat's dedicated web site at <http://unfccc.int/national_reports/annex_i_national_communications/fourth_national_communications/items/3360.php>.

²¹² *Guidelines for the preparation of national communications by Parties included in Annex I of the Convention, Part II: UNFCCC reporting guidelines on national communications*. FCCC/CP/1999/7, pp. 80-100.

<http://maindb.unfccc.int/library/view_pdf.pl?url=http://unfccc.int/resource/docs/cop5/07.pdf>.

²¹³ Decision 9/2, contained in A/AC.237/55, Annex I.

²¹⁴ FCCC/CP/1999/7, pp. 101-108 <http://maindb.unfccc.int/library/view_pdf.pl?url=http://unfccc.int/resource/docs/cop5/07.pdf>.

Box 18.3: Content of national communications – Annex I Parties

National circumstances relevant to GHG emissions: Parties are to provide a description of their national circumstances focusing on how they affect emissions and removals of GHGs, including possible changes over time. The information should encompass aspects such as government structure, population profile, geographic and climate profile, and economic profile with a description of relevant sectors of the economy. Parties requesting flexibility or consideration, in accordance with Article 4.6 (EITs) or Article 4.10 (countries with economies depending heavily on fossil fuels), are required to state the type of special consideration they are seeking and provide a full explanation of their circumstances.

GHG inventory information: Parties are to provide summary information from their national GHG inventories (see Section 18.C). This information must be provided for the period from the base year (usually 1990) to the last but one year before submitting the national communication.

Policies and measures (see chapter 11.B): Parties must communicate information on policies and measures adopted to implement their mitigation commitments under Article 4.2(a) and (b). Parties should report on policies and measures planned, adopted and/or implemented at the national, state, provincial, regional and local level, including those that do not have the limitation and reduction of GHG emissions as a primary objective. Priority should be given to the policies and measures which have the most significant effect on GHG emissions and removals. Communications of policies and measures are to be organized by sectors, subdivided by GHG. Sectors should include energy, transport, industry, agriculture, forestry and waste management. Projections on the mitigation impact of individual policies and measures should be given for particular years such as 1995, 2000 and 2005. Information on the general context of the process of policy making should also be provided.

Projections and the total effect of policies and measures: Parties must indicate expected future trends in GHG emissions and removals under current policies and measures ("with measures" projection). They may also provide a projection of emissions and removals in lieu of such policies and measures ("without measures" projection), as well as a projection "with additional measures". The starting points of "with measures" and "with additional measures" projections will generally be the latest year for which inventory data are available in the national communication, while the starting point of "without measures" projection may be earlier. Projections are to be presented by sector and by GHG. Projections for future years should be provided in five-year steps from 2005 to 2020.

Vulnerability assessment, climate change impacts and adaptation measures (see chapter 12): Parties must provide information on the expected impacts of climate change, as well as an outline of their activities

submit to the secretariat, where relevant, a translation of their national communication into English.

The national communication has to contain the following major sections:

- national circumstances relevant to GHG emissions;
- GHG inventory information;
- policies and measures;
- projections and the total effect of policies and measures;
- vulnerability assessment, climate change impacts and adaptation measures;
- financial resources and transfer of technology (Annex II Parties);
- research and systematic observation; and
- education, training and public awareness.

to adapt to climate change following Article 4.1(b) (on national measures for adaptation) and Article 4.1(e) (on cooperation among Parties for adaptation and for preparing adaptation-related plans). Parties may refer, *inter alia*, to integrated plans for coastal zone management, water resources and agriculture. Parties are encouraged to use methodological guidance prepared by the IPCC²¹⁵ and the United Nations Environment Programme (UNEP)²¹⁶.

Financial resources and transfer of technology (see chapters 13 and 14): Annex II Parties are required to provide details on their implementation of commitments for providing financial resources and transferring environmentally sound technologies to developing country Parties. This includes indications of:

- **"new and additional"** financial resources provided, in particular through contributions to the GEF, to assist developing countries in implementing the Convention, as provided for in Article 4.3;
- financial assistance for **adaptation** in developing country Parties that are particularly vulnerable to the adverse effects of climate change, as provided for in Article 4.4;
- any financial resources for the implementation of the Convention through **bilateral, regional** and other **multilateral** channels;
- measures to promote, facilitate and finance the **transfer of environmentally sound technologies** or access to them, as provided for in Article 4.5, distinguishing clearly between activities undertaken by the public sector and those by the private; and
- steps taken by governments to **support endogenous capacities** and technologies of developing countries, as provided for in Article 4.5.

In addition, decision 7/CP.7, which has not yet been incorporated into the guidelines, requires Annex II Parties to report on their financial contributions annually and mandates the COP to review them annually.

Research and systematic observation (see chapter 15): Parties should refer to the guidance provided in the Convention reporting guidelines on global climate observing systems, contained in the same document as the guidelines on national communications²¹⁷. Their communication must address both domestic and international activities, as well as action to support related capacity-building in developing countries. Furthermore, it must contain summary information on the Party's activities within the Global Climate Observing System (GCOS).

Education, training and public awareness (see chapter 16): Parties should report on, among other things, public information and education materials, resource or information centres, training programmes, and participation in international activities.

18.B.3. Procedure for reviewing and synthesizing the information

Each national communication of an Annex I Party is subject to an in-depth review (for information on the review of inventories, see section 18.C.3). The review follows procedures laid down in decisions 2/CP.1 and 6/CP.3, which were confirmed at subsequent COP sessions (decisions 33/CP.7 and 4/CP.8).

²¹⁵ *IPCC Technical Guidelines for Assessing Climate Change Impacts and Adaptations* (Carter, TR., M.L. Parry, H. Harasawa, S. Nishioka, 1994) <<http://www-cgernies.go.jp>> or <http://www-cgernies.go.jp/cgere/e_report/r_index-e.htm>.

²¹⁶ *UNEP Handbook on Methods for Climate Change Impact Assessment and Adaptation Strategies* (Feenstra, J.F., I. Burton, J.B. Smith, R.S.J. Tol, 1998) <http://www.faiwvu.nl/images_upload/151E6515-C473-459C-85C59441A0F3FB49.pdf>.

²¹⁷ FCCC/CP/1999/7, pp. 101-108 <http://maindb.unfccc.int/library/view_pdf.pl?url=http://unfccc.int/resource/docs/cop5/07.pdf>.

A team of international experts, coordinated by the secretariat, conducts the review. Experts are nominated by Parties and intergovernmental organizations for the roster, and selected by the secretariat under the guidance of the Chairs of the SBs. Experts participate in reviews in their personal capacity. The review of each national communication typically involves a desk-based study and an in-country visit, and aims to provide a comprehensive technical assessment of a Party's implementation of its commitments. It results in a report which normally expands on and updates the national communication. Such reports aim to facilitate the work of the COP in assessing the implementation of commitments by Annex I Parties. They also allow easier comparison of information between Parties, although no common format is used. The in-depth review of third national communications of most Annex I Parties was completed by 2004²¹⁸.

Following recommendations by the SBI on options for streamlining review procedures under the Convention and the Protocol²¹⁹, Parties at COP 11 recognized the need for streamlining during the period 2006–2007 and adopted decision 7/CP.11. According to this decision, the secretariat will:

- organize a centralized review of fourth national communications;
- conduct an in-country, in-depth review of the fourth national communication for those Parties that request one;
- prepare individual reports on the centralized and in-country reviews; and
- prepare a compilation and synthesis of fourth national communications to be considered at COP 13.

Additionally, as requested by decision 26/CMP.1, the secretariat will compile a synthesis of supplementary information included in fourth national communications, in accordance with Article 7.2 of the Kyoto Protocol, to be considered at COP/MOP 3.

Furthermore, the secretariat compiles a **synthesis report** that summarizes the most important information from all national communications taken together. The latest compilation and synthesis report of Annex I communications²²⁰ was discussed at COP 9 in 2003. The COP noted (decision 1/CP.9) that the aggregate GHG emissions of Annex I Parties in 2000 were below their 1990 levels, largely because of the decrease in emissions from EITs. However, projections indicated that, in the absence of additional measures, the aggregate emissions of Annex I Parties, including EITs, would increase in the period 2000–2010.

²¹⁸ For quick access to in-depth review reports: <[http://unfccc.int/documentation/documents/advanced_search/items/3594.php?such=j&symbol="/ID"#beg](http://unfccc.int/documentation/documents/advanced_search/items/3594.php?such=j&symbol=)>.

²¹⁹ FCCC/SBI/2005/16 <<http://unfccc.int/resource/docs/2005/sbi/eng/16.pdf>>.

²²⁰ FCCC/SBI/2003/7 <<http://unfccc.int/resource/docs/2003/sbi/07.pdf>> and FCCC/SBI/2003/7/Add.1 <<http://unfccc.int/resource/docs/2003/sbi/07a01.pdf>> – FCCC/SBI/2003/7/Add.2 <<http://unfccc.int/resource/docs/2003/sbi/07a02.pdf>> – FCCC/SBI/2003/7/Add.3 <<http://unfccc.int/resource/docs/2003/sbi/07a03.pdf>> and FCCC/SBI/2003/5/Add.4 <<http://unfccc.int/resource/docs/2003/sbi/07a04.pdf>>.

Box 18.4: Review under the Kyoto Protocol

Article 5, 7 and 8 of the Kyoto Protocol address the reporting and reviewing of information by Annex I Parties, as well as national systems and methodologies for preparing GHG inventories. One of the keys to the success of the Protocol lies in the reliability of data used to assess compliance. The Protocol and the Marrakesh Accords (decisions 15/CMP.1, 22/CMP.1, 23/CMP.1, 24/CMP.1, 25/CMP.1, and 26/CMP.1) therefore include a set of monitoring and compliance procedures to enforce the Protocol's rules, address any problems, and avoid any error in calculating emissions data, transactions under the three Kyoto mechanisms and activities related to land use, land-use change and forestry (LULUCF) (see chapter 11.B).

The Protocol's monitoring procedures are based on existing reporting and in-depth review procedures under the Convention. They also involve additional accounting procedures that are needed to track transactions in the various units that represent GHG emission reductions, i.e. assigned amount units (AAUs), certified emission reductions (CERs) and emission reduction units (ERUs), under the Kyoto mechanisms, and removal units (RMUs) generated by LULUCF activities.

The decisions on the accounting, reporting and review procedures under the Protocol are:

Decision 12/CMP.1:	Guidance relating to registry systems under Article 7, paragraph 4, of the Kyoto Protocol
Decision 13/CMP.1:	Modalities for the accounting of assigned amounts under Article 7, paragraph 4, of the Kyoto Protocol
Decision 14/CMP.1:	Standard electronic format for reporting Kyoto Protocol units
Decision 15/CMP.1:	Guidelines for the preparation of the information required under Article 7 of the Kyoto Protocol
Decision 22/CMP.1:	Guidelines for review under Article 8 of the Kyoto Protocol
Decision 23/CMP.1:	Terms of service for lead reviewers
Decision 24/CMP.1:	Issues relating to the implementation of Article 8 of the Kyoto Protocol – 1
Decision 25/CMP.1:	Issues relating to the implementation of Article 8 of the Kyoto Protocol – 2
Decision 26/CMP.1:	Review processes during the period 2006–2007 for Parties included in Annex I to the Convention that are also Parties to the Kyoto Protocol

Parties concluded that further action was needed by Annex I Parties to implement policies and measures that would contribute to modifying longer-term trends in anthropogenic emissions, consistent with the objective of the Convention and their commitments, and strongly urged them to intensify efforts to that end. By the same decision, the secretariat was asked to prepare a report for COP 10 on the information from in-depth reviews of national communications from Annex I Parties²²¹, and to organize a workshop in order to facilitate timely submission of fourth national communications, address problems encountered by Parties in preparing national communications and encourage the exchange of views among technical experts on the comparability and transparency of the information in national communications.

Relevant COP decisions²²²:

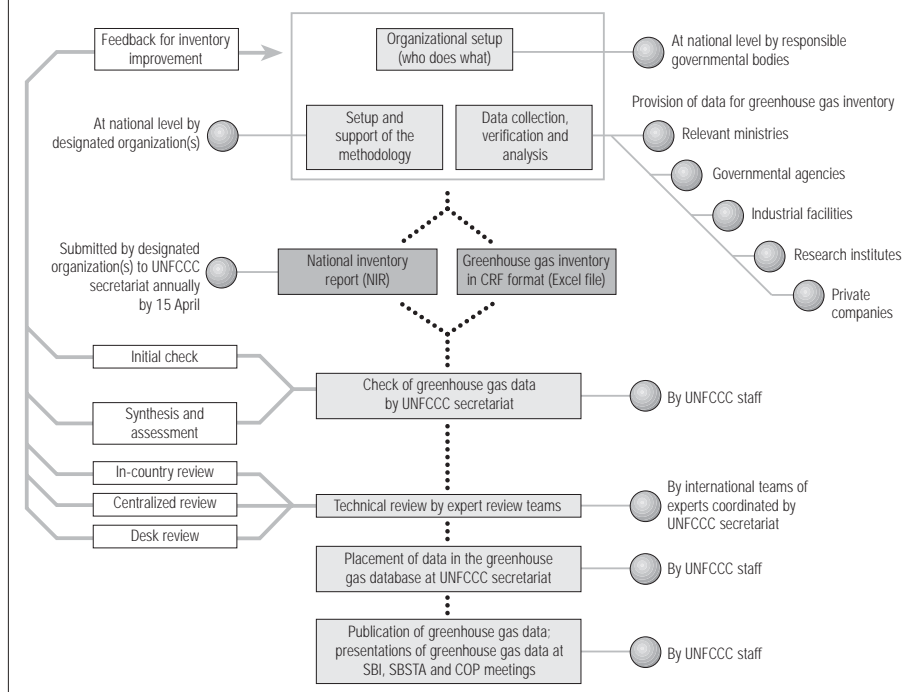
Decision 2/CP.1: Review of first communications from the Parties included in Annex I to the Convention Annex I: Purpose

²²¹ FCCC/CP/2004/INF.2 <<http://unfccc.int/resource/docs/cop10/inf02.pdf>>.

²²² For decisions specifically related to GHG inventories, see section 18.C.

- of the review of first communications from Annex I Parties Annex II: Tasks of the review of first communications from Annex I Parties Annex III: Outline for review reports from in-depth reviews of individual national communications from Annex I Parties
- Decision 3/CP.1: Preparation and submission of national communications from the Parties included in Annex I to the Convention
- Decision 4/CP.1: Methodological issues
- Decision 9/CP.2: Communications from Parties included in Annex I to the Convention: guidelines, schedule and process for consideration
Annex: Revised guidelines for the preparation of national communications by Parties included in Annex I to the Convention
- Decision 6/CP.3: Communications from Parties included in Annex I to the Convention
- Decision 11/CP.4: National communications from Parties included in Annex I to the Convention

Figure 18.1 Typical procedure for the preparation, support and review of national greenhouse gas inventories by Annex I countries



- Decision 4/CP5: 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 5/CP5: Research and systematic observation
- Decision 33/CP7: National communications from Parties included in Annex I to the Convention
- Decision 4/CP8: National communications from Parties included in Annex I to the Convention
- Decision 1/CP9: National communications from Parties included in Annex I to the Convention
- Decision 7/CP11: Review processes during the period 2006–2007 for Parties included in Annex I to the Convention

18.C. Greenhouse gas inventories from Annex I Parties

Since 1996, Annex I Parties have had to submit an inventory of their emissions by sources and removals by sinks of all GHG not controlled by the Montreal Protocol to the secretariat by 15 April every year (decision 3/CP.1). While the UNFCCC reporting guidelines adopted by the COP (decisions 18/CP.8 and 13/CP.9) provide guidance to Parties on the required content, they also refer to more detailed methodological guidance provided by the IPCC (see chapter 4.B). Annual inventories should include sufficient documentation and data to enable the reader to understand the underlying assumptions and calculations of the reported emission estimates. Section 18.C.1 summarizes the IPCC guidance, while some more specific aspects of it are addressed within the description of UNFCCC guidelines in section 18.C.2. Section 18.C.3 describes the consideration of annual inventories and their technical review. Some aspects specific to the Kyoto Protocol are treated in box 18.5, while box 18.8 addresses land use, land use change and forestry (LULUCF). Box 18.6 deals with emissions from international navigation and aviation.

18.C.1. Guidance by the IPCC

Guidance provided by the IPCC is in the *Revised 1996 IPCC Guidelines for National Greenhouse Gas Inventories*²²³ (referred to as the IPCC Guidelines), as well as in two separate volumes of good practice guidance (see below) that elaborate them further. The current ones are a revised version of a first set that the IPCC issued in 1994.

The IPCC Guidelines contain step-by-step instructions, methodologies and references for calculating emissions and removals of GHGs for each category of source or sink. In certain cases, they provide different tiers of methods associated with different levels of complexity, which can be used according to the detail of data available and national circumstances (Tier 1 is the simplest and Tier 3 the most complicated). Furthermore, they provide instructions for assembling, documenting and reporting completed national inventory data consistently, regardless of the method used to produce the estimates.

²²³ Available at <<http://www.ipcc-nggip.iges.or.jp/public/gl/invs1.htm>>.

Box 18.5: Guidance for national systems and application of adjustments under Article 5 of the Kyoto Protocol

Annex I Parties should establish and operate their national systems for estimating GHG emissions by sources and removals by sinks according to the *IPCC Good Practice Guidance and Uncertainty Management in National Greenhouse Gas Inventories*, as required under Article 5.1 of the Protocol. These systems are to be in place not later than 2007.

Article 5.2 states that, where agreed methodologies are not used to estimate emissions and removals, appropriate "adjustments" should be applied.

Following recommendations by the COP, COP/MOP 1 adopted the following decisions to guide Annex I Parties in implementing and operating their national systems and in applying adjustments:

Decision 19/CMP.1: Guidelines for national systems under Article 5, paragraph 1.

Decision 20/CMP.1: Good practice guidance and adjustments under Article 5, paragraph 2.

Decision 21/CMP.1: Issues relating to adjustments under Article 5, paragraph 2.

Further information on methodologies for adjustments under Article 5.2 can be found in the secretariat's working paper *Background documentation on the conservativeness factors for the completion of the technical guidance on adjustments* at

<http://unfccc.int/files/national_reports/accounting_reporting_and_review_under_the_kyoto_protocol/application/pdf/cf_wp_sb22_for_web_final__2may.pdf>.

As a complement, the IPCC issued its *Good Practice Guidance and Uncertainty Management in National Greenhouse Gas Inventories*²²⁴ (known as the IPCC good practice guidance) in 2000. Its aim is to promote transparency, consistency, comparability, completeness and accuracy of inventories. It is intended to assist countries in producing inventories that are neither overestimates nor underestimates so far as can be judged, and in which uncertainties are reduced as far as practicable. It includes, for example, decision trees that formalize the choice of estimation method best suited to national circumstances.

As the IPCC good practice guidance did not address the LULUCF sector, a further complement to the Guidelines was prepared by the IPCC in 2003, namely the *Good practice Guidance for Land Use, Land-Use Change and Forestry*²²⁵ (see Box 18.8).

The current UNFCCC reporting guidelines require Annex I Parties to use the IPCC Guidelines and the IPCC good practice guidance, including the good practice guidance for LULUCF. Non-Annex I Parties too should use the IPCC Guidelines and are encouraged to use the good practice guidance (including for LULUCF) in preparing their inventories.

The IPCC has just finished revising its 1996 Guidelines and adopted the 2006 IPCC Guidelines at its twenty-fifth meeting in April 2006.

18.C.2. UNFCCC guidelines

The current reporting guidelines for preparing annual inventories from Annex I

²²⁴ Available at <<http://www.ipcc-nggip.iges.or.jp/public/gp/english/>>.

²²⁵ Available at <<http://www.ipcc-nggip.iges.or.jp/public/gp/lulucf/gp/lulucf.htm>>.

Parties are in document FCCC/SBSTA/2004/8²²⁶. This document is based on the reporting guidelines adopted by COP 8 (2002)²²⁷. It also incorporates technical modifications introduced in 2003 by COP 9 (decision 13/CP.9) to establish consistency with the IPCC good practice guidance for LULUCF. The revised reporting provisions for the LULUCF sector have been used for a trial period, covering inventories due to be submitted in 2005. Based on this experience, COP 11 adopted tables for the common reporting format for LULUCF for Annex I Parties' annual inventories due in and after 2007 (decision 14/CP.11). The tables will form part of the UNFCCC reporting guidelines on annual inventories adopted by decision 18/CP.8. Updated reporting guidelines will be made available by the secretariat before SBSTA 25.

Until 1999, UNFCCC reporting guidelines for GHG inventories were incorporated in the reporting guidelines for national communications. Decision 3/CP.5 introduced separate reporting guidelines for annual inventories²²⁸ which are also to be used by Annex I Parties when reporting on inventories in their national communications. These guidelines were in turn revised at COP 8. The provisions of the current reporting guidelines are further outlined in the following sections, with Box 18.7 explaining some specific terms related to inventories.

Annex I Parties are required to submit annual inventories in two parts:

- the common reporting format (CRF), a series of standardized data tables containing mainly numerical information and submitted electronically; and
- a national inventory report (NIR), providing a comprehensive description of the methodologies used in preparing the inventory, the data sources, the institutional structures, and quality assurance and control procedures.

Annual inventories must provide estimates of GHG emissions by sources and removals by sinks. These estimates are to be presented by source category, from the base year (which is usually 1990 except for some EITs; see chapter 3.B, Table 3.1 and chapter 11) up to two years before the year in which the inventory is submitted. For example, inventories due in April 2005 contained emissions data up to the year 2003.

To facilitate Parties' reporting of inventory information in the CRF, the secretariat provides a software tool²²⁹. It has developed new reporting software (CRF Reporter) to assist Annex I Parties in reporting inventory data and to facilitate its processing by the secretariat²³⁰.

²²⁶ <<http://unfccc.int/resource/docs/2004/sbsta/08.pdf>>.

²²⁷ Decision 18/CP.8; the reporting guidelines may be found in FCCC/CP/2002/8 <<http://unfccc.int/resource/docs/cop8/08.pdf>>, pp. 4-82.

²²⁸ FCCC/CP/1999/7 <<http://unfccc.int/resource/docs/cop5/07.pdf>>, pp. 3-79.

²²⁹ All information relevant to the software can be found at the following link: <http://unfccc.int/files/national_reports/annex_i_ghg_inventories/application/x-zip-compressed/crf_v1_29.zip>.

²³⁰ The UNFCCC CRF Reporter 2.0 user manual is available at http://ghg.unfccc.int/docs/crfreporter_usermanual.pdf. A The CRF Reporter FAQs page is at <<http://ghg.unfccc.int/crfaq.html>>.

18.C.2.a. Reporting gases

As a minimum, inventories have to include the following GHGs:

- carbon dioxide (CO₂);
- methane (CH₄);
- nitrous oxide (N₂O);
- perfluorocarbons (PFCs);
- hydrofluorocarbons (HFCs); and
- sulphur hexafluoride (SF₆).

Estimates should also include the following indirect GHGs (see Box 18.7): carbon monoxide (CO), nitrogen oxides (NO_x), non-methane volatile organic compounds (NMVOCs), and sulphur oxides (SO_x).

If the IPCC identifies values for the 100-year global warming potential (GWP) – which indicates how much a gas contributes to global warming compared to carbon dioxide – (see Box 18.7) of any additional GHGs and the COP adopts them, Parties will be required to report on them. Parties are strongly encouraged to report emissions and removals of additional GHGs for which 100-year GWP values are available, but which have not yet been adopted by the COP. These emissions and removals should be reported separately from national totals.

Emissions and removals should be presented gas by gas in units of mass for each source or sink category (see section 18.C.2.b).

18.C.2.b. Reporting sectors and source/sink categories

As a minimum, the inventory must cover the following sectors:

- energy;
- industrial processes;
- solvent and other product use;
- agriculture;
- LULUCF; and
- waste.

In the tables of the CRF, each of these sectors is subdivided into different source/sink categories. For example, within the energy sector, the first differentiation occurs between fuel combustion activities and fugitive emissions from fuels. Major source/sink categories for fuel combustion activities are

- energy industries;
- manufacturing industries and construction;
- transport;
- other sectors; and
- other.

Within these categories, energy industries, for example, is further subdivided into:

- a. public electricity;
- b. petroleum refining; and
- c. manufacture of solid fuels and other energy industries.

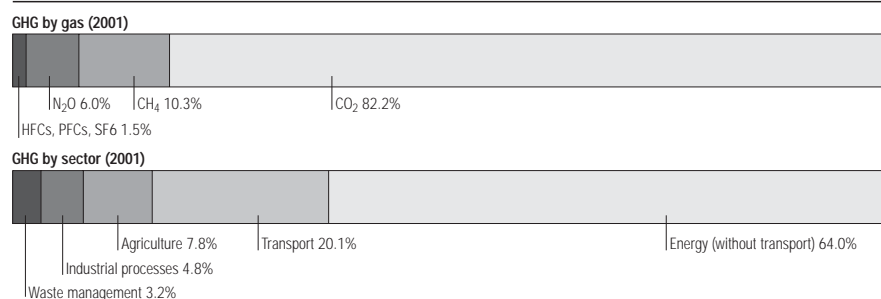
Finally, for each of the subdivisions, emissions estimates are provided for different categories of fuels, as relevant, such as liquid fuels, solid fuels, gaseous fuels, other fuels and biomass.

Emissions and removals have to be reported at the most disaggregated level of each source/sink category, taking into account that a minimum level of aggregation may be required to protect confidential business and military information. Emissions by sources are listed separately from removals by sinks, except for cases where this separation is technically impossible (as may occur in the LULUCF sector).

Estimates of the GHG emissions from a source category are calculated on the basis of **activity data** (indicating the magnitude of human activity that has taken place in this category) and **emission factors** (indicating the quantity of emissions produced from a unit of this activity) (see Box 18.7 for more detailed definitions). For most source categories, the IPCC Guidelines provide a default methodology which includes default emission factors and in some cases default activity data and references. However, the assumptions implicit in these default data, factors and methods may not be appropriate for specific national contexts. Parties are therefore recommended to use their own national emission factors and activity data, where available, provided that they have been developed in a manner consistent with the IPCC good practice guidance, are considered to be more accurate than those calculated using default factors and references, and are reported transparently.

International aviation and marine bunker fuel emissions (see Box 18.6) are not to be included in national totals but reported separately. Parties have to make every effort to separate domestic from international emissions. Additionally, CO₂ emissions from biomass combustion should be reported, but not included in the national totals.

Figure 18.2 Profile of emissions by Annex I countries, by gas and by sector, 2001



Box 18.6: Emissions from bunker fuels used for international aviation and navigation

International bunker fuels, that is, fuels used by air or marine vessels engaged in international transport, constitute an issue for specific consideration on the SBSTA agenda. In accordance with the IPCC Guidelines and the UNFCCC reporting guidelines, emissions from such fuels are to be calculated as part of the national GHG inventories of Parties, but are to be excluded from national totals and reported separately. These emissions are not subject to the limitation and reduction commitments of Annex I Parties under the Convention and the Kyoto Protocol. In order to address questions on bunker fuel emissions, the Convention's bodies cooperate closely with the relevant international organizations, in particular the International Civil Aviation Organization (ICAO)²³¹ and the International Maritime Organization (IMO)²³².

In 1995, COP 1 asked the SBSTA to address the allocation and control of emissions from international bunker fuels (decision 4/CP.1). It invited relevant international organizations and bodies, including the IPCC, to contribute to this work. SBSTA 4 (December 1996) noted that there were three relevant issues:

- adequate and consistent inventories;
- allocation of emissions (i.e. in what way, if at all, these emissions are to be assigned to Parties' national totals); and
- control options.

At COP 3 in 1997, Parties adopted the Kyoto Protocol, which in Article 2.2 states that Annex I Parties are to pursue limitation or reduction of GHG emissions from aviation and marine bunker fuels, working through the ICAO and the IMO, respectively. The COP also urged the SBSTA to further clarify the question of how to include these emissions in the overall GHG inventories of Parties (decision 2/CP.3).

SBSTA 10 (May–June 1999) considered a *Special Report on Aviation and the Global Atmosphere*²³³ prepared by the IPCC at the request of the ICAO. SBSTA 11 (October–November 1999) affirmed that the quality of reporting by Annex I Parties on bunker fuel emissions needed to be improved, and noted that the issue would be addressed in the forthcoming IPCC good practice guidance, as well as in the new UNFCCC reporting guidelines on annual inventories. COP 5 (1999), by decision 18/CP.5, asked the secretariat to develop its cooperation with the secretariats of the ICAO and IMO.

18.C.2.c. Reporting key categories, totals and trends

Inventory reports should provide an overview of the total level of emissions, of the evolution of emissions over time and of the most significant emission sources in a country. In particular,

- Parties should report **aggregate emissions** and removals of GHGs. These are to be expressed in CO₂ equivalent terms, using 100-year GWP values (see Box 18.7).
- Parties should document **trends** i.e. how emission levels have changed from the base year over the period reported, by gas, by source and for aggregated emissions.
- Parties must identify their national **key categories** (see Box 18.7 for definition) for the base year and the latest reported inventory year, as described in the IPCC good practice guidance. Parties are required to estimate and report the individual and cumulative percentage contributions of emissions from key categories to their national total, with respect to both emission level and emission trend.

²³¹ <<http://www.icao.int>>.

²³² <<http://www.imo.org>>.

²³³ Available at <[http://www.ipcc.ch/pub/av\(E\).pdf](http://www.ipcc.ch/pub/av(E).pdf)>.

SBSTA 14 (July 2001) took note of a report providing an overview and update of activities by the ICAO, the IMO and the UNFCCC secretariat on emissions from bunker fuels²³⁴.

In 2003, the ICAO and the IMO, in consultation with the UNFCCC secretariat, each organized an expert meeting to discuss methodological aspects of compiling and reporting GHG inventory data from international and domestic aviation and navigation. This included discussion of the definitions by which domestic and international fuel uses are separated from each other.

SBSTA 18 (June 2003) took note of the status of methodological work by the ICAO and the IMO and endorsed elements for future methodological work²³⁵. SBSTA 18 and SBSTA 19 (December 2003), called on the ICAO to provide data from validated aviation models that would allow a comparison between UNFCCC inventory data and modelled data for fuel consumption and emissions. SBSTA 19 also agreed to continue consideration of the inclusion of emissions from aviation bunker fuels in the overall GHG inventories of Parties, according to decision 2/CP.3, at SBSTA 22 in 2005.

In response to a mandate from SBSTA 18, the ICAO and the IMO, in consultation with the UNFCCC secretariat, each organized an expert meeting in April 2004. The meetings explored options for improving the methodologies for estimating and reporting bunker fuel emissions as an input to the IPCC's revision of the *Guidelines for preparing national GHG inventories*²³⁶. The ICAO meeting also included a presentation of preliminary results from two new models, in response to the SBSTA's request²³⁷.

As yet, no consensus has been reached on this issue and it therefore remains on the SBSTA's agenda.

Decision 4/CP.1:	Methodological issues
Decision 2/CP.3:	Methodological issues related to the Kyoto Protocol
Decision 18/CP.5:	Emissions based upon fuel sold to ships and aircraft engaged in international transport

Latest documents include: FCCC/SBSTA/2005/INF.2 <<http://unfccc.int/resource/docs/2005/sbsta/eng/inf02.pdf>>, FCCC/SBSTA/2005/MISC.4 <<http://unfccc.int/resource/docs/2005/sbsta/eng/misc04.pdf>>, and FCCC/SBSTA/2005/MISC.6 <<http://unfccc.int/resource/docs/2005/sbsta/eng/misc06.pdf>>.

18.C.2.d. Reporting methodological issues, consistency, uncertainty management and quality assurance/quality control

In accordance with the IPCC good practice guidance, methods have to be carefully chosen and documented. Inventory data must be of high quality, while shortcomings have to be assessed and made transparent. The NIR to be submitted along with the completed is to provide detailed information on all these issues. In particular:

- the assumptions and methodologies used should be clearly explained for each source or sink category to ensure **transparency**;
- the **uncertainties** in the data used for all source and sink categories must be quantitatively estimated;
- any methodological or data gaps should be documented in a transparent manner to facilitate an assessment of **completeness**;

²³⁴ FCCC/SBSTA/2001/INF.1 <<http://unfccc.int/resource/docs/2001/sbsta/inf01.pdf>>.

²³⁵ See FCCC/SBSTA/2003/INF.3, <<http://unfccc.int/resource/docs/2003/sbsta/inf03.pdf>> which also contains results from the 2003 expert meetings.

²³⁶ A summary of these meetings is provided in FCCC/SBSTA/2004/INF.5 <<http://unfccc.int/resource/docs/2004/sbsta/inf05.pdf>>.

²³⁷ For more information on the models, see FCCC/TP/2003/3 <<http://unfccc.int/resource/docs/tp/tp0303.pdf>>.

Box 18.7: Explanations of specific terms related to inventories

Activity data: data on the magnitude of human activity resulting in emissions or removals taking place during a given period of time. In the energy sector, for example, the annual activity data for fuel combustion sources are the total amounts of fuel burned. Annual activity data for methane emissions from enteric fermentation are the total number of animals (livestock population), categorized by species.

Emission factor: a coefficient that relates the activity data to the amount of chemical compound that is the source of later emissions. For example, it may be estimated that X kg of methane is emitted by one cow per year. Emission factors are often based on a sample of measurement data, averaged to develop a representative rate of emission for a given activity level under a given set of operating conditions.

Key category: a source or sink category that is prioritized within the national inventory system because its estimate has a significant influence on a country's total inventory of direct GHGs in terms of the absolute level of emissions, the trend in emissions, or both.

Indirect greenhouse gases or GHG precursors: compounds which by themselves are not significant as GHGs, but which nevertheless have an effect on the concentration of GHGs in the atmosphere, as they take part in physical or chemical processes regulating the production or destruction rates of GHGs.

Global warming potential: an index that approximates the warming effect of a unit mass of a GHG over a chosen time horizon, relative to that of **carbon dioxide** (the GWP of carbon dioxide is set as 1). For example, the 100-year GWP of a gas expresses the effect on atmospheric warming that it is likely to exert over 100 years relative to that of CO₂.

Quality assurance: a system of review procedures conducted by personnel not directly involved in the process of compiling or developing the inventory. These reviews verify that the objectives for quality of data have been met, ensure that the inventory represents the best possible estimates given the state of scientific knowledge and data available, and support the effectiveness of the quality control (QC) programme.

Quality control: a system of routine technical activities to measure and control the quality of the inventory as it is being developed. This includes methods such as checks on the accuracy of data acquisition and calculations and the use of approved standardized procedures for calculating emissions, measuring, estimating uncertainties, archiving information and reporting.

- inventories for all years covered by the report should be estimated using the same methodologies to ensure **consistency**. Where the methodology has changed, Parties should **recalculate** inventories for former years; and
- a **quality assurance/quality control (QA/QC)** plan is required from each Party (see Box 18.7 for definitions) as well as general and specific quality control procedures for each source/sink category. These plans and procedures must be documented.

18.C.3. Publication, compilation and technical review of annual inventories

The UNFCCC secretariat collects Annex I Parties' annual GHG inventory submissions and makes them publicly available. Based on inventory information, the secretariat also publishes its own reports summarizing the status and trends of GHG emissions and removals in Annex I countries.

In 1997, COP 3 asked the secretariat to "collect, process and publish, on a regular basis," Annex I Parties' annual inventories and to include inventory information in its compilation and synthesis reports of Annex I Parties' national communications (decision 6/CP.3).

Box 18.8: LULUCF reporting

The LULUCF sector raises a number of specific issues, including uncertainties in estimation, unavailability of country-specific factors or difficulties in estimating stocks of carbon in soils, for the calculation of GHG emissions and removals. Some of these issues are only relevant in the context of LULUCF activities and related reporting under the Kyoto Protocol but others are also relevant for preparing inventories under the Convention.

The IPCC, at the invitation of COP 7 (decision 11/CP.7), prepared several methodology reports on LULUCF, including *Good Practice Guidance for Land Use, Land-Use Change and Forestry*. This guidance was incorporated into the reporting tables for LULUCF under the Convention (decision 13/CP.9). In 2005 reporting tables for LULUCF were again revised, drawing on the subsequent experience of Parties, and adopted by decision 14/CP.11. In the latest IPCC Guidelines, the LULUCF and Agriculture sectors were merged into one called "Agriculture, Forestry and Other Land Use" (AFOLU). This sector encompasses both agriculture issues, such as methane emissions from rice cultivation, and LULUCF issues, such as changes in carbon stocks resulting from shifts in land-use patterns.

In addition, the SBSTA is considering the treatment of emissions from **harvested wood products** (HWP) reported on a voluntary basis by Parties. While the IPCC is currently developing methods to report these emissions in the context of the 2006 IPCC Guidelines, the SBSTA is considering issues such as estimation of changes in carbon stocks, the impacts of various accounting approaches and the related implications for, for example, trade and sustainable forest management²³⁸. In particular, the need to work on the so-called "accounting approaches" arises whenever the trade of HWP affects the distribution of emissions from the HWP traded between exporters and importers. A technical paper²³⁹ and a workshop report²⁴⁰ by the secretariat further discuss this issue.

In 2002, COP 8 provided more detailed instructions on publishing and compiling inventory information, requesting that the secretariat:

- publish on its web site²⁴¹ the annual inventories of Annex I Parties, consisting of the NIR and CRF, that had been officially submitted, and to publish the addresses of Parties' web sites where these publications were located (decision 18/CP.8); and
- compile aggregate inventory information in a stand-alone document to be published electronically on the UNFCCC web site, and publish a summary document for the consideration of the COP and SBs (decision 19/CP.8)²⁴².

²³⁸ FCCC/SBSTA/2004/13, paras 19-33 <<http://unfccc.int/resource/docs/2004/sbsta/13.pdf>>

²³⁹ FCCC/TP/2003/7 <<http://unfccc.int/resource/docs/tp/tp0307.pdf>> and Corrigendum. Additional information and data on changes in carbon stocks and emissions of GHG from HWP and experiences with the use of relevant guidelines and good practice guidance of the IPCC to generate such data and information can be found in FCCC/SBSTA/2005/MISC.9 <<http://unfccc.int/resource/docs/2005/sbsta/eng/misc09.pdf>>, FCCC/SBSTA/2005/MISC.9/Add.1 <<http://unfccc.int/resource/docs/2005/sbsta/eng/misc09a01.pdf>>, and FCCC/SBSTA/2005/MISC.9/Add.2 <<http://unfccc.int/resource/docs/2005/sbsta/eng/misc09a02.pdf>>, as well as in FCCC/SBSTA/2005/INF.7 <<http://unfccc.int/resource/docs/2005/sbsta/eng/inf07.pdf>>.

²⁴⁰ FCCC/SBSTA/2004/INF.11 <<http://unfccc.int/resource/docs/2004/sbsta/inf11.pdf>>

²⁴¹ <http://unfccc.int/national_reports/annex_i_ghg_inventories/national_inventories_submissions/items/2761.php>. An online searchable database where the most recent greenhouse gas emissions and removals data from Parties is also available at <<http://ghg.unfccc.int/index.html>>.

²⁴² See FCCC/CP/2002/8 <<http://unfccc.int/resource/docs/cop8/08.pdf>>, paragraphs 42-43.

The SBI has regularly considered these compilations, and has often expressed concern over the increase in emissions in Annex I Parties that the data indicate. It has also reaffirmed the need for further action to reverse this trend. A compilation of inventory data for the period of 1990–2003 was prepared for SBI 23 in 2005²⁴³.

The annual GHG inventory submissions constitute input to a **technical review** process. This has three stages:

- an initial check;
- a synthesis and assessment; and
- individual reviews of inventories.

A first technical review process was established by COP 5 in 1999, for a two-year trial period covering the inventories submitted in 2000 and 2001 (decision 6/CP.5). While this period included annual initial checks and an annual synthesis and assessment of GHG inventories from all Annex I Parties, individual reviews were only conducted for a limited number of Annex I Parties on a voluntary basis. The trial period was extended at COP 7 in 2001 to include inventories submitted in 2002 (decision 34/CP.7). Since 2003, all Annex I Parties' inventories have been subject to an individual technical review, following guidelines²⁴⁴ adopted at COP 8 (decision 19/CP.8). The guidelines build upon the earlier ones for the trial period²⁴⁵, taking into account the experience gathered since then. Decision 19/CP.8 stipulated that individual reviews should be conducted until the end of the year 2006, subject to availability of resources, and that a report assessing the implementation of the guidelines should be prepared for the SBSTA at its first session in 2006.

According to the guidelines, the technical review of GHG inventories has a four-fold purpose:

- to ensure that the COP has adequate and reliable information on annual inventories and emission trends;
- to provide the COP with an objective, consistent, transparent, thorough and comprehensive technical assessment of the annual inventory information submitted by Annex I Parties, and a technical assessment of the implementation of their commitments under Article 4.1(a) and Article 12.1(a) of the Convention;
- to examine, in a facilitative and open manner, the reported inventory information for consistency with UNFCCC reporting guidelines, as well as the IPCC Guidelines and good practice guidance; and
- to assist Annex I Parties in improving the quality of their GHG inventories.

In the following section, the three stages of the inventory review process are described in further detail.

²⁴³ FCCC/SBI/2005/17 <<http://unfccc.int/resource/docs/2005/sbi/eng/17.pdf>>.

²⁴⁴ FCCC/CP/2002/8 <<http://unfccc.int/resource/docs/cop8/08.pdf>>, pp. 83-92.

²⁴⁵ FCCC/CP/1999/7 <<http://unfccc.int/resource/docs/cop5/07.pdf>>, pp. 109-114.

The **initial check** of annual inventories is prepared by the secretariat. The result is a status report²⁴⁶, the main purpose of which is to provide a brief check of the completeness of the submission, based chiefly on the CRF.

The secretariat also carries out the **synthesis and assessment** of annual inventories. The result is a synthesis and assessment report in two parts. Part I compares inventory data (emission estimates, activity data, implied emission factors and other information) across Parties in tabular form. Part II highlights preliminary issues for further consideration during the individual review. Only Part I is published on the secretariat's web site²⁴⁷; Part II is sent to the Party for comments and subsequently made available to the team carrying out the individual review (see below).

Individual reviews of GHG inventories are carried out by expert teams, coordinated by the secretariat. Each inventory submission is assigned to a single team whose members are selected by the secretariat from experts nominated by Parties and, as appropriate, by intergovernmental organizations. Each team comprises experts on different sectors of inventories (such as energy, industrial processes, agriculture, LULUCF and waste) and one or two generalists. According to decision 12/CP.9, experts must train and pass an examination before they can be invited to participate (see below). Two lead reviewers, one from an Annex I Party and one from a non-Annex I Party, guide the work of the team. Recognizing the special role of lead reviewers, COP 9 asked the secretariat to organize meetings for them to promote a common approach to methodological and procedural issues and to make recommendations to the secretariat on ways to further improve the effectiveness and efficiency of the inventory reviews. Three meetings of inventory lead reviewers have already taken place²⁴⁸. The result of the review is an individual report for each Party²⁴⁹.

The individual reviews are carried out using three different approaches. Most of them are **centralized reviews**, with teams meeting for five or six days at the secretariat. Some are **desk reviews**, where experts work from their own offices. The third sort are **in-country reviews**, where teams visit the countries they are reviewing. Decision 19/CP.8 mandated the secretariat to coordinate eight in-country reviews per year, which means that for each Annex I country an in-country review takes place every five years. The same decision stipulated that desk reviews would be carried out only within the two years following an in-country review. The review process for GHG inventories submitted in 2005 for instance, was organized as follows:

²⁴⁶ Status report for 2006 <http://unfccc.int/national_reports/annex_i_ghg_inventories/inventory_review_reports/items/3724.php>.

²⁴⁷ For the synthesis and assessment report on inventories submitted in 2005, see FCCC/WEB/SAI/2005. <<http://unfccc.int/resource/webdocs/sai/2005.pdf>>.

²⁴⁸ Conclusions of the meetings are available through <http://unfccc.int/national_reports/annex_i_ghg_inventories/review_process/items/2762.php>.

²⁴⁹ See <http://unfccc.int/national_reports/annex_i_ghg_inventories/inventory_review_reports/items/3723.php>.

- the inventories of 28 Annex I Parties were subject to a centralized review by three expert review teams, each reviewing five to six inventories; and
- nine national inventories were subject to an in-country review, with an individual expert review team set up for each country.

COP 9, by decision 12/CP.9, introduced several provisions that further refined and formalized the review process:

- the secretariat was asked, subject to the availability of resources, to develop and implement a **training programme for members of review teams**, including examination procedures²⁵⁰;
- the COP adopted a **code of practice for the treatment of confidential information**²⁵¹ in the technical review of GHG inventories. In accordance with this decision, the secretariat developed procedures to implement the code of practice²⁵² during the inventory review in 2004 and beyond. They cover submission, processing and handling by the secretariat of any information designated as confidential by an Annex I Party, and the granting of access by expert reviewers to the information. Decision 18/CP.10 further clarifies access to confidential information by expert review teams;
- as of 2004, all members of expert review teams must sign an **agreement for expert review services**²⁵³. The agreement specifies the responsibilities, expected time commitment, and appropriate conduct for members, particularly for the protection of confidential information.

Relevant COP decisions:

Decision 4/CP.1:	Methodological issues
Decision 9/CP.2:	Communications from Parties included in Annex I to the Convention: guidelines, schedule and process for consideration Annex: Revised guidelines for the preparation of national communications by Parties included in Annex I to the Convention
Decision 2/CP.3:	Methodological issues related to the Kyoto Protocol
Decision 3/CP.5:	Guidelines for the preparation of national communications by Parties included in Annex I to the Convention, Part I: UNFCCC reporting guidelines on annual inventories
Decision 6/CP.5:	Guidelines for the technical review of greenhouse gas inventories from Parties included in Annex I to the Convention

²⁵⁰ Detailed information on the courses can be found at <http://unfccc.int/national_reports/annex_i_ghg_inventories/inventory_review_training/items/2763.php>.

²⁵¹ Code of practice for the treatment of confidential information in the technical review of greenhouse gas inventories from Parties included in Annex I to the Convention available at <http://unfccc.int/files/national_reports/annex_i_ghg_inventories/application/pdf/ext_cp0306a1.pdf>.

²⁵² The UNFCCC confidentiality procedures are available at <http://unfccc.int/files/national_reports/annex_i_ghg_inventories/application/pdf/impl_proc.pdf>.

²⁵³ The text of the agreement is available at <http://unfccc.int/files/national_reports/annex_i_ghg_inventories/application/pdf/agr_exprev.pdf>.

- Decision 9/CP.4: Land use, land use change and forestry
- Decision 11/CP.7: Land use, land use change and forestry
- Decision 34/CP.7: Revision of the guidelines for the preparation of national communications by Parties included in Annex I to the Convention, Part I: UNFCCC reporting guidelines on annual inventories, and the guidelines for the technical review of greenhouse gas inventories from Parties included in Annex I to the Convention
- Decision 18/CP.8: Guidelines for the preparation of national communications by Parties included in Annex I to the Convention, part I: UNFCCC reporting guidelines on annual inventories
- Decision 19/CP.8: UNFCCC guidelines for the technical review of greenhouse gas inventories from Parties included in Annex I to the Convention
- Decision 12/CP.9: Issues relating to the technical review of greenhouse gas inventories from Annex I Parties
Annex I: Training programme for members of expert review teams for the technical reviews of greenhouse gas inventories of Parties included in Annex I to the Convention
Annex II: Code of practice for the treatment of confidential information in the technical review of greenhouse gas inventories from Parties included in Annex I to the Convention
Annex III: Elements for the inclusion in the agreement for expert review services
- Decision 13/CP.9: Good practice guidance for land use, land-use change and forestry in the preparation of national GHG inventories under the Convention
Annex I: Table of the common reporting format for the land use, land-use change and forestry categories for reporting under the Convention
Annex II: Technical modifications to reporting guidelines on annual inventories adopted in decision 18/CP.8 for Annex I Parties
- Decision 18/CP.10: Issues relating to the technical review of greenhouse gas inventories of Parties included in Annex I to the Convention and the implementation of Article 8 of the Kyoto Protocol
- Decision 14/CP.11: Tables of the common reporting format for land use, land-use change and forestry

18.D. National communications from non-Annex I Parties

National communications from non-Annex I Parties follow timetables and guidelines different from those of Annex I Parties. Article 12.5, which sets the initial timetable for national communications, stipulates that each non-Annex I Party “shall make its initial communication within three years of the entry into force of the Convention for that Party, or of the availability of financial resources in accordance with Article 4, paragraph 3”. Least developed country Parties are

excepted: they “may make their initial communication at their discretion”. As of June 2006, 132 of 148 non-Annex I Parties had submitted their first national communication and three had submitted the second communication. COP 11 decided that non-Annex I Parties should make all efforts to submit their second and third national communications within four years of the initial disbursement of financial resources (decision 8/CP.11). Furthermore, Parties might avail themselves, if necessary, of an extension of up to one year for submission. Those Parties that had not prepared project proposals for the financing of second and third national communications were invited to do so to avoid a break in the continuity of financing. Parties that had submitted their communications should apply for the financing of their subsequent national communications between three to five years after the initial disbursement, except for those that had received this initial disbursement more than five years previously; they had to apply before 2006. The same decision also stated that, as in the case of initial communications, LDCs might submit their second at their discretion.

18.D.1. Relevant provisions of the Convention

The provisions that specifically refer to national communications from non-Annex I Parties are mostly related to providing financial and technical support to them. Article 4.3 requires Annex II Parties to “provide new and additional financial resources to meet the agreed full costs incurred by developing country Parties in complying with their obligations” under Article 12.1.

Article 4.7 states that “the extent to which developing country Parties will effectively implement their commitments under the Convention [which includes submitting national communications] will depend on the effective implementation by developed country Parties of their commitments under the Convention related to financial resources and transfer of technology and will take fully into account that economic and social development and poverty eradication are the first and overriding priorities of the developing country Parties”. This Article is recalled in the current guidelines for national communications from non-Annex I Parties²⁵⁴.

Furthermore, Article 12.7 states that, from its first session, “the Conference of the Parties shall arrange for the provision to developing country Parties of technical and financial support, on request, in compiling and communicating information ... Such support may be provided by other Parties, by competent international organizations and by the secretariat, as appropriate”.

As a specific element of non-Annex I Parties’ national communications, Article 12.4 provides that developing country Parties “may, on a voluntary basis, propose projects for financing, including specific technologies, materials, equipment, techniques or practices that would be needed to implement such projects, along with, if possible, an estimate of all incremental costs, of the reductions of emissions and increments of removals of greenhouse gases, as well as an estimate of the consequent benefits”.

²⁵⁴ Annex to decision 17/CP.8, paragraph 27.

The following subsections address:

- the guidelines for preparing national communications by non-Annex I Parties (section 18.D.2);
- the compilation and synthesis of these communications (section 18.D.3); and
- the financial and technical support provided to non-Annex I Parties to enable them to implement their commitments related to national communications (section 18.D.4).

18.D.2. Guidelines

The first guidelines for preparing national communications from non-Annex I Parties were adopted at COP 2 in 1996 (decision 10/CP.2). At COP 8 in 2002, Parties adopted new guidelines²⁵⁵. The preparation of second national communications will be based on these, as will the preparation of third, and, where appropriate, initial national communications. The secretariat has produced a manual²⁵⁶ to facilitate the use of the new guidelines, available in three United Nations languages (English, French and Spanish). It also contains many references for further information. COP 8 also invited Parties that might wish to do so to use elements from the guidelines for preparing national communications from Annex I Parties.

Each Party is obliged to submit its national communication in both hard copy and electronic format, using one of the six official languages of the United Nations. The communication must contain an executive summary, translated into English, which has to be made publicly available. The secretariat puts them on its web site, <unfccc.int>.

In line with Article 12.1 of the Convention, the guidelines provide that the following main elements are to be included in the national communication:

- a national GHG inventory;
- a general description of steps taken or envisaged to implement the Convention; and
- any other information the Party considers relevant to the achievement of the objective of the Convention and suitable for inclusion in its communication.

In addition, the guidelines stipulate that Parties should also provide information on:

- national circumstances; and
- constraints and gaps, and related financial, technical and capacity needs.

18.D.3. Procedure for compiling and synthesizing the information

National communications from non-Annex I Parties are collected and synthesized by the secretariat but are not subject to in-depth review. Since 1999

²⁵⁵ Decision 17/CP.8 and Annex.

²⁵⁶ The manual is available on the UNFCCC web site at <http://unfccc.int/national_reports/non-annex_i_natcom/guidelines_and_user_manual/items/2607.php>.

Box 18.9: Content of national communications – non-Annex I Parties

National GHG inventory: according to the initial guidelines (decision 10/CP.2), Parties had to estimate GHG emissions and removals for the year 1994, or alternatively provide data for 1990. According to the new guidelines (decision 17/CP.8), Parties are to estimate inventories for the year 2000. Least developed country Parties can estimate their inventories for years at their discretion. In preparing their national inventories, Parties should use the revised 1996 IPCC Guidelines, which are also used by Annex I Parties (see section 18.C). Parties are also encouraged to apply the IPCC good practice guidance (see section 18.C). They are also encouraged to describe procedures and arrangements used to collect and archive data for national GHG inventories. They should also document efforts to make this a continuous process, including information on the role of the institutions involved. Parties are further encouraged to provide information on **methodologies** used in estimating GHG emissions and removals.

The inventories are to cover, as appropriate and to the extent possible, direct GHGs i.e. carbon dioxide (CO₂), methane (CH₄) and nitrous oxide (N₂O). Parties are also encouraged to provide information on hydrofluorocarbons (HFCs), perfluorocarbons (PFCs) and sulphur hexafluoride (SF₆), and on indirect GHGs (see Box 18.7) such as carbon monoxide (CO), nitrogen oxides (NO_x) and non-methane volatile organic compounds (NMVOCs). Other gases not controlled by the Montreal protocol, such as sulphur oxides (SO_x), may be included at the discretion of Parties.

Parties should, to the extent possible, report emissions from international aviation and marine bunker fuels (see Box 18.6) separately in their inventories. Emission estimates from these sources should not be included in the national totals.

General description of steps taken or envisaged to implement the Convention: Parties are to detail programmes containing measures to facilitate adequate adaptation to climate change and measures to mitigate climate change. This refers to the implementation of Article 4.1(b) which requires all Parties to formulate, implement, publish and regularly update such programmes nationally and, where appropriate, regionally.

In reporting on their steps related to **adaptation programmes**, Parties should provide information on their vulnerability to the adverse effects of climate change, and on adaptation measures being taken to meet their specific needs and concerns arising from these adverse effects. The section on adaptation programmes may include information on national adaptation programmes of action (NAPAs) for LDCs (see chapter 12).

Parties may use appropriate methodologies and guidelines²⁵⁷ that they consider better able to reflect their national situation for assessing their vulnerability and adaptation to climate change, provided that these methodologies and guidelines are consistent, transparent and well documented. Parties are also encouraged to use

²⁵⁷ Such as the *IPCC Technical Guidelines for Assessing Climate Change Impacts and Adaptations* (Carter, TR., M.L. Parry, H. Harasawa, S. Nishioka, 1994), the *UNEP Handbook on Methods for Climate Change Impact Assessment and Adaptation Strategies* (Feenstra, J.F., I. Burton, J.B. Smith, R.S.J. Tol, 1998), and the *International Handbook on Vulnerability and Adaptation Assessments* (Benioff, R., S. Guill, J. Lee, 1996). See footnote 4.

appropriate methodologies to evaluate adaptation strategies and measures²⁵⁸, which they consider better able to reflect their national situation.

With respect to mitigation (see also chapter 11.C), Parties are encouraged to use whatever methods are available and appropriate to formulate and prioritize such programmes; this should be done within the framework of sustainable development objectives, which should include social, economic and environmental factors. In assessing these programmes for various sectors of the economy, non-Annex I Parties may use the appropriate technical resources²⁵⁹.

Other information considered relevant to the achievement of the objective of the Convention: Parties are encouraged to detail:

- steps taken to **integrate climate change into relevant social, economic and environmental policies and actions**, according to Article 4.1(f) of the Convention;
- **transfer of technologies** (referring to Article 4.5 and decision 4/CP.7; see chapter 14);
- **research and systematic observation** (see chapter 15), including participation in and contribution to activities and programmes, such as the GCOS, the GTOS and the GOOS (decision 5/CP.5 invites non-Annex I Parties to use the guidelines for reporting on global climate observing systems adopted by this decision; see chapter 15.B); Parties are also encouraged to provide information on research related to mitigation programmes, adaptation programmes, and the preparation of national inventories;
- **education, training and public awareness** (see chapter 16);
- **capacity-building** (see chapter 17), in particular on the implementation of activities within the *Framework for capacity-building in developing countries* (annex to decision 2/CP.7);
- information sharing among and within countries and regions.

National circumstances: Parties should provide a description of their national and regional development priorities, objectives and circumstances, in the light of which they will address climate change and its adverse effects. This may include features of their geography, climate and economy which may affect their ability to deal with mitigating and adapting to climate change, as well as information on their specific needs and concerns arising from adverse effects of climate change or the impact of the implementation of response measures (in the sense of Article 4.8 and 4.9 and/or Article 4.10 of the Convention).

Constraints and gaps, and related financial, technical and capacity needs: Parties should describe any constraints and gaps they have encountered in implementing the Convention, as well as activities to fill them. They should also provide information on financial resources and technical support they have provided or received in preparing national communications and in other actions related to climate change. They are also encouraged to provide a list of projects proposed for financing, according to Article 12.4 of the Convention.

²⁵⁸ Such as those contained in the *Compendium of Decision Tools to Evaluate Strategies for Adaptation to Climate Change* which is available from the UNFCCC web site, <http://unfccc.int/adaptation/methodologies_for/vulnerability_and_adaptation/items/2674.php> see footnote 5.

²⁵⁹ Such as *Technologies, Policies and Measures for Mitigating Climate Change* (IPCC Technical Paper I) <<http://www.gcrl.org/ipcc/techrepl/index.html>>; *Greenhouse Gas Mitigation Assessment: A Guidebook by the U.S. Country Studies Program*; *Climate Change 2001: Mitigation* (Contribution of Working Group III to the Third Assessment Report of the IPCC). <http://unfccc.int/resource/cd_roms/na1/mitigation/index.htm> and <www.ipcc.ch>.

the secretariat has prepared six compilation and synthesis reports, to take account of new initial communications submitted by Parties. The reports are considered by the SBI and the COP.

As requested by COP 9 (decision 2/CP.9), the secretariat compiled a synthesis of information from all initial national communications submitted up to 1 April 2005²⁶⁰ for SBI 23 and COP 11. The SBI noted that non-Annex I Parties were continuing to fulfil their commitments under Articles 4.1 and 12.1 of the Convention.

18.D.4. Support for the preparation of national communications

This section describes the support that is provided to non-Annex I Parties by:

- the secretariat (18.D.4.a);
- the GEF and other organizations (18.D.4.b); and
- the Consultative Group of Experts (CGE) (18.D.4.c).

18.D.4.a. Support by the secretariat

Article 8.2(c) of the Convention and subsequent COP decisions assigned an important role to the secretariat in facilitating financial and technical assistance to non-Annex I Parties in preparing their national communications. This assistance includes facilitating the work of the CGE (decision 3/CP.8), organizing workshops²⁶¹ and side-events, collaborating with bilateral and multilateral support programmes, disseminating information through regional workshops and expert group meetings and promoting information exchange²⁶² and capacity-building. In 1996, COP 2, by decision 10/CP.2, asked the secretariat to provide a report on these activities to the subsidiary bodies at each of their sessions²⁶³. Following this decision and a request by SBI 18, the secretariat has made available to each SBI session details of the financial support provided by the GEF for preparing initial and subsequent national communications²⁶⁴. Following decision 2/CP.9 the secretariat has also prepared a document on possible ways of facilitating the implementation of projects proposed for funding by non-Annex I Parties, in accordance with

²⁶⁰ FCCC/SBI/2005/18 <<http://unfccc.int/resource/docs/2005/sbi/eng/18.pdf>>, FCCC/SBI/2005/18/Add.1 <<http://unfccc.int/resource/docs/2005/sbi/eng/18a01.pdf>>, FCCC/SBI/2005/18/Add.2 <<http://unfccc.int/resource/docs/2005/sbi/eng/18a02.pdf>>, FCCC/SBI/2005/18/Add.3 <<http://unfccc.int/resource/docs/2005/sbi/eng/18a03.pdf>>, FCCC/SBI/2005/18/Add.4 <<http://unfccc.int/resource/docs/2005/sbi/eng/18a04.pdf>>, FCCC/SBI/2005/18/Add.5 <<http://unfccc.int/resource/docs/2005/sbi/eng/18a05.pdf>>, and FCCC/SBI/2005/18/Add.6 <<http://unfccc.int/resource/docs/2005/sbi/eng/18a06.pdf>>.

²⁶¹ For information on the latest workshops on the use of guidelines and preparation of national communications for non-Annex I Parties, see <http://unfccc.int/meetings/workshops/other_meetings/items/2945.php> and <http://unfccc.int/meetings/workshops/other_meetings/items/1071.php>.

²⁶² See for example, links to selected training material at http://unfccc.int/national_reports/non-annex_i_natcom/training_material/methodological_documents/items/349.php. See also the secretariat's newsletter focusing on efforts to support non-Annex I Parties in the implementation of the Convention available at <http://unfccc.int/national_reports/non-annex_i_natcom/nai_newsletter/items/354.php>.

²⁶³ The latest report on secretariat's activities is contained in FCCC/SBI/2004/INF.2 <<http://unfccc.int/resource/docs/2004/sbi/inf02.pdf>>.

²⁶⁴ The latest information is available in FCCC/SBI/2006/INF.01 <<http://unfccc.int/resource/docs/2006/sbi/eng/inf01.pdf>>.

Article 12.4, on a voluntary basis²⁶⁵. SBI 23 invited bilateral and multilateral assistance programmes to support non-Annex I Parties in formulating and developing project proposals identified in national communications, as well as in subsequently implementing them.

18.D.4.b. Support by the GEF and other organizations

In accordance with guidance of the COP, the GEF, as an operating entity of the financial mechanism of the Convention, provides to non-Annex I Parties (see chapters 4 and 13). Many bilateral agencies have also provided financial and technical assistance to non-Annex I Parties in preparing their national communications.

Financial support for national communications is provided by the GEF under its programme category of enabling activities (see chapter 13). In response to the guidance provided by COP 8 (decisions 6/CP.8 and 17/CP.8), the GEF has prepared operational procedures for the expedited financing of national communications from non-Annex I Parties on the basis of the guidelines for national communications adopted at COP 8²⁶⁶. Expedited financing under these procedures is available up to US\$405,000 per country; an additional US\$15,000 per country can be provided for stocktaking and stakeholder consultations ("self-assessment") in preparing the project proposals related to the national communications. Proposals that exceed US\$405,000 require approval by the GEF Council and are treated as full-sized projects (see chapter 13). For its last reporting period, July 2004–August 2005, the GEF disbursed US\$12.07 million for the preparation of second and other national communications²⁶⁷.

Decision 4/CP.9 asked the GEF to monitor the performance of the global project to support the preparation of national communications. It also called on the GEF to provide timely funding for the preparation of national communications by non-Annex I Parties whose project activities were not covered by the project.

In response, and in order to streamline the approval process for individual projects under the expedited procedures, the GEF, with the UNDP and UNEP, has launched an umbrella project, the **National Communications Programme for Climate Change**. Implementation started in 2004 and is scheduled to last six years (i.e. until 2009). Under this programme, expedited financing for national communications of up to 130 countries is foreseen. Most countries have already requested GEF funds for the self-assessment exercise recommended as a first step in preparing project proposals for national communications. Since April 2004, UNDP and UNEP have approved 110 country requests for assistance to conduct stocktaking.

²⁶⁵ FCCC/SBI/2004/INF.16 <<http://unfccc.int/resource/docs/2004/sbi/inf16.pdf>>.

²⁶⁶ *Operational Procedures for the Expedited Financing of National Communications from Non-Annex I Parties*. GEF/C.22/Inf.16, 4 November 2003 <http://thegef.org/Documents/C.22.Inf16_Expedited_Financing_of_National_CommunicationsFINAL.doc>.

²⁶⁷ FCCC/CP/2005/3 <<http://unfccc.int/resource/docs/2005/cop11/eng/03.pdf>>

The GEF, in its last report to the COP²⁶⁸, noted that non-Annex I Parties that had not yet received financing to strengthen their capacity to identify and assess technology needs might also request and receive additional funding for this purpose within the context of their second national communications. The technical assistance component of the programme, the **National Communications Support Programme (NCSP)**²⁶⁹, began its phase II activities in July 2005. Phase I had successfully assisted around 130 non-Annex I Parties in preparing their initial national communications through workshops, web-based training and assistance, distillation and dissemination of best practices, strategic development of tools and methods, and technical feedback on national communications. Phase II will focus on sharing best practices, lessons learned, current knowledge, network support, targeted training activities and the development of methodologies and tools.

At SBI 21, Parties invited the GEF to continue providing support for the preparation of initial and subsequent national communications to those non-Annex I Parties that had yet to submit their initial national communication.

18.D.4.c. Support by the CGE

COP 5 (1999) established a **Consultative Group of Experts on National Communications from Parties not included in Annex I to the Convention (CGE)** to improve the process of preparing national communications by non-Annex I Parties (decision 8/CP.5; see chapter 2). The group comprises 24 experts, including five experts from each of the United Nations regions of Africa, Asia and the Pacific, and Latin America and the Caribbean; six experts from Annex I Parties; and three from international organizations with relevant experience²⁷⁰.

The CGE met five times under the terms of reference defined by COP 5. In 2000/2001, it held four workshops – three regional workshops for Africa, Asia, and Latin America and the Caribbean, respectively, and one interregional workshop. These workshops were designed to exchange regional experiences in preparing national communications and to draw up recommendations for addressing specific needs and concerns of non-Annex I Parties. Two further workshops were organized in 2002, following decision 31/CP.7. This decision covered the issues to be added to the mandate of the CGE: identify and assess technical problems and constraints connected with preparing initial communications not yet completed and provide input to the revised guidelines for preparing national communications.

The CGE also submitted two reports to the subsidiary bodies in 2001 and 2002²⁷¹. The first contained analysis and recommendations on specific elements of national communications, such as GHG inventories, vulnerability and adaptation

²⁶⁸ FCCC/CP/2005/3 <<http://unfccc.int/resource/docs/2005/cop11/eng/03.pdf>>.

²⁶⁹ <<http://ncsp.undp.org>>.

²⁷⁰ See the list of experts at <http://unfccc.int/national_reports/non-annex_i_natcom/cge/items/2884.php>.

²⁷¹ First report: FCCC/SBI/2001/8 <<http://unfccc.int/resource/docs/2001/sbi/08.pdf>> (preliminary version) and FCCC/SBI/2001/15 <<http://unfccc.int/resource/docs/2001/sbi/15.pdf>> (final version); second report: FCCC/SBI/2002/15 <<http://unfccc.int/resource/docs/2002/sbi/15.pdf>>.

assessment, and analysis of GHG abatement. In particular, recommendations were made for financial and technical support and for the improvement of the IPCC methodologies and other models, and of the UNFCCC guidelines.

The second described and analysed the main technical problems and constraints encountered in preparing initial national communications, as well as the activities and programmes required to facilitate their preparation. The CGE also contributed to the revision of the guidelines for national communications from non-Annex I Parties²⁷².

In 2002, COP 8 expressed satisfaction with the role the CGE had played in improving the process of preparing national communications from non-Annex I Parties (3/CP.8). It decided to continue the mandate of the CGE under revised terms of reference. These mandate the CGE inter alia to:

- identify and assess technical problems and constraints that have affected the preparation of initial national communications by non-Annex I Parties that have yet to complete them;
- identify and assess, as appropriate, the difficulties encountered by non-Annex I Parties in the use of the guidelines and methodologies for the preparation of national communications and make recommendations for their improvement;
- examine national communications submitted to the secretariat;
- provide technical advice and support by organizing and conducting workshops, including hands-on training²⁷³;
- review existing activities and programmes for facilitating and supporting the preparation of national communications by non-Annex I Parties; and
- provide, as appropriate, technical advice to the SBI on matters relating to the implementation of the Convention by non-Annex I Parties.

In the same decision, Annex II Parties were invited to provide financial support for the workshops organized by the CGE. The secretariat was asked to continue its support to the work of the CGE, and boost electronic communication among its members. It was also asked to compile reports of CGE meetings and workshops for consideration by the SBI.

The CGE is now implementing its work programme for 2003–2007²⁷⁴. The reconstituted CGE held meetings in September 2003²⁷⁵, May 2004²⁷⁶, December 2004²⁷⁷, April 2005²⁷⁸, November 2005 and March 2006²⁷⁹.

²⁷² FCCC/SBI/2002/INF08 <<http://unfccc.int/resource/docs/2002/sbi/inf08.pdf>>.

²⁷³ Access the complete set of training materials on GHG inventories, vulnerability and adaptation and mitigation assessments developed by the CGE at <http://unfccc.int/resource/cd_roms/na1/start.htm>.

²⁷⁴ FCCC/SBI/2003/INF17, Annex II <<http://unfccc.int/resource/docs/2003/sbi/inf17.pdf>>.

²⁷⁵ FCCC/SBI/2003/INF7 <<http://unfccc.int/resource/docs/2003/sbi/inf07.pdf>>.

²⁷⁶ FCCC/SBI/2004/INF5 <<http://unfccc.int/resource/docs/2004/sbi/inf05.pdf>>.

²⁷⁷ FCCC/SBI/2005/7 <<http://unfccc.int/resource/docs/2005/sbi/eng/07.pdf>>.

²⁷⁸ FCCC/SBI/2005/22 <<http://unfccc.int/resource/docs/2005/sbi/eng/22.pdf>>.

²⁷⁹ Reports of the 5th and 6th meetings of the CGE are contained in FCCC/SBI/2006/8 <<http://unfccc.int/resource/docs/2006/sbi/eng/08.pdf>>.

It established four thematic groups to examine national communications: national GHG inventories, vulnerability and adaptation assessments, mitigation assessments, and cross-cutting themes which include research and systematic observation, technology transfer, capacity-building, education, training and public awareness, information and networking, and financial and technical support. As an important element of its work programme, the CGE organized several regional hands-on training workshops in 2004 and 2005, each focusing on one of the themes²⁸⁰. SBI 23 endorsed the CGE's planned activities for 2006, including further workshops²⁸¹. Parties also further elaborated the mandate of the CGE which was requested to:

- advise on how to integrate information in NAPAs into the second and subsequent national communications of non-Annex I Parties;
- develop a cost-effective and comprehensive training strategy and other technical support;
- recommend ways to improve the reporting of projects identified in non-Annex I national communications; and
- advise on how to improve access to financial and technical support for the preparation of national communications.

The CGE and the secretariat expressed appreciation for the Annex II Parties' financial assistance for developing training materials and organizing hands-on workshops. As of the end of 2005, 164 experts from 90 non-Annex I Parties have attended training and gained skills in national GHG inventories, vulnerability and adaptation assessments, and mitigation assessments.

SBI 24 will consider a report from the CGE on the outcomes of its examination of national communications from non-Annex I Parties²⁸². The recommendations for improving the preparation of their national communications will be used by the SBI when providing technical advice on how to further facilitate the process.

The latest note by the secretariat on the activities of the CGE²⁸³ stated that it was expected to complete its mandate to conduct regional training workshops in 2006. Following the regional training workshop on vulnerability and adaptation assessments for the Asia and the Pacific region, experts from non-Annex I Parties expressed the need for more focused technical support at the subregional level. Experts also asked the CGE to assist them in accessing and/or developing tools and methods for specific areas of vulnerability such as the water, agriculture, health, tourism and marine/fisheries sectors.

²⁸⁰ Information on workshops is available at <http://unfccc.int/national_reports/non-annex_i_natcom/cge/items/2885.php>.

²⁸¹ Report of the CGE hands-on training workshop on vulnerability and adaptation assessments for the Asia and the Pacific region held in Jakarta, Indonesia, 20-24 March 2006 is contained in FCCC/SBI/2006/8 <<http://unfccc.int/resource/docs/2006/sbi/eng/08.pdf>>.annex_i_natcom/cge/items/2885.php>.

²⁸² FCCC/SBI/2006/4 <<http://unfccc.int/resource/docs/2006/sbi/eng/04.pdf>>.

²⁸³ FCCC/SBI/2006/8 <<http://unfccc.int/resource/docs/2006/sbi/eng/08.pdf>>.

The lessons from the regional workshops will provide a useful contribution to developing technical support to non-Annex I Parties. The CGE, at its seventh meeting, will develop a comprehensive training strategy to address the needs identified. In addition, it will actively cooperate with the NCSP, bilateral and multilateral agencies and other international organizations to ensure that experiences gained from the workshops are considered in the design of future technical support programmes.

Another part of the CGE's ongoing work is to explore ways of strengthening cooperation with other expert groups under the Convention, namely the Expert Group on Technology Transfer (EGTT; see chapters 2 and 14) and the Least Developed Countries Expert Group (LEG; see chapters 2 and 13).

Relevant COP decisions:

- Decision 8/CP.1: First communications from Parties not included in Annex I to the Convention
- Decision 10/CP.2: Communications from Parties not included in Annex I to the Convention: guidelines, facilitation and process for consideration
Annex: Guidelines for the preparation of initial communications by Parties not included in Annex I to the Convention
- Decision 12/CP.4: Initial national communications from Parties not included in Annex I to the Convention
- Decision 7/CP.5: First compilation and synthesis of initial communications from Parties not included in Annex I to the convention
- Decision 8/CP.5: Other matters related to communications from Parties not included in Annex I to the Convention
Annex: Terms of reference of the consultative group of experts on national communications from Parties not included in Annex I to the Convention
- Decision 3/CP.6: Second compilation and synthesis of initial national communications from Parties not included in Annex I to the Convention
- Decision 30/CP.7: Third compilation and synthesis of initial national communications from Parties not included in Annex I to the Convention
- Decision 31/CP.7: Consultative Group of Experts on National Communications from non-Annex I Parties
- Decision 32/CP.7: Other matters relating to communications from Parties not included in Annex I to the Convention
- Decision 2/CP.8: Fourth compilation and synthesis of initial national communications from Parties not included in Annex I to the Convention
- Decision 3/CP.8: Consultative Group of Experts on National Communications from Parties not included in Annex I to the Convention

- Annex: Terms of reference of the Consultative Group of Experts on national Communications from Parties not included in Annex I to the Convention
- Decision 17/CP.8: Guidelines for the preparation of national communications from Parties not included in Annex I to the Convention
- Annex: Guidelines for the preparation of national communications from Parties not included in Annex I to the Convention
- Decision 2/CP.9: Compilation and synthesis of initial national communications
- Decision 8/CP.11: Submission of second and, where appropriate, third national communications