



2019 Refinement to the 2006 IPCC Guidelines: Refinements in Volume 1 (General Guidance and Reporting)

Bonn Climate Change Conference (SB50)

SBSTA - IPCC Special Event on 2019 Refinement to the 2006 IPCC Guidelines

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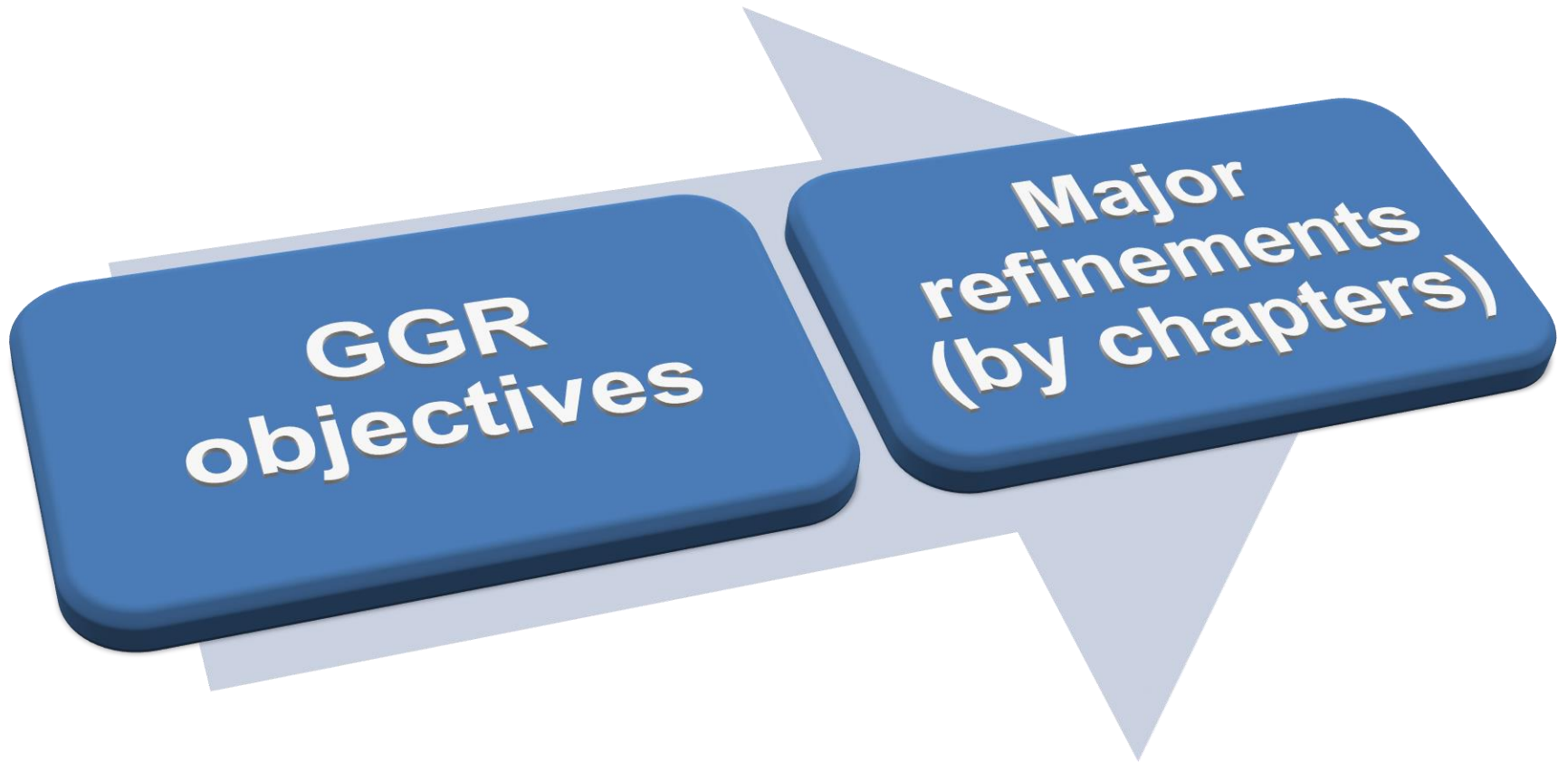
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INTERGOVERNMENTAL PANEL ON climate change



Outline



GGR objectives

□ To guide inventory compilers of Energy, IPPU, AFOLU and Waste sectors on:

- National GHG Inventory arrangements and management tools
- Data collection and adapting for inventory use
- Uncertainty assessment
- Methodological choice and identification of key categories
- Ensuring a consistent time series
- QA/QC and verification of emission estimates
- Use and reporting of models
- Calculation of emissions of precursors of GHGs and indirect emissions
- Reporting of emissions and removals

□ To provide reporting framework in standard tabular format:

- Tables facilitate consistency between countries, categories, gases and years
- They are not intended to prescribe specific reporting formats under the UNFCCC

Chapter 1 “Introduction to National GHG Inventories”

- ❑ New guidance on implementation of a national inventory management system, including:
 - Establishing arrangements to support the development, improvement and maintenance of national GHG inventories
 - Examples of institutional arrangements structuring, roles and capabilities of actors and stakeholders, data flows and suggested contents of Data Supply Agreements
 - Description of inventory management tools such as work plans, improvement plans, data management systems and quality systems with the illustrative examples
- ❑ Updated concept of “anthropogenic emissions and removals related to new optional approach for disaggregation of emissions and removals by human and natural components in Chapter 2 of Volume 4
- ❑ Elaborated guidance on the treatment of CO₂, CH₄ and N₂O emissions from combustion of biomass or biomass-based products

Chapter 2 “Approaches to data collection”

- New guidance for the development of CS emission factors, including:
 - Examples of main EF sensitive parameters
 - Potential sources of EFs
 - Update on standard measurement methods
- New guidance for data collection, including:
 - Outline of data collection steps and decisions
 - Treatment of confidential data with illustrative examples
 - Update on potential data sources
- New guidance on the integration of emissions reported from facilities into national GHG inventories, including:
 - Designing facility-reporting programmes for inventory use (e.g. quality goals and reporting requirements for facility data)
 - Facility-reported data integration options into national dataset with illustrative example
 - Use of facility data not originally designed for inventory use

Chapter 3 “Uncertainties”

- Updated guidance on uncertainty by providing more default values, calculation examples and best practices, including:
 - Structure of uncertainty assessment process
 - AD uncertainty assessment based on complete and random samples (with examples)
 - Clarification on key requirements for use of Approach 1 for combining uncertainties
 - Application of Approach 1 in practice
 - Uncertainty assessment steps description
 - Stepwise example demonstrating the use of Approach 2 uncertainty assessment (Monte-Carlo analysis)
- Excel-based addendum to Chapter 3: Tier 1 Uncertainty calculation tool

Chapter 4 “Methodological Choice and Identification of Key Categories” and Chapter 5 “Time series consistency”

- Updated guidance on Key category analysis, including:
 - Treatment of disaggregation of categories
 - Treatment of particularly significant subcategories
 - Simplification of equation on trend assessment (Approach 1)
 - Introducing of key categories ranks

- Elaborated guidance on time series consistency, including:
 - Information on how to ensure time series consistency when using facility level data and different data sources
 - Case studies of overlap, linear and non-linear interpolation method
 - Examples of surrogate data by sector

Chapter 6 “QA/QC and Verification”

- Elaborated definitions of QA/QC and verification, including:
 - Distinguishing of term “verification” defined in IPCC Guidelines from that used e.g. in carbon markets
- Updated guidance on comparisons with atmospheric measurements, including:
 - Advantages, limitations and prospects of using atmospheric measurements for verification of GHG emissions
 - Key steps in applying inverse modelling for verification of national inventory (with country examples)
 - Checklist to identify whether inverse model estimates are applicable for verification
 - Outline of inventory comparison to global/regional inverse modelling products and satellite observations
- New guidance on the use and reporting of models, including:
 - Identification of model suitability
 - Implementation and evaluation of model
 - Checklist for ensuring good practice in use of models

Chapter 7 “Precursors and indirect emissions”

- Elaborated guidance on indirect CO₂ inputs to the atmosphere from emissions of carbon-containing compounds, including:
 - Treatment of emissions of precursors and indirect CO₂ from fossil fuel combustion, fugitives and biogenic sources in national inventories
 - Options to address indirect CO₂ depending on metrics chosen (e.g. GWP for fossil methane)
 - Steps to estimate CO₂ inputs to atmosphere from NMVOC emissions
 - Description of non-biogenic sources of indirect CO₂ from oxidation of CH₄, CO and NMVOC
 - Carbon content in NMVOC species from different source categories
 - Carbon content in solvent portion of various materials (NMVOC emissions)

Chapter 8 “Reporting Guidance and Tables”

- ❑ Updated to reflect refinements made in other Volumes (although it was not explicitly included in the original scope of refinements), including:
 - Reporting guidance
 - List of GHGs
 - List of IPCC categories and their definitions
 - Reporting Tables

- ✓ Chapter is not intended to prescribe reporting format to be used under the UNFCCC (e.g. GWP, gases, structure of categories etc.)

Thank you

Link to the TFI web-site:

<https://www.ipcc-nggip.iges.or.jp/>

Link to the accepted 2019 Refinement (advance version):

<https://www.ipcc-nggip.iges.or.jp/public/2019rf/index.html>