

Reporting under the UNFCCC

Overview ANNEX I Parties

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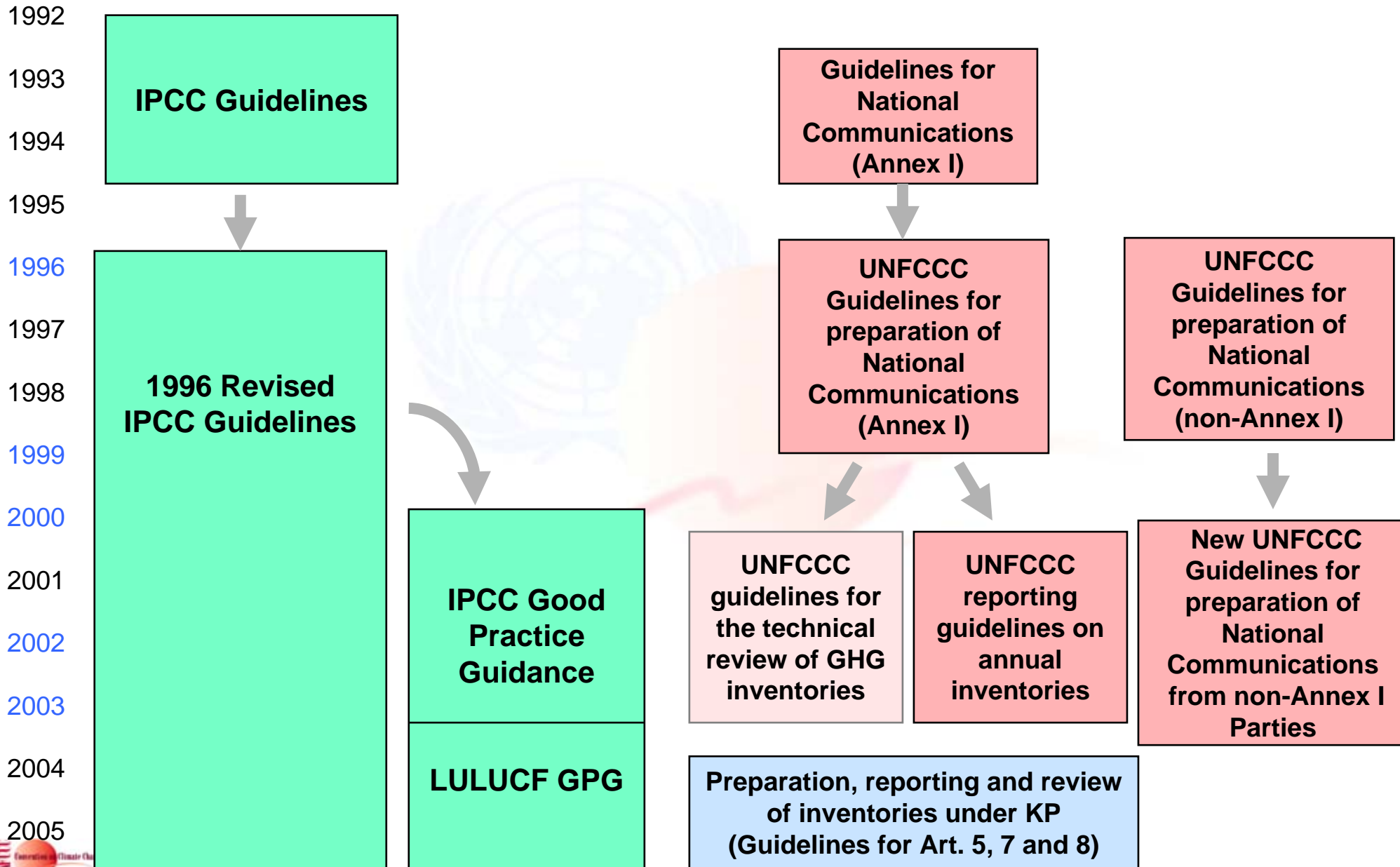
Background

- **Articles 4.1 and 12.1** of the Convention:
 - Communicate to the Conference of the Parties (COP) a national inventory of anthropogenic emissions by sources and removals by sinks of all greenhouse gases (GHG) not controlled by the Montreal Protocol, to the extent its capacities permit

Why GHG inventories are important?

- Fundamental to evaluate the objective of the Convention and to monitor the implementation of the Convention and the Kyoto Protocol (Annex I Parties)
- Base to evaluate the effectiveness of policies, development of methodologies and for the preparation/evaluation of projections
- Essential for the discussions and the work on future commitments (Annex I Parties)

UNFCCC and IPCC Guidelines



GPG2003 LULUCF

Land-use Categories and Methods

- GPG2003 adopted two major advances over IPCC 1996GL, namely:
 - ☞ *Three hierarchical tiers of methods*
 - ❖ they range from use of default data and simple equations to use of country-specific data and models to accommodate national circumstances
 - ☞ *Land-use-category-based approach for organizing methodologies*
- **land-use categories:** Adopted six land categories to ensure consistent representation, covering all geographic areas of a country.
 - ☞ *Forest land, cropland, grassland, wetland, settlements and others*
- Each land-use category is further disaggregated to reflect the past and the current land use
 - ☞ *Forest land remaining forest land*
 - ☞ *Lands converted to forest land*

CO₂ Pools, Non-CO₂ Gases and Sources of Non-CO₂ Gases

- CO₂ and non-CO₂ trace gases
- CO₂ emissions and removal are estimated for all the C-pools namely:
 - ☞ *Above-ground biomass*
 - ☞ *Below-ground biomass*
 - ☞ *Soil carbon*
 - ☞ *Dead organic matter and woody litter*
- Non-CO₂ gases estimated include:
 - ☞ *CH₄, N₂O, CO and NO_x*
- Sources of non-CO₂ gases:
 - ☞ *N₂O and CH₄ from forest fires*
 - ☞ *N₂O from managed (fertilized) forests*
 - ☞ *N₂O from drainage of forest soils*
 - ☞ *N₂O and CH₄ from managed wetland*
 - ☞ *Soil emissions of N₂O from land-use conversion*

Broad Approach and Steps in Adopting GPG2003 LULUCF

- Accounts for all land-use categories and sub-categories, all carbon pools and non-CO₂ gases, depending on key source/sink category analysis
- Select nationally adopted land-use classification system (categories and sub-categories) for inventory estimation. Each land category is further subdivided into:
 - ☞ *land remaining in the same category (e.g. forest land remaining forest land)*
 - ☞ *other land category converted to this land category (e.g. grassland converted to forest land)*
- Select appropriate land classification system most relevant to country
- Conduct key source/sink category analysis to identify the key:
 - ☞ *land categories and sub-categories*
 - ☞ *non-CO₂ gases*
 - ☞ *carbon pools*

Features of Land Category Based Approach – Forest Land

- Select appropriate tier level for key land categories and sub-categories, non-CO₂ gases and carbon pools, based on key category analysis as well as resources available for the inventory process
- Assemble required AD, depending on tier selected, from regional, national and global databases
- Collect EF/RF, depending on tier selected, from regional, national and global databases, forest inventories, national greenhouse gas inventory studies, field experiments and surveys and use of EFDB
- Select method of estimation (equations), based on tier level selected, quantify emissions/removals for each land-use category, carbon pool and non-CO₂ gas. Adopt default worksheet provided in GPG2003
- Estimate uncertainty
- Adopt QA/QC procedures and report results
- Report GHG emissions and removals using the reporting tables
- Document and archive all information used

Key Source/Sink Category Analysis

- “One that is prioritized within national inventory system because its estimate has significant influence on a country’s total inventory of direct GHGs in terms of absolute level of emissions (removals), the trends in emissions (or removals), or both”
 - ☞ *A land-use system or C-pool or non-CO₂ gas is significant if its contribution to GHG emissions/removals is >25%–30% of overall national inventory or overall LUCF sector inventory.*
- The term key category is used to represent both sources and sinks
- Key category analysis helps a country to achieve highest possible levels of certainty while using the limited resources available for the inventory process efficiently



Guidelines for preparation of national communications by Parties included in Annex I to the Convention

Part I:

UNFCCC reporting guidelines on annual inventories

Background

- **Articles 4 and 12 of UNFCCC**
- The COP-8 (2002) adopted:
 - Reporting guidelines on annual greenhouse gas inventories (decision 18/CP.8)
 - Guidelines for the technical review of greenhouse gas inventories from Annex I Parties (decision 19/CP.8)
- The COP-9 (2003) adopted:
 - Reporting guidelines on annual greenhouse gas inventories including reporting tables for LULUCF (decision 13/CP.9)
- The COP/MOP-1 (2005) adopted:
 - Modalities for the accounting of assigned amounts under Article 7.4 of the Kyoto Protocol (decision 13/CMP.1)
 - Guidelines for the preparation of the information required under Article 7 of the Kyoto Protocol (decision 15/CMP.1)
 - Guidelines for review under Article 8 of the Kyoto Protocol (decision 22/CMP.1)
- The COP-11 (2005) adopted:
 - Revised reporting tables for LULUCF to be used for 2007 submission and after (decision 14/CP.11)

UNFCCC reporting guidelines on annual inventories

Principles:

- transparency, consistency, comparability, completeness and accuracy
- Use of *good practice* as agreed upon by the COP
(Annex II Parties should have fully implemented the IPCC good practice guidance in their 2003 submissions, EITs in 2005)
- Detailed reporting of inventory data
- Transparent reporting of recalculations
- Information on record keeping (“paper trail”) to support the review process
- **Common Reporting Format** and **National Inventory Report**

UNFCCC reporting guidelines on annual inventories

Common Reporting Format

- Provides a framework for reporting information on:
 - GHG emissions
 - Methods and assumptions for each sector
 - Aggregate activity data and implied emission factors
 - Bunkers, feedstocks, recalculations and changes of methodologies in relation to previous years
- Facilitates:
 - Submission of annual inventory data in a standardized/uniform format from all Annex I Parties
 - Quick identification of possible errors and/or omissions
 - Comparison of aggregate activity data and implied emission factors over time and across Parties

UNFCCC reporting guidelines on annual inventories

National Inventory Report

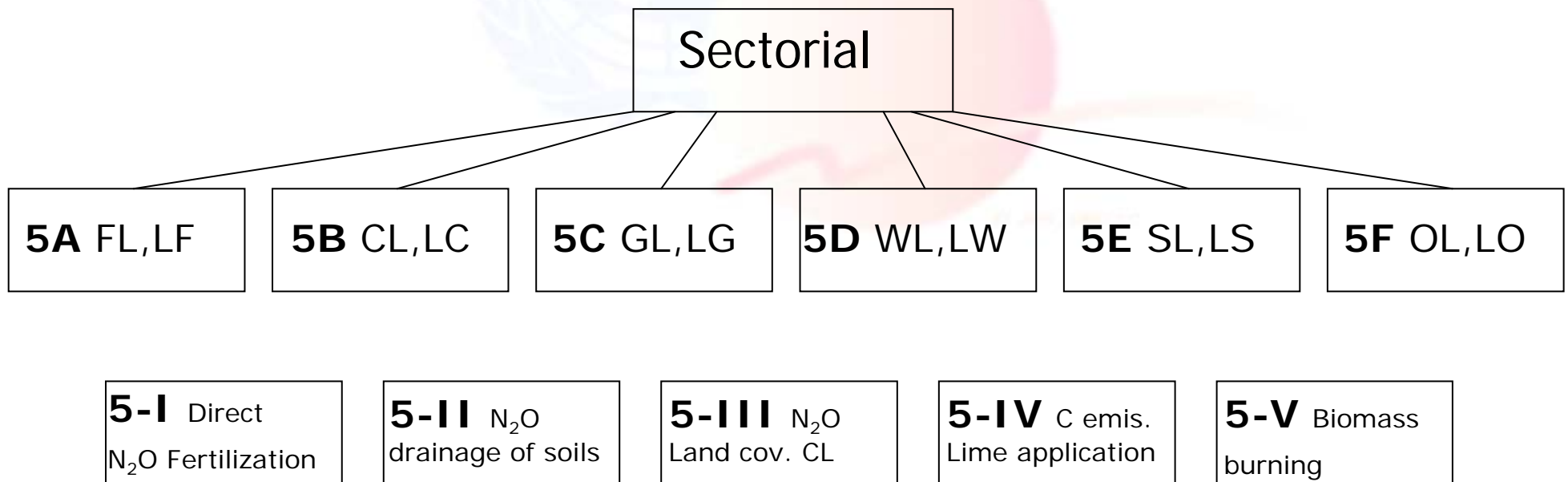
- Information on inventory data:
 - Disaggregated emission factors and activity data
 - References of sources for emission factors, activity data and rationale for their selection
- Information on methodologies :
 - Assumptions
 - References of sources and rationale for their selection
 - Anticipated future improvements
- Quality assurance/quality control (QA/QC) procedures
- Changes in response to findings of the review process
 - ✓ The UNFCCC reporting guidelines provide:
 - Agreed structure of the NIR
 - Framework to reflect the IPCC good practice guidance

National Greenhouse Gas Inventory

- All gases and sources (Annex A)
 - **Article 3.3/3.4 LULUCF activities not included until commitment period**
- Full geographic coverage
- Complete time-series
 - All years from base year up to most recent available
- Use of methods consistent with 1996 IPCC Guidelines and IPCC good practice guidance
- Submitted in standardized electronic reporting tables (common reporting format)
- National inventory report (description of methods used, data sources, emission factors, QA/QC, etc)

Land use, Land-use Change and Forestry

- Development of specific CRF to report LULUCF
- Estimations using LULUCF 2003 GPG



**Guidelines for the technical review of
greenhouse gas inventories from Annex I
Parties**

(decision 19/CP.8)

UNFCCC Guidelines for the technical review of GHG inventories

Objectives

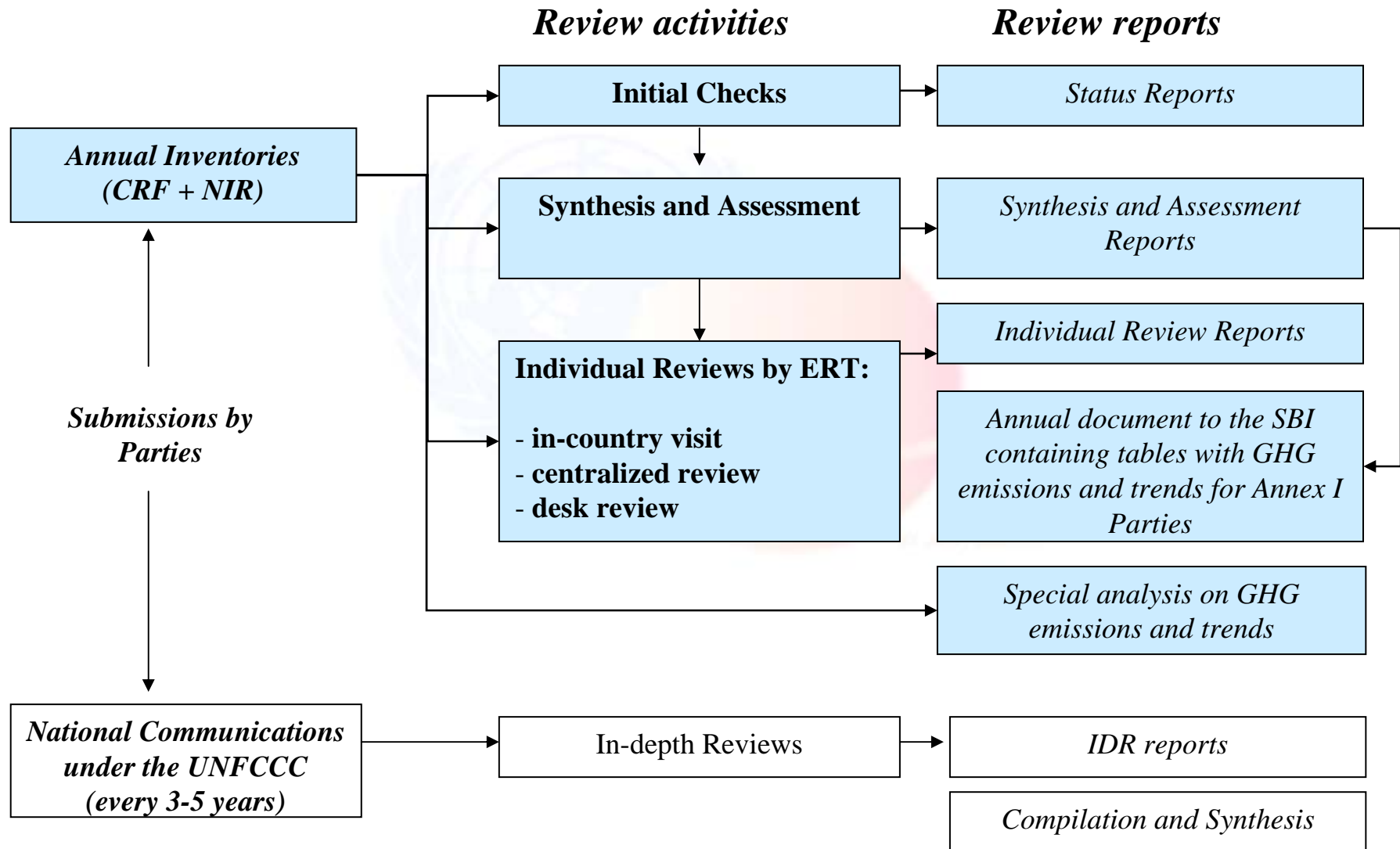
- Promote **consistency in the review** of annual GHG inventories of Annex I Parties
- Establish process for a periodic **thorough and comprehensive technical assessment** of GHG inventories (estimates, procedures, methodologies)
- Increase **confidence** of Parties in GHG inventories

Guidelines for the technical review of GHG inventories (cont.)

Purposes

- Ensure that **COP has adequate information** on GHG inventories and emission trends
- Examine in a **facilitative, open and transparent** manner the information submitted
- Provide COP with an assessment of the **implementation of commitments** of Annex I Parties under Art 4.1(a) and 12.1(a) of the Convention
- Assist Parties in **improving GHG inventories** quality

Review process of annual GHG inventories under the Convention



Guidelines for the technical review of GHG inventories (cont.)

General approach

- Complementary **3-stage approach**:
 - Initial check of annual inventories
 - Synthesis and assessment of annual inventories
 - Expert review of individual inventories
- Publication of reports for each stage
 - ⇒ During the process:
 - Parties can provide additional comments/information during all 3 stages
 - Consent of Party before publication of report
 - Additional explanatory text in case of disagreement

Guidelines for the technical review of GHG inventories (cont.)

INITIAL CHECK OF ANNUAL INVENTORY

- Completeness and correctness of format (CRF)
- Status report for each Annex I Party on UNFCCC website within 7 weeks from submission date
- Elements for status report:
 - Date of receipt
 - Complete submission and information according to the UNFCCC reporting guidelines
 - Gaps in data or documentation

Guidelines for the technical review of GHG inventories (cont.)

SYNTHESIS AND ASSESSMENT

- Facilitate the consideration of inventory data and other information across Parties
- Identify issues for further consideration during individual reviews based on the CRF information
- Findings in a **synthesis and assessment report**
 - Part I (tables): published on the UNFCCC web site
 - Part II (preliminary review findings): provided to Parties and experts

Guidelines for the technical review of GHG inventories (cont.)

REVIEW OF INDIVIDUAL GHG INVENTORY

Means

- Review by a team of nominated experts coordinated by the UNFCCC secretariat. Detailed examination of:
 - ❖ inventory estimates, methodologies and activity data
 - ❖ consistency with the UNFCCC reporting guidelines, including the IPCC guidelines and IPCC good practice guidance
- Review the inventory submission and supplementary materials
- Report under the collective responsibility of the team
- Three operational approaches :
 - Desk reviews (sending inventory information to experts)
 - Centralized reviews (experts meet in a single location)
 - Country visits

Result from the review: Review Report

- Length: 25-30 / 10 pages, including 2-3 pages summary (in-country review)
- Report overview:
 - Emission profiles and trends
 - Data sources (NIR, CRF, others)
 - *Institutional arrangements, documentation and archiving procedures, transparency, verification, QA/QC, uncertainties, completeness and consistency*
- Report by sector:
 - Completeness, methodologies, EF, AD, recalculations, uncertainties, results from previous reviews
 - *Input on institutional arrangements, documentation and archiving procedures, and areas for further improvement, if not covered in the overview section*

Materials and result of the review

Submissions:
NIR + CRF + references

Results from previous stages:

1. *Status reports*
2. *S&A report*
3. *Compilation of review findings*

Other materials to support review process:

- *UNFCCC guidelines*
- *IPCC guidelines*
- *IPCC good practice guidance*

Report template

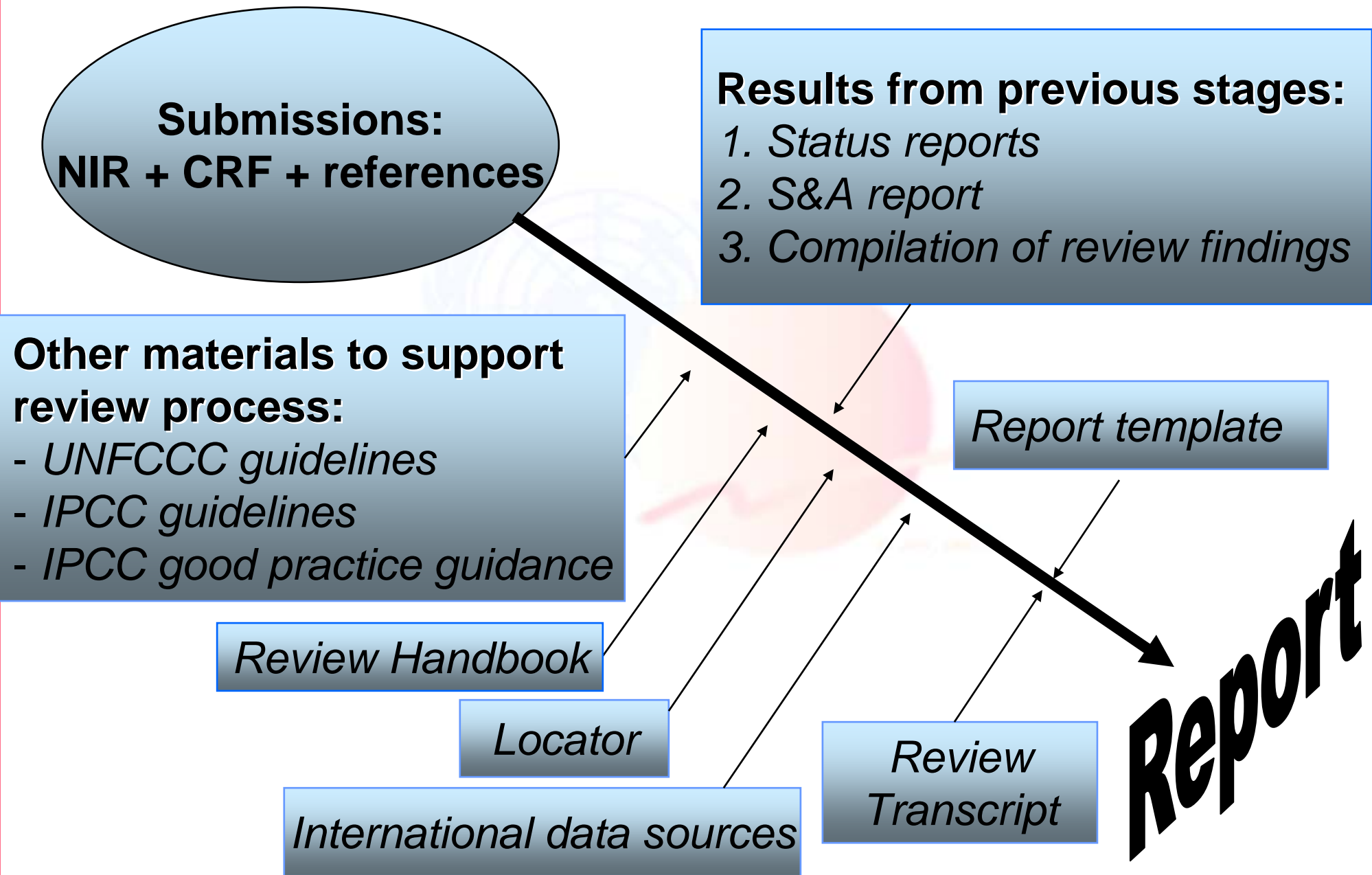
Review Handbook

Locator

International data sources

Review Transcript

Report



Initial Report, National System, Assigned Amount

Kyoto Protocol



Purpose of the Initial Report

“To facilitate calculation of Annex I Party’s assigned amount and demonstrate its capacity to account for emissions and assigned amount”

- Report due by 1 January 2007
- Submission triggers process to establish assigned amount and determine mechanisms eligibility
 - ☞ In-country review by expert teams under Article 8 to be completed within 1 year
 - ☞ All review reports forwarded to Compliance Committee for consideration

Late submission, or failure to resolve any problems identified, could leave Party ineligible to participate in Kyoto Protocol mechanisms and/or result in a reduction in assigned amounts

Elements of Initial Report

- National Registry
- **National System**
- **GHG Inventory**
- **LULUCF Elections**
- **Calculation of assigned amount and commitment period reserve**
- Agreement under Article 4 of Kyoto Protocol (“bubble”)

National System

- Required for estimation of GHG emissions and removals
- To be established by 1 January 2007
- Institutional, legal and procedural arrangements necessary to produce inventory (single national entity, inventory planning, QA/QC procedures, reporting and archiving of inventory information)
- National System requirements are functional
 - Compliance depends on ability to produce reliable inventory
- Any questions of implementation identified by expert review team to be considered by the Enforcement Branch
- National System required for mechanisms eligibility

Problems with National System could prevent Party from participating in Kyoto mechanisms

Base Year GHG Inventory

- Base year emissions used for assigned amount calculation
 - 1990 (unless other year or period has been approved)
 - Elected base year for F-gases (1990 or 1995)
 - Deforestation emissions (if LUCF constituted a net source)
- ERT may recommend application of an ‘adjustment’ if problem is identified
 - base year emission estimates adjusted downwards
- Estimate of emissions (adjusted if necessary) is recorded in compilation and accounting database

Problems with base year inventory
can result in a reduction in assigned amount

Establishment of Assigned Amount

- Party calculates assigned amount (Article 3.7 and 3.8)
 - Reviewed base year GHG inventory
 - Annex B target
 - An Article 4 agreement, if appropriate
- Party's calculation is reviewed during initial review
- Assigned amount recorded *after* review and consideration by the Compliance Committee
 - Includes any adjustments made

Once recorded, assigned amount is fixed
for the entire commitment period

**Guidelines for the preparation of the
information required under Article 7 of the
Kyoto Protocol**

(decision 15/CMP.1)

Guidelines for Article 7 of the Kyoto Protocol

- Supplementary information under Article 7.1 (GHG Inventory Annual Report) – from the first year of the commitment period
 - GHG inventory information, including steps to improve estimates in previously adjusted areas, separated estimates for Art. 3.3 and 3.4 activities
 - Information on Art. 3.3 and 3.4 activities (methodologies, location, area, etc)
 - Information on Kyoto Protocol units
 - Changes in National System
 - Changes in National Registries
 - Information on minimization of adverse impacts in accordance with Article 3, paragraph 14
- Supplementary information under Article 7.2 (National Communication) – including information on performance of National System

Inventory quality test for eligibility requirements

Decision 15/CMP.1 on Article 7.1 defines a failure to meet inventory methodological and reporting requirements as:

- Complete annual inventory (both Common Reporting Format and National Inventory Report) not submitted within 6 weeks of due date
- Omission of large Annex A key source that accounts for 7% or more of Party's aggregated emissions
- Total adjustments to Annex A sources in any year of the commitment period greater than 7% of submitted aggregated emissions
- Sum of the total adjustments for Annex A source during commitment period years exceeds 20% of submitted aggregated emissions
- A key Annex A source that accounts for 2% or more of emissions is adjusted in three consecutive years

Guidelines for review under Article 8 of the Kyoto Protocol

(decision 22/CMP.1)



Guidelines for review under Article 8

Objectives

- To establish a process for a **thorough, objective and comprehensive technical assessment** of the implementation of the Kyoto Protocol
- To promote **consistency and transparency in the review** of information submitted under Article 7
- To assist Annex I Parties in **improving their reporting** of information under Article 7 and the implementation of their commitments under the Protocol
- To **provide the COP/MOP** and the Compliance Committee, **with a technical assessment** of the implementation of the Kyoto Protocol

Guidelines for review under Article 8 (cont.)

General approach

- ERT shall provide a thorough and comprehensive **technical assessment of all aspects of the implementation** by a Party of the Kyoto Protocol
- ERT shall conduct **technical reviews** to provide information expeditiously to the COP/MOP and the Compliance Committee (**final review reports**)
 - Initial review (in-country visit before the first commitment period)
 - Annual reviews (centralized or desk review + one in-country visit during the commitment period)
 - Review of National Communication (in-country visit before the first commitment period)
- ERT: experts with recognized competence selected on ad hoc basis from the UNFCCC RoE, with a two lead reviewers (balance among Annex I and non-Annex I experts)

Guidelines for review under Article 8 (cont.)

Review of annual inventories

- Initial check by the ERT, with the assistance of the secretariat
 - Check as a desk or centralized review
 - Check of consistency, completeness and timely reporting of annual GHG inventory (NIR and CRF) and provision of supplementary information (**status report**)
 - Draft completed within **4 weeks after submission date**
 - Comments or additional information from the Party within **6 weeks of submission due date**
 - Final status report finalized within **10 weeks of submission due date**

Guidelines for review under Article 8 (cont.)

Review of annual inventories (cont.)

- Individual inventory review by the expert review team
 - Secretariat shall conduct a **standardized set of data comparisons** to be used in the review process (under the direction of the ERT)
 - Concluded within **one year of the due date of submission** (including adjustments procedures)
 - All problems identified by ERT and potential cases for adjustments sent to the Party **no later than 25 weeks from the submission due date**
 - Comments from the Party (information, revised estimates) **within 6 weeks**
 - ERT prepares a draft individual inventory review report (including adjusted estimates) **within 8 weeks of the receipt of comments**
 - Comments from the Party **within 4 weeks**, including information on whether it accepts or rejects the adjustment
 - ERT prepares a **final individual inventory review report within 4 weeks** of the receipt of the comments, including notification of disagreement from the Party on proposed adjustment and ERT recommendation

GHG Inventory Adjustments

- Intended to correct inventory problems for purpose of accounting for emissions and assigned amount
- Adjustments are conservative
 - Estimates adjusted downwards in base year
 - Estimates adjusted upwards for year of commitment period
- Guidance for calculation of adjustments given in the “Technical guidance on methodologies for adjustments under Article 5, paragraph 2, of the Kyoto Protocol” (decision 20/CMP.1)
- Applied only after Party has had opportunity to correct problems
- If adjustment is applied, then *adjusted estimate* is recorded in compilation and accounting database

Adjustments allow Party to remain in compliance with inventory and eligibility requirements in event of minor inventory problems – SPECIFIC for KP

Guidelines for review under Article 8 (cont.)

Review of Assigned Amounts and KP units

- Initial review covers the **calculation of the assigned amount**
 - Concluded within **one year of due date for submission** of the report on AA
 - For initial review, the time frames for initial check may serve as indication
- Annual review covers information reported on **KP units**, transaction log records and discrepancies, information contained in the national registry
 - Concluded within **one year of due date for submission** of Art. 7.1 information
- Desk or centralized review of information reported upon expiration of the additional period for fulfilling commitments (consistency of the information contained in the C & A database with the information contained in the Party's registry)
 - Completed within 14 weeks of due date for submission of information
(ERT – 8 weeks, Party's comments – 4 weeks; Final review report – 2 weeks)

Guidelines for review under Article 8 (cont.)

Review of National Systems

- Initial review (in-country visit) - **thorough and comprehensive review** of the national system
 - Concluded within **one year of due date for submission** of the information
 - All problems identified by ERT sent to the Party **no later than 6 weeks after the in-country visit**
 - Comments from the Party **within 6 weeks**
 - ERT prepares a draft review report **within 6 weeks** of the receipt of comments
 - Comments from the Party **within 4 weeks**, including additional information
 - ERT prepares a **final review report within 4 weeks** of the receipt of comments
- Desk or centralized review (annual inventory review) - reported **changes** in the national system since the first thorough review
 - Follows the timetable for the review of annual inventories

Guidelines for review under Article 8 (cont.)

- Review of national registries
- Review of information on the minimization of adverse impacts in accordance with Article 3.14
- Review of national communications and information on other commitments under the Kyoto Protocol
- Expedited procedure for the review for the reinstatement of eligibility to use the mechanisms

Recent developments in Reporting and Review procedures

- **Agreement for Expert Review Services** (*as of 2004 reviews, decision 12/CP.9*)
- **Code of practice for confidential information** (*as of 2004 reviews, decision 12/CP.9*)
- **Training** for new review experts (*decision 12/CP.9*)
- **Training programme for experts for the initial review (Art. 8)** (*decision 24/CMP.1*): *National systems, Application of adjustments*
- **New CRF tables for LULUCF** (*adopted by 13/CP.9 and revised by 14/CP.11*)
 - For 2005 submissions (separate LULUCF module: trial)
 - Integrated into Reporting Guidelines
- **CRF Reporter** operational for reporting in 2006 (including LULUCF)
- **Technical guidance on methodologies for adjustments** under Article 5.2 of the Kyoto Protocol (*decision 20/CMP.1*)
- **Flexibility in review processes during the period 2006–2007 for Annex I Parties (Streamlining)** (*decisions 26/CMP.1 and 7/CP.11*)

