Annotated Outline for Fifth National Communications of Annex I Parties under the UNFCCC, including Reporting Elements under the Kyoto Protocol

Introduction

According to the UNFCCC guidelines for the preparation of national communications by Parties included in Annex I to the Convention, Part II, document FCCC/CP/1999/7 (hereinafter referred to as the UNFCCC reporting guidelines) (para 2), the NCs shall be communicated in a **single document** in one of the **official languages** of the United Nations. Every effort shall be made to **avoid over-lengthy NCs**. Parties shall provide an **electronic version** of NC, as in accordance with decision 10/CP.13, submissions of paper copies are no longer needed.

In addition, no **mandatory element** shall be excluded (para 5). If mandatory elements cannot be reported for any reason, Parties shall explain the omission or the reason for partial reporting in the section relating to that element.

According to the UNFCCC reporting guidelines (para 5), Parties shall **structure** their NCs following the outline contained in the annex to these guidelines.

The guidelines for the preparation of the information required under Article 7, of the Kyoto Protocol (Kyoto Protocol reporting guidelines) does not provide an outline of the NC. However, the titles of sections with information to be reported in the NC are provided within the text of these guidelines.

Therefore, the secretariat prepared an example for an outline of the NC5 that is based on the outline required for the NC under the UNFCCC and that incorporates the elements required by the Kyoto Protocol, as appropriate. To distinguish between the UNFCCC and the Kyoto Protocol elements, the later are shown in italics in the titles of the sections. In addition, Parties are encouraged to include, in an annex to the NC5, a table that allows to identify the Kyoto Protocol elements that are allocated in different sections of the report (see example table included in Annex A.II below).

Outline and General Structure of the NC5

I. EXECUTIVE SUMMARY

II. NATIONAL CIRCUMSTANCES RELEVANT TO GREENHOUSE GAS EMISSIONS AND REMOVALS Flexibility in accordance with Article 4, paragraphs 6 and 10

III. GREENHOUSE GAS INVENTORY INFORMATION, INCLUDING INFORMATION ON NATIONAL SYSTEMS AND NATIONAL REGISTRIES

- A. Summary tables
- B. Descriptive summary
- C. National systems in accordance with Article 5, paragraph 1, of the Kyoto Protocol
- D. National registry

IV. POLICIES AND MEASURES, INCLUDING THOSE IN ACCORDANCE WITH ARTICLE 2 OF THE KYOTO PROTOCOL, AND DOMESTIC AND REGIONAL PROGRAMMES AND/OR LEGISLATIVE ARRANGEMENTS AND ENFORCEMENT AND ADMINISTRATIVE PROCEDURES

- A. Policy-making process
- B. Domestic and regional programmes and/or legislative arrangements and enforcement and administrative procedures
- C. Policies and measures and their effects
- D. Policies and measures no longer in place

V. PROJECTIONS AND THE TOTAL EFFECT OF POLICIES AND MEASURES, AND SUPPLEMENTARITY RELATING TO THE KYOTO PROTOCOL MECHANISMS

- A. Projections
- B. Assessment of aggregate effects of policies and measures
- C. Supplementarity relating to mechanisms under Articles 6, 12 and 17, of the Kyoto Protocol
- D. Methodology

VI. VULNERABILITY ASSESSMENT, CLIMATE CHANGE IMPACTS AND ADAPTATION MEASURES

- A. Expected impacts of climate change
- B. Vulnerability Assessment
- C. Adaptation measures

VII. FINANCIAL RESOURCES AND TRANSFER OF TECHNOLOGY, INCLUDING INFORMATION UNDER ARTICLES 10 AND 11 OF THE KYOTO PROTOCOL

- A. Provision of 'new and additional' financial resources
- B. Assistance to developing country Parties that are particularly vulnerable to climate change
- C. Provision of financial resources, including financial resources under Article 11 of the Kyoto Protocol
- D. Activities related to transfer of technology
- E. Information under Article 10 of the Kyoto Protocol

VIII. RESEARCH AND SYSTEMATIC OBSERVATION

- A. General policy on research and systematic observation
- B. Research
- C. Systematic observation

IX. EDUCATION, TRAINING AND PUBLIC AWARENESS

ANNEXES

A.I Summary tables on emission trends

A.II Summary of reporting of supplementary information under Article 7, paragraph 2, of the Kyoto Protocol, in the NC5

Annotated Outline of the NC5

I. Executive Summary

According to the UNFCCC reporting guidelines (para 7), a NC shall include an **executive summary**, of no more than **15 pages**.

II. National circumstances

According to the UNFCCC reporting guidelines (para 8), Parties shall provide a **description of their national circumstances**, **how** national circumstances **affect GHG emissions** and removals, and **how** national circumstances and changes in national circumstances **affect** greenhouse gas emissions and removals **over time**. Parties should provide information about how their national circumstances are relevant to factors affecting greenhouse gas emissions and removals, including disaggregated indicators, to explain the relationship between national circumstances and emissions or removals. Parties may provide whatever information best describes their own national circumstances and historic trends.

Parties may wish to provide information that best describes the national circumstances and historic trends, including disaggregated indicators. Two sets of information could be provided:

- 1. Generic information, including government structure, population, geographic, climate and economic profiles, and
- 2. Sector specific information together with examples of the key drivers for emission trends, including energy, transport, industry, waste, building stock and urban structure, agriculture and forestry.

Flexibility in accordance with Article 4.6 and 4.10

According to the UNFCCC reporting guidelines (para 9), Parties requesting flexibility or consideration, in accordance with Article 4.6 and 4.10 of the Convention, shall **state the type of special consideration they are seeking** and provide a full explanation of their circumstances.

III. Greenhouse gas inventory information, including on national systems and the national registry

III.A. Summary tables

According to the UNFCCC reporting guidelines (para 10), summary information shall be provided for the **period** from 1990 (or respective base year) to the last but one year prior to the year of submission of the NC. Information on the national GHG emission inventory as contained in the NC5 should be consistent with the submission of the annual inventory information in the year when the NC is submitted, and any differences should be clearly explained.

A complete inventory data set is not required (para 11). However, at a minimum, Parties shall report the **summary tables**, including CO₂-eq. emissions trend tables given in the common reporting format (CRF). These CRF tables could be provided in an annex to the national communication (see Annex A.I).

The NC5 should include the latest available GHG inventory submission. If the Parties submit the NC5 before 1 January 2010, the latest inventory submission is the 2009 submission with 2007 emissions data. Parties may wish to provide a descriptive summary of GHG emission trends in part III.B of the NC5 and CRF summary tables in annex A.I to the NC5.

III.B. Descriptive summary

According to the UNFCCC reporting guidelines (para 12), In the main text of the national communication, Parties should provide a descriptive summary and should provide diagrams for the GHGs reported in the summary tables. Parties should also provide a description of the factors underlying emission trends.

III.C. National systems in accordance with Article 5, paragraph 1, of the Kyoto Protocol

According to the Kyoto Protocol reporting guidelines (para 30), each Annex I Party shall provide a description of how it is performing the general and specific functions of the national system under Article 5, paragraph 1, including

- (a) The name and contact information for the national entity and its designated representative with overall responsibility for the national inventory of the Party;
- (b) The roles and responsibilities of various agencies and entities in relation to the inventory development process, as well as the institutional, legal and procedural arrangements made to prepare the inventory;
- (c) A description of the process for collecting activity data, for selecting emission factors and methods, and for the development of emission estimates;
- (d) A description of the process and the results of key source identification and, where relevant, archiving of test data;
- (e) A description of the process for the recalculation of previously submitted inventory data;
- (f) A description of the quality assurance and quality control plan, its implementation and the quality objectives established, and information on internal and external evaluation and review processes and their results in accordance with the guidelines for national systems;
- (g) A description of the procedures for the official consideration and approval of the inventory.

In addition, where the Party included in Annex I has not performed all functions, the Party shall provide an explanation of which functions were not performed or were only partially performed and information on the action planned or taken to perform these functions in the future (para 31).

According to Article 10, paragraphs a and f, of the Kyoto Protocol, Annex I Parties shall report information on their programmes and activities undertaken to formulate, where relevant and to the extent possible, cost-effective national and, where appropriate, regional **programmes to improve the quality of local emission factors, activity data and/or models** which reflect the socio-economic conditions of each Party for the preparation and periodic updating of national inventories of anthropogenic emissions by sources and removals by sinks of all greenhouse gases not controlled by the Montreal Protocol, using comparable methodologies to be agreed upon by the Conference of the Parties, and consistent with the guidelines for the preparation of national communications adopted by the Conference of the Parties.

III.D. National registry

According to the Kyoto Protocol reporting guidelines (para 32), each Annex I Party shall provide a description of how its national registry performs functions defined in the annexes to decisions 13/CMP.1 and 5/CMP.1, and conformity with the requirements of the technical standards for data exchange (DES), including:

¹ Decision 13/CMP.1. Modalities for the accounting of assigned amounts under Article 7, paragraph 4, of the Kyoto Protocol.

² Decision 5/CMP.1. Modalities and procedures for afforestation and reforestation project activities under the clean development mechanism in the first commitment period of the Kyoto Protocol.

- (a) The name and contact information of the registry administrator designated by the Party to maintain the national registry;
- (b) The names of the other Parties with which the Party cooperates by maintaining their national registries in a consolidated system;
- (c) A description of the database structure and capacity of the national registry;
- (d) A description of how the national registry conforms to the DES between registry systems for the purpose of ensuring the accurate, transparent and efficient exchange of data between national registries, the clean development mechanism registry and the transaction log (decision 19/CP.7, para 1);³
- (e) A description of the procedures employed in the national registry to minimize discrepancies in the issuance, transfer, acquisition, cancellation and retirement of emission reduction units (ERUs), certified emission reductions (CERs), temporary certified emissions reductions (tCERs), long-term certified emission recutions (lCERs), assigned amount units (AAUs) and/or removal units (RMUs), and replacement of tCERS and lCERs, and of the steps taken to terminate transactions where a discrepancy is notified and to correct problems in the event of a failure to terminate the transactions:
- (f) An overview of security measures employed in the national registry to prevent unauthorized manipulations and to prevent operator error and of how these measures are kept up to date;
- (g) A list of the information publicly accessible by means of the user interface to the national registry;
- (h) The Internet address of the interface to its national registry;
- (i) A description of measures taken to safeguard, maintain and recover data in order to ensure the integrity of data storage and the recovery of registry services in the event of a disaster;
- (j) The results of any test procedures that might be available or developed with the aim of testing the performance, procedures and security measures of the national registry undertaken pursuant to the provisions of decision 19/CP.7 relating to the technical standards for data exchange between registry systems.

IV. Policies and measures, including those in accordance with Article 2 of the Kyoto Protocol, and domestic and regional programmes and/or legislative arrangements and enforcement and administrative procedures

IV.A. Policy-making process

According to the UNFCCC reporting guidelines (para 20), on the **policy making process**, Parties should provide a **description of the overall policy context**, national GHG targets, strategies for sustainable development, inter-ministerial decision-making process/bodies, as well as a description of the **system for monitoring and evaluation of policies and measures** over time.

Parties should provide a description of the way in which progress with policies and measures to mitigate GHG emissions is monitored and evaluated over time. Institutional arrangements for monitoring of GHG mitigation policy should also be reported in this context (para 21).

Parties may wish to provide a brief description on the responsibilities on climate change related policies in the national government. Who is in charge of coordination of climate change related policies and measures among different institutions? Which are the most important implementing agencies, financial aspects and how climate related funds where allocated? If a Party is a member State to the European Union (EU), it may wish to provide key information on the transposition of common and coordinated policies and measures, including the EU emissions trading scheme and national allocation plans.

³ See decision 24/CP.8.

IV.B. Domestic and regional programmes and/or legislative arrangements and enforcement and administrative procedures

According to the Kyoto Protocol reporting guidelines (para 37), each Annex I Party shall report any relevant information on its domestic and regional legislative arrangements and enforcement and administrative procedures, established pursuant to the implementation of the Kyoto Protocol, according to its national circumstances, including:

- (a) A description of any domestic and regional legislative arrangements and enforcement and administrative procedures the Party has in place to meet its commitments under the Kyoto Protocol, including the legal authority for such programmes, how they are implemented, and procedures for addressing cases of non-compliance under domestic law;
- (b) A description of any provisions to make information on these legislative arrangements and enforcement and administrative procedures (e.g. rules on enforcement and administrative procedures, action taken) publicly accessible;
- (c) A description of any institutional arrangements and decision-making procedures that it has in place to coordinate activities relating to participation in the mechanisms under Articles 6, 12 and 17, including the participation of legal entities.

In addition, each Annex I Party shall provide a description of any national legislative arrangements and administrative procedures that seek to ensure that the implementation of activities under Article 3, paragraph 3, and any elected activities under Article 3, paragraph 4, also contributes to the conservation of biodiversity and sustainable use of natural resources (para 38).

IV.C. Policies and measures and their effects

According to the UNFCCC reporting guidelines (para 13), Parties shall communicate **information on policies and measures** adopted to implement commitments under Article 4, paragraphs 2(a) and (b), of the Convention. These need not have the limitation and reduction of GHG emissions and removals as a primary objective.

In reporting, Parties should give priority to policies and measures, or combinations of policies and measures, which have the **most significant impact** in affecting GHG emissions and removals and may also indicate those which are **innovative** and/or **effectively replicable by other Parties**. Parties may report on **adopted** policies and measures and those in the **planning** stage, but should clearly distinguish these from **implemented** policies and measures throughout (para 14).⁴

Policies and measures reported on should be those planned, adopted and/or implemented by governments at national, state, provincial, regional and local level. Furthermore, policies and measures reported may also include those adopted in the context of regional or international efforts. Policies and measures influencing international transport GHG emissions should be reported in the transport sector (para 15).

Parties should report on action taken to implement commitments under Article 4.2(e)(ii) of the Convention, which requires that Parties identify and periodically update their own policies and practices which encourage activities that lead to greater levels of anthropogenic GHG emissions than would otherwise occur. Parties should also provide the rationale for such actions in the context of their national communications (para 16).

Parties shall **organize** the reporting of policies and measures **by sectors** (i.e. **energy, transport, industry, agriculture, forestry and waste management, as well as cross-sectoral policies and measures), subdivided by GHG (e.g. policies and measures addressing fluorinated gases) (para 17).**

Each sector shall have its own **textual description of the principal policies and measures**, as set out in section D of the guidelines, supplemented by **summary tables** on policies and measures by sector (para 17).

⁴ Implemented policies and measures are those for which one or more of the following applies: (a) national legislation is in force; (b) one or more voluntary agreements have been established; (c) financial resources have been allocated; (d) human resources have been mobilized. Adopted policies and measures are those for which an official government decision has been made and there is a clear commitment to proceed with implementation. Planned policies and measures are options under discussion and having a realistic chance of being adopted and implemented in future.

Table 1. Summary of policies and measures by sector^a

Name of policy or	Objective and/or	GHG affected	Type of instrument	Status ^c	Implementing entity or entities	Estimate of mitigation impact, by gas (for a particular year, not cumulative,in CO ₂ eq.) ^d					
measure ^b	activity affected					1995	2000	2005	2010	2015	2020

a: Separate tables shall be completed for each sector, as set out in paragraph 17.

According to the UNFCCC reporting guidelines (para 22), the presentation of each policy and measure shall include information on each of the following subject headings: **name** and **short description** of the policy or measure; **objectives** of the policy or measure; **GHG affected**; **type** or types of policy or measure; **status** of implementation; and **implementing entity** or entities.

Parties should also include, as appropriate: a quantitative **estimate of the effects of individual policies and measures**, or collections of policies and measures. Such information includes estimated changes in activity levels and/or emissions and removals due to adopted and implemented policies and measures reported and a brief description of estimation methods. Information should be presented as an estimate for a particular year such as 1995, 2000 and 2005, not for a period of years (para 23).

To avoid repetition, Parties may choose not to include all information provided in the table in the textual description of the principal policies and measures. However, the textual description should include the name, objective and specific information on policies and measures not included in the table (such as for example: legal framework, development, implementation, lessons learned).

Parties may wish to present the aggregated effect of policies and measures for several complementary measures in case that individual effects are difficult to be estimated.

According to the UNFCCC reporting guidelines (para 24), Parties may include information on the costs of policies and measures, on non-GHG mitigation benefit and on how the policy interacts with other policies and measures.

Parties may wish to report on cost-effectiveness by clearly distinguishing between administrative/transaction costs and overall economic costs to the society when calculating the ratio between mitigation impact and costs of policies and measures.

According to the UNFCCC reporting guidelines (para 25), Parties shall provide information on how they believe their policies and measures are modifying longer-term trends in anthropogenic GHG emissions and removals consistent with the objective of the Convention.

Policies and measures in accordance with Article 2, of the Kyoto Protocol

According to the Kyoto Protocol reporting guidelines (para 34), each Annex I Party shall specifically address **policies and measures** implemented and/or further elaborated as well as cooperation with other such Parties **in achieving its quantified emission limitation and reduction commitment under Article 3**, in order to promote sustainable development.

Parties may wish to elaborate on any relationship between policies and measures implemented under the Convention and those implemented under Article 2 of the Kyoto Protocol.

According to the Kyoto Protocol reporting guidelines (para 35), on **aviation and marine bunker fuels**, each Annex I Party shall, in pursuit of Article 2, paragraph 2, of the Protocol, identify the steps it has taken to promote and/or implement any decisions by ICAO and IMO to limit or reduce associated emissions.

b: Parties should use an asterisk (*) to indicate that a measure is included in the 'with measures' projection.

c: To the extent possible, the following descriptive terms should be used: implemented, adopted, planned. Additional information may be provided on funding and the relevant time-scale.

d: This table was modified compared to the table shown in the UNFCCC reporting guidelines to allow to present the link between reporting on policies and measures and projections in a transparent way, including by providing information for years 2010, 2015 and 2020 required for projections.

In addition, , each Annex I Party shall also provide information on how it strives to implement policies and measures under Article 2 of the Kyoto Protocol in such a way as to **minimize adverse effects**, including the adverse effects of climate change, effects on international trade, and social, environmental and economic impacts on other Parties, especially developing country Parties under Article 4, paragraphs 8 and 9, of the Convention, taking into account Article 3 of the Convention (para 36).

IV.D. Policies and measures no longer in place

According to the UNFCCC reporting guidelines (para 26), when policies and measures listed in previous national communications are no longer in place, Parties may explain why this is so.

V. Projections and the total effect of policies and measures, and supplementarity relating to Kyoto Protocol mechanisms

According to the UNFCCC reporting guidelines (para 27), the primary objective of the projections section is to give an indication of future trends in GHG emissions and removals, given current national circumstances and implemented and adopted policies and measures, and to give an indication of the path of emissions and removals without such policies and measures.

V.A. Projections

According to the UNFCCC reporting guidelines (paras 28 and 29), Parties shall report a 'with measures' (WM) scenario, encompassing currently implemented and adopted policies and measures. Parties may also report "with additional measures" (WAM), encompassing planned policies and measures, and "without measures" (WOM) scenarios, excluding all policies and measures implemented, adopted or planned after the year chosen as the starting point for this projection. In reporting, Parties may entitle their 'without measures' projection as a 'baseline' or 'reference' projection, for example, if preferred, but should explain the nature of this projection.

Parties may report **sensitivity analysis** for any of the projections, but should aim to **limit the number of scenarios** presented (para 30).

In addition, emission projections shall be presented **relative to actual inventory data** for the preceding years (para 31).

In order to ensure consistency between projections and inventory data, the **starting point** for the with-measures and with-additional-measures scenarios should be the last year of inventory data (i.e. 2007 for NC5); and the starting point for the without-measures scenario should be 1995 or an earlier year (e. g. 1990 or the respective base year) (para 32).

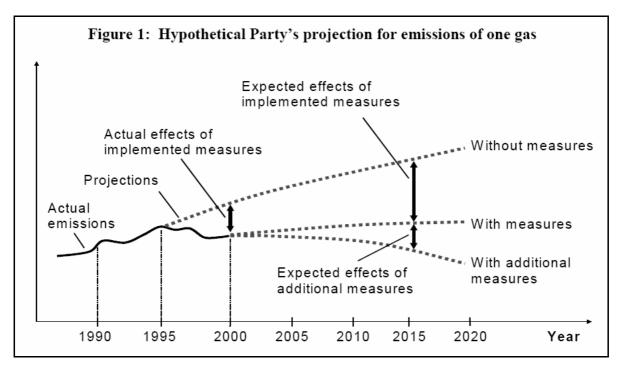
Projections shall be presented **on a sectoral basis**, to the extent possible, using the same sectoral categories used in the policies and measures section (i.e. energy, transport, industry, agriculture, forestry and waste management) (para 34).

In addition, , projections shall be presented **on a gas-by-gas basis** for the following greenhouse gases: CO₂, CH₄, N₂O, PFCs, HFCs and SF₆ (treating PFCs and HFCs collectively in each case). In addition, projections shall be provided in an **aggregated format for each sector** as well **as for a national total**, using GWP values (para 35).

Emissions projections related to fuel sold to ships and aircraft engaged in **international transport** shall, to the extent possible, be reported **separately** and not included in the totals (para 36).

For Parties using a base year different from 1990 for their inventories, in accordance with Article 4.6 of the Convention, actual data for that year shall be given (para 37).

Parties may wish to present their data according to the following timing: 2005, 2010, 2015 and 2020; see sample diagram in figure 1 below. Parties may wish to extend their data displayed in this diagram until the year 2030.



V.B. Assessment of aggregate effects of policies and measures

According to the UNFCCC reporting guidelines (para 39), Parties shall present the **estimated and expected total effect of implemented and adopted policies and measures.** The effects of individual policies and measures are to be reported in the policies and measures section, the total effects are to be reported in the projections section. Parties may also present the total expected effect of planned policies and measures.

According to the UNFCCC reporting guidelines (para 40), Parties shall provide an **estimate of the total effect of their policies and measures**, in accordance with the 'with measures' definition, compared to a situation without such policies and measures. This effect shall be presented in terms of GHG emissions avoided or sequestered, by gas (on a CO₂ equivalent basis).

The total effect of policies and measures can be calculated as the **difference between "with measures" and "without measures" scenario**, or as an **aggregation of individual effect** of each significant policy and measure (para 41).

Parties may wish to present their data according to the following time horizons for estimates: **expost** (for 1995, 2000, 2005) and **ex-ante** (for 2010, 2015 and 2020). Parties may wish to provide estimates also for 2030.

V.C. Supplementarity relating to mechanisms under Article 6, 12 and 17, of the Kyoto Protocol

According to the Kyoto Protocol reporting guidelines (para 33), each Annex I Party shall provide information on how its **use of the Kyoto Protocol mechanisms is supplemental to domestic action**, and how its domestic action thus constitutes a significant element of the effort made to meet its quantified limitation and reduction commitments under Article 3, paragraph 1, in accordance with the provisions of decision 5/CP.6.

V.D. Methodology used for the presented GHG emission projections

According to the UNFCCC reporting guidelines (paras 42 and 43), sufficient information should be reported to allow a reader to obtain a basic understanding of the projection models and/or approaches, including information on:

- Gases and sectors covered
- Type of model, its original purpose and any modifications (for example, top-down model, bottom-up model, accounting model, expert judgement)

- Strengths and weaknesses of the model
- Accounting for overlap and synergies between policies and measures
- Key assumptions and differences in assumptions between the current NC and the previous NC
- Sensitivity of projections to key assumptions (summary table 2 of the guidelines).

Parties shall present relevant information on factors and activities for each sector (para 48). To provide the reader with an understanding of emission trends in the years 1990 to 2020, Parties shall present relevant information on factors and activities for each sector.

Table 2. Summary of key variables and assumptions in the projections analysis

		Hist	oric	Projected ^a			
	1990	1995	2000	2005	2010	2015	2020
Variable 1 (e.g. GDP growth)							
Variable 2 (e.g. world oil prices in US\$/barrel)							

a: Parties may indicate with an asterisk where the data are not an output but have been assumed as an input to the emission projections.

VI. Vulnerability assessment, climate change impacts and adaptation measures

According to the UNFCCC reporting guidelines (para 49), a NC shall include **information on the expected impacts of climate change and an outline of the action taken** to implement Article 4.1(b) and (e) **with regard to adaptation**.

Parties may wish to focus their reporting in this part of the national communication on the following three elements: assessments, action and cooperation in the area of vulnerability, impacts and adaptation.

According to Article 4.1(b) and (e) of the Convention, all Parties shall formulate and implement programmes containing measures to facilitate adaptation to climate change; and cooperate in preparing for adaptation.

VI.A. Expected impacts of climate change

Parties may wish to focus their reporting in this section to **specific results of scientific climate impact research**. Parties are encouraged to use the Intergovernmental Panel on Climate Change (IPCC) Technical Guidelines for Assessing Climate Change Impacts and Adaptations and the United Nations Environment Programme (UNEP) Handbook on Methods for Climate Change Impacts Assessment and Adaptation Strategies.

VI.B. Vulnerability Assessment

Parties may wish to focus their reporting in this section to specific results of vulnerability assessments for certain sectors (e.g. agriculture, tourism, infrastructure etc.), Parties are encouraged to use the Intergovernmental Panel on Climate Change (IPCC) Technical Guidelines for Assessing Climate Change Impacts and Adaptations and the United Nations Environment Programme (UNEP) Handbook on Methods for Climate Change Impacts Assessment and Adaptation Strategies.

VI.C. Adaptation measures

According to the UNFCCC reporting guidelines (para 49), this section may refer, inter alia, to integrated plans for coastal zone management, water resources and agriculture.

Parties may wish to use the following table to summarize information on impacts, vulnerability and adaptation.

Table 2bis. Summary of information on vulnerability and adaptation to climate change

Vulnerable area	Examples/comments/adaptation measures reported				
Agriculture and food security	Vulnerability: [Event/process [is/are] expected to increase the risks of				
	[consequences]				
	Adaptation: [The following are being carried out:"]				
Biodiversity and natural ecosystems	Vulnerability: Adaptation:				
Coastal zones	Vulnerability: Adaptation:				
Drought	Vulnerability: Adaptation:				
Fisheries	Vulnerability: Adaptation:				
Forests	Vulnerability: Adaptation:				
Human health	Vulnerability: Adaptation:				
Infrastructure and economy	Vulnerability: Adaptation:				
Water resources	Vulnerability: Adaptation:				

VII. Financial resources and transfer of technology, including information under Articles 10 and 11, of the Kyoto Protocol

According to the UNFCCC reporting guidelines (para 50), Annex II Parties shall provide **details of measures taken** to give effect to their commitments under Article 4, paragraph 3 (financial resources), paragraph 4 (assistance in meeting costs of adaptation), and paragraph 5 (transfer of technologies), as stipulated by the reporting guidelines.

VII.A. Provision of 'new and additional' resources

According to the UNFCCC reporting guidelines (para 51), Annex II Parties shall indicate what "new and additional" financial resources they have provided pursuant to Article 4.3. Annex II Parties shall clarify how they have determined such resources as being "new and additional" in their NCs. In communicating this information, Annex II Parties shall complete table 3 of the UNFCCC reporting guidelines that refers to financial contributions to the Global Environment Facility (GEF) on an annual basis, starting in 1997.

In filling out this table, Annex II Parties may wish to refer to contributions related to the implementation of the Convention. Annex II Parties may wish to update the information provided in its NC4, for example for years 2005 - 2008.

VII.B. Assistance to developing country Parties that are particularly vulnerable to climate change

According to the UNFCCC reporting guidelines (para 52), Annex II Parties shall provide **detailed information on the assistance provided for the purpose of assisting developing country Parties that are particularly vulnerable** to the adverse effects of climate change **in meeting the costs of adaptation** to those adverse effects, in textual format and with reference to table 5 ("Bilateral and regional financial contributions related to the implementation of the Convention, 1997").⁵ Similar tables shall be completed for 1998, 1999 and, if the information is available, for 2000 and the most recent years (para 52 and note below table 5).

VII.C. Provision of financial resources

According to the UNFCCC reporting guidelines (para 53), Annex II Parties shall provide any information on any financial resources related to the implementation of the Convention provided through bilateral, regional and other multilateral channels.⁶

Annex II Parties shall complete table 4 on financial contributions to multilateral institutions and programmes.

⁵ A template for table 5 is contained in document FCCC/CP/1999/7.

⁶ A template for table 4 is contained in document FCCC/CP/1999/7.

Annex II Parties shall complete the table 5 on bilateral and regional financial contributions related to the implementation of the Convention (both on mitigation (by sector) and adaptation (capacity building, coastal zone management, other vulnerability assessments)).

According to decision 5/CP.7, Annex II Parties are requested to provide detailed information, in their national communications and/or any other relevant reports, on their existing and planned support programmes to meet the specific needs and concerns of developing country Parties arising from the impact of the implementation of response measures

According to decision 1/CP.10, Annex II Parties are requested to provide detailed information, including in their national communications, on progress made on support programmes to meet the specific needs and circumstances of developing country Parties arising from the adverse effects of climate change; (...) and from the impact of the implementation of response measures.

In filling out tables 4 and 5, Annex II Parties may wish to update the information provided in its NC4, for example for years 2005 – 2008.

Financial resources, including under Article 11 of the Kyoto Protocol

According to the Kyoto Protocol reporting guidelines (para 41), each Annex II Party shall provide information on the implementation of Article 11 of the Kyoto Protocol, in particular information on what new and additional financial resources have been provided, in what way these resources are new and additional, and how that Party has taken into account the need for adequacy and predictability in the flow of these resources.

In addition, each Annex II Party shall provide information on its contribution to the entity or entities entrusted with the operation of the financial mechanism (para 42).

Finally, any Annex I Party that has provided funding for the adaptation fund established in accordance with decision 10/CP.7 shall report on its financial contributions to this fund. In doing so, the Party shall take into account the information reported in accordance with paragraph 6 of decision 10/CP.7 (para 43).

Annex II Parties may wish to use the following table to summarize information on financial resources and technology transfer.

Table 5bis. Summary of information on financial resources and technology transfer

Official development assistance (ODA)	
Climate-related aid in bilateral ODA	
Climate-related support programmes	
Contributions to GEF (USD million)	
Pledge for third GEF replenishment	
Activities implemented jointly	
JI and CDM under the Kyoto Protocol	
Other (bilateral/multilateral)	

Abbreviations: CDM = clean development mechanism, GEF = Global Environment Facility, JI = joint implementation.

VII.D. Activities related to transfer of technology

According to the UNFCCC reporting guidelines (para 54), Parties shall, when reporting details of measures related to the promotion, facilitation and financing of the transfer of, or access to, environmentally-sound technologies, **clearly distinguish between** activities undertaken by the **public sector and** those undertaken by the **private sector**.

In addition, Parties shall, where feasible, report activities related to technology transfer, including success and failure stories, using the format table 6.⁷ Parties shall also report their activities for financing access by developing countries to "hard" or "soft" environmentally-sound technologies (para 55).

⁷ A template for table 6 is contained in document FCCC/CP/1999/7.

Finally Parties shall report information, in textual format, on steps taken by governments to promote, facilitate and finance transfer of technology, and to support development and enhancement of endogenous capacities (i.e. capacity building)⁸ and technologies of developing countries (para 56).

According to Article 10, paragraphs c and f, of the Kyoto Protocol, Annex I Parties shall report information on their programmes and activities undertaken to cooperate in the promotion of effective modalities for the development, application and diffusion of, and to promote, facilitate and finance, as appropriate, the transfer of, or access to, **environmentally sound technologies**, know-how, practices and processes pertinent to climate change, in particular to developing countries, including the formulation of policies and programmes for the effective transfer of environmentally sound technologies that are publicly owned or in the public domain and the creation of an enabling environment for the private sector, to promote and enhance the transfer of, and access to, environmentally sound technologies.

VII.E. Information under Article 10 of the Kyoto Protocol

According to the Kyoto Protocol reporting guidelines (para 39), each Annex I Party shall report its activities, actions and programmes undertaken in fulfilment of its commitments under Article 10.

Each Annex I Party shall report on the steps it has taken to promote, facilitate and finance the **transfer of technology to developing countries** and to build their capacity, taking into account Article 4, paragraphs 3, 5 and 7, of the Convention in order to facilitate the implementation of Article 10 of the Kyoto Protocol (para 40).

Parties may wish to provide a brief summary of information on the implementation of Article 10 of the Kyoto Protocol that is already included in the relevant sections of the national communication, including on Article 10, paragraph a, presented in section III.C "National systems in accordance with Article 5, paragraph 1, of the Kyoto Protocol, Article 10, paragraph b, presented in sections IV.B "Domestic and regional programmes and/or legislative arrangements and enforcement and administrative procedures" and VI.C "Adaptation measures"; Article 10, paragraph c, presented in section VII.D "Activities related to transfer of technology", Article 10, paragraph d, presented in section VIII "Research and systematic observation"; and Article 10, paragraph e, presented in section IX "Education, training and public awareness". Parties may wish to add any further information related to the implementation of Article 10 of the Kyoto Protocol that is deemed relevant and necessary.

Parties may wish to note that Article 10 of the Kyoto Protocol draws on continuing to advance the implementation of existing commitments of all Parties under Article 4, paragraph 1, of the Convention. These commitments include nation/regional programmes on inventory improvement (Article 10a), mitigation and adaptation (Article 10b), technology transfer (Article 10c), research and systematic observation (Article 10d), and public awareness and capacity building (Article 10e). Information on activities, actions and programmes undertaken in fulfilment of its commitments under Article 10 should be included in the relevant section of the NC5.

VIII. Research and systematic observation

According to the UNFCCC reporting guidelines (para 57), Parties shall communicate information on their actions relating to research and systematic observation.

⁸ Decision 2/CP.10 "Capacity-building for developing countries (non-Annex I Parties)" Parties are encouraged to further improve the implementation of capacity-building activities (...), and to report on the effectiveness and sustainability of capacity-building programmes in their national communications and other relevant documents

Decision 2/CP.7 "Capacity-building in developing countries (non-Annex I Parties)" Parties are invited to provide information through national communications and other reports to enable the SBI to monitor progress in the implementation of this framework Decision 3/CP.7 "Capacity-building in countries with economies in transition" Annex II Parties and Parties with economies in transition are invited to provide information to enable the COP and the SBs to monitor progress in the implementation of this framework, consistent with guidelines for the preparation of national communications

The NC shall address both **domestic and international activities** (for example, the World Climate Programme, the International Geosphere-Biosphere Programme, the Global Climate Observing System, and the IPCC). They shall also reflect **action taken to support related capacity-building in developing countries** (para 58).

VIII.A. General policy on research and systematic observation

According to the UNFCCC reporting guidelines (para 59), Parties shall provide summary information on **GCOS activities** (in accordance with paragraph 64 of the UNFCCC reporting guidelines (contained in FCCC/CP/1997/7, pages 101-108)).

According to the UNFCCC reporting guidelines (para 61), Parties should provide information about general policy on and funding of research and systematic observation. Parties should identify the opportunities for and barriers to free and open international exchange of data and information and report on action taken to overcome barriers (para 62).

According to Articles 10d and 10f, of the Kyoto Protocol, Annex I Parties shall report information on their programmes and activities undertaken to **cooperate in scientific and technical research** and **promote the maintenance and the development of systematic observation systems** and development of data archives to reduce uncertainties related to the climate system, the adverse impacts of climate change and the economic and social consequences of various response strategies, and promote the development and strengthening of endogenous capacities and capabilities to participate in international and intergovernmental efforts, programmes and networks on research and systematic observation, taking into account Article 5 of the Convention.

VIII.B. Research

According to the UNFCCC reporting guidelines (para 63), Parties should provide, inter alia, information on highlights, innovations and significant efforts made with regard to:

- (a) Climate process and climate system studies, including paleoclimate studies;
- (b) Modelling and prediction, including general circulation models;
- (c) Research on the impacts of climate change;
- (d) Socio-economic analysis, including analysis of both the impacts of climate change and response options;
- (e) Research and development on mitigation and adaptation technologies (para 63).

VIII.C. Systematic observation

According to the UNFCCC reporting guidelines (para 64), Parties should provide summary information on the current status of national plans, programmes and support for ground- and space-based climate observing systems and on global climate observing system (GCOS) activities in:

- (a) Atmospheric climate observing systems, including those measuring atmospheric constituents;
- (b) Ocean climate observing systems;
- (c) Terrestrial climate observing systems;
- (d) Support for developing countries to establish and maintain observing systems, and related data and monitoring systems.

IX. Education, training and public awareness

According to the UNFCCC reporting guidelines (paras 65 and 66), Annex I Parties shall communicate information on their actions relating to education, training and public awareness. In this section, Parties

should report, inter alia, on public information and education materials, resource or information centres, training programmes, and participation in international activities. Parties may report the extent of public participation in the preparation or domestic review of the national communication. Parties may present information on such aspects as:

- (a) General policy toward education, training and public awareness;
- (b) Primary, secondary and higher education;
- (c) Public information campaigns;
- (d) Training programmes;
- (e) Resource or information centres;
- (f) Involvement of the public and non-governmental organizations;
- (g) Participation in international activities.

According to decision 11/CP.8, as part of their national programmes to implement the Convention, Parties are encouraged to undertake activities under the following categories:

- (a) International cooperation
- (b) Education
- (c) Training
- (d) Public awareness
- (e) Public participation and
- (f) Public access to information

All Parties are requested to prepare reports (within their NCs, where possible) on their efforts to implement the New Delhi Work Programme (for the purpose of reviewing the programme in 2004 and 2007).

According to Articles 10e and 10f, of the Kyoto Protocol, Annex I Parties shall report information on their programmes and activities undertaken to Cooperate in and promote at the international level, and, where appropriate, using existing bodies, the **development and implementation of education and training programmes**, including the strengthening of national capacity building, in particular human and institutional capacities and the exchange or secondment of personnel to train experts in this field, in particular for developing countries, and facilitate at the national level public awareness of, and public access to information on, climate change. Suitable modalities should be developed to implement these activities through the relevant bodies of the Convention, taking into account Article 6 of the Convention.

Annexes

A.I Summary tables on emission trends

A.II Summary of reporting of the Supplementary information under Article 7, paragraph 2, of the Kyoto Protocol in the NC5

Parties may wish to use the following example table to summarize its reporting of supplementary information under Article 7, paragraph 2, of the Kyoto Protocol in its NC5.

Table 7. Summary of reporting of the Supplementary information under Article 7, paragraph 2, of the Kyoto Protocol in the NC5 (example of summary table)

Information reported under Article 7, paragraph 2	NC5 section
National systems in accordance with Article 5, paragraph 1	III.C
National registries	III.D
Supplementarity relating to the mechanisms pursuant to Articles 6, 12 and 17	V.C
Policies and measures in accordance with Article 2	IV.C
Domestic and regional programmes and/or legislative arrangements and enforcement and	IV.B
administrative procedures	
Information under Article 10	
Art 10a	III.C
Art 10b	IV.B and VI.C;
Art 10c	VII.D
Art 10d	VIII
Art 10e	IX
Financial resources (Annex II only)	VII.A-C
