

Annex II

Recommended Structure for Informative Inventory Report (IIR)

(in UNECE language, preferably in English)

Executive Summary (in English – to be updated yearly)

Suggestions to include in this section:

- Summary of the main differences in the inventory since the last submission (new sources, methods applied, revised energy balances or other activity data etc)
- Explanation of significant changes in emission trends,
- Highlight any incompleteness or timeseries inconsistencies in the estimates
- Highlight priorities for improvement
- Information on recalculation – main reasons for recalculations. Explanation of significant recalculations.
- Explanation of differences between reported national totals presented in Annex IV Table 1 (if any) (e.g. national total for the entire territory, national total for the entire territory (1997 Guidelines), national total for the EMEP grid domain).
- Clarification of the reason for differences in reported national totals for the entire territory with NECD and UNFCCC reports.

Chapter 1. Introduction

1.1 National Inventory Background

1.2 Institutional arrangements

(to be updated when there have been major changes since the last report)

Suggestions to include in these sections:

- Date when these sections were last updated
- A description of the legal and institutional arrangement for inventory preparation, institutional responsibilities for the inventory planning, preparation and management.
- Documentation and archiving system.
- Inventory improvement process (a description of how improvements are prioritised).

1.3 Inventory preparation process

(to be updated when there have been major changes since the last report)

Suggestions to include in this section:

- Date when this section was last updated.
- A brief description of the process of inventory preparation (e.g. data collection, data processing, data storage, data base systems, procedures and archiving).

1.4 Methods and data sources

(to be updated when there have been major changes since the last report)

Suggestions to include in this section:

- Date when this section was last updated.
- Brief general description of methodologies and data sources used. Overview of what is used in the national inventory in terms of country specific or default (i.e. EMEP/EEA Guidebook) emission factors, highlight which version of the Guidebook is used for default emission factors and methods.
- Elaborated description of activity data sources where data differs from national statistics..

1.5 Key Categories (to be updated each year)

Suggestions to include in this section:

- Explanation of methods used to determine key categories
- List of key categories by pollutant.

1.6 QA/QC and Verification methods (to be updated every 5 years or when there have been major changes since the last report)

Suggestions to include in this section:

- Date when this section was last updated.
- Identification of quality assurance/quality control (QA/QC) and verification methods used to ensure quality and time-series consistency of the inventory.

1.7 General uncertainty evaluation (to be updated every 5 years or when there have been major changes since the last report)

Suggestions to include in this section:

- Date when this section was last updated.
- Description of methods used to assess uncertainty and the use of uncertainty analysis to priorities inventory improvement.
- Summary of uncertainties by pollutant and sector.

1.8 General Assessment of Completeness (to be updated each year):

i) Sources Not Estimated (NE)

Suggestions to include in this section:

- List of sources not estimated in the inventory. Information on reasons why not estimated (NE) notation keys are used (e.g. missing activity data or methods, or the respective source is assumed negligible, etc)
- A qualitative assessment of their importance, currently and in future
- Highlight plans to calculate these sources in future or provide an explanation of why there are no such plans.

ii) Sources Included Elsewhere (IE)

Suggestions to include in this section:

- Identification of sources included elsewhere in Annex IV Table 1 and not assigned to a specific NFR
- Justification of the decision to aggregate these sectors rather than report the data under specific NFR categories, and intentions for future disaggregation aggregation.

iii) Other notation keys

Suggestions to include in this section:

- Description of the use of other notation keys in the inventory.

Chapter 2: Explanation of key trends (to be updated each year)

Suggestions to include in this section:

- Description of any time series inconsistencies.
- Explanation of significant changes in the time trend for key categories and pollutants (i.e. dips and jumps) and explanation of **steady /permanent decreases (or increases)** of emissions to enable a reviewer or data user to be confident that the changes result from changes in the activity/abatement/process of the source and not as a result of different methods or source data used for different years.

Chapters 3 – 9 Sectoral Methodologies:

For the following 7 chapters (chapters 3 – 9) Parties are encouraged to present category by category (NFR) details on methodologies for emission estimation including data sources, assumptions, use of emission factors and uncertainties. Further information, in detailed SNAP categories if available, may also be provided within each NFR category. Use of default emission factors and the use of tier 2 & tier 3 methods and country specific emission factors should be highlighted. Detailed descriptions of country specific emission factors and detailed methods as well as any tables on activity data and emission factor trends can also be elaborated in Appendix 2. If methods and data sources are different for some pollutants than for others then these differences should also be highlighted in these chapters and elaborated in Appendix 2 if necessary.

Chapter 3: ENERGY (NFR sector 1)

(to be updated when there have been major changes since the last report)

Suggestions to include in this section:

- Date when this section was last updated.
- Identification of major changes (recalculations) in estimation methodologies for key categories.
- Presentation of energy balance (including feedstocks) and energy statistics for key categories

including a description of the basis of mobile combustion estimates (e.g. fuel combusted or on fuel sold basis)

- Source category explanations of methods used to calculate emission estimates for key categories and other sources. Including: use of country specific emission factors, activity statistics, assumptions and methods and reference to default EMEP/EEA guidebook factors used for other sectors per NFR code or sector group as appropriate and where transparency permits
- Quantitative or qualitative assessment of uncertainties per NFR or sector group.
- Planned improvements.

Memo Items (transport emissions not included in national totals)

- Identification of major changes (recalculations) in estimation methodologies
- Presentation of activity statistics e.g. gasoline consumption,
- Explanation of methods used to calculate emission estimates
- Quantitative or qualitative assessment of uncertainties per NFR or sector group

Chapter 4: INDUSTRIAL PROCESSES AND PRODUCT USE (NFR sector 2)

(to be updated when there have been major changes since the last report)

Suggestions to include in this section:

- Date when this section was last updated.
- Identification of major changes (recalculations) in estimation methodologies for key categories.
- Presentation of activity statistics e.g. production statistics for key categories, solvents and paints consumed, % solvent based paints for key categories etc.
- Explanation of methods used to calculate emission estimates for key categories and other sources. Including:
- Source category explanations of methods used to calculate emission estimates for key categories and other sources. Including: use of country specific emission factors, activity statistics, assumptions and methods and reference to default EMEP/EEA guidebook factors used for other sectors per NFR code or sector group as appropriate and where transparency permits.
- Quantitative or qualitative assessment of uncertainties per NFR or sector group.
- Planned improvements.

Chapter 5: AGRICULTURE (NFR sector 3)

(to be updated when there have been major changes since the last report)

Suggestions to include in this section:

- Date when this section was last updated.
- Identification of major changes (recalculations) in estimation methodologies for key categories.
- Presentation of activity statistics e.g. animal population and fertilizer statistics for key categories.
- Explanation of methods used to calculate emission estimates for key categories and other sources, including use of country specific emission factors, activity statistics, assumptions

and methods and with reference to default EMEP/EEA guidebook factors used for other sectors per NFR code or sector group as appropriate and where transparency permits.

- Quantitative or qualitative assessment of uncertainties per NFR or sector group.
- Planned improvements.

Chapter 6: WASTE (NFR sector 5)

(to be updated when there have been major changes since the last report)

Suggestions to include in this section:

- Date when this section was last updated.
- Identification of major changes (recalculations) in estimation methodologies for key categories.
- Presentation of activity statistics e.g. municipal waste and clinical waste generation, % waste incinerated for key categories.
- Explanation of methods used to calculate emission estimates for key categories and other sources. Including: use of country specific emission factors, activity statistics, assumptions and methods and reference to default EMEP/EEA guidebook factors used for other sectors per NFR code or sector group as appropriate and where transparency permits.
- Quantitative or qualitative assessment of uncertainties per NFR or sector group.
- Planned Improvements.

Chapter 7: Other and Natural emissions

(to be updated when there have been major changes since the last report)

Suggestions to include in this section:

- Date when this section was last updated.

Other (NFR 6A, 6B)

- Identification of major changes (recalculations) in estimation methodologies for key categories.
- Presentation of activity statistics
- List of sources included in Other indicating which are included in national totals and which are not included and why.
- Explanation of methods used to calculate emission estimates for key categories and other sources. Including: use of country specific emission factors, activity statistics, assumptions and methods and reference to default guidebook factors used for other sectors per NFR code or sector group as appropriate and where transparency permits.
- Quantitative or qualitative assessment of uncertainties per NFR or sector group.
- Planned Improvements.

Natural emissions (11A, 11B, 11C)

- Identification of major changes (recalculations) in estimation methodologies
- Presentation of activity statistics e.g forest land , grassland etc. ,
- Explanation of methods used to calculate emission estimates
- Quantitative or qualitative assessment of uncertainties per NFR or sector group.

Chapter 8: Recalculations and Improvements (to be updated each year)

10.1 Recalculations

Suggestions to include in this section:

- Summary of recalculations (by sector, year and pollutant)
- Highlight implications for the inventory totals and trends with reference to the new methods documented in Sector methodology section.
- Identify new sources added to the inventory (reference new methods on the methodology chapter)
- Overview of recalculations that have occurred since the base year of each Protocol (relevant for assessment of compliance with each Protocol) (including a description of sources that were not included in the base year but have been added since or sources that were included in the base year and are no longer applicable)

10.2 Planned improvements

Suggestions to include in this section:

- Summary of planned programmes of improvement. (Reference detailed descriptions in sectoral chapters 3 – 9 above)

Chapter 9: Projections

Suggestions to include in this section:

- Description by source sector of general methods (models), data sources and assumptions used for estimating projected emissions and activity data reported in Annex IV Tables 2A and 2B. Include references to detailed documentation (where this is available).

e.g.

Overview of data sources, methods and models

- a) projections with measures (WM) ;
- b) projections with additional measures WAM (where appropriate)
- Explanations of circumstances justifying emissions that are temporarily higher than the ceilings established for it for one or more pollutants (after 2010)
- Sensitivity
- Time series consistency (including with historic inventory)

Sectoral Methods

- 9.1 Energy
 - 9.1.1 Stationary Combustion
 - 9.1.2 Mobile Combustion
- 9.2 Industrial Processes and Product Use
- 9.3 Agriculture
- 9.4 Waste

Chapter 10: Reporting of gridded emissions and LPS

(to be updated every 2 years or when there have been major changes since the last report)

Suggestions to include in this section:

- Date when this section was last updated.
- List gridded data and LPS years/pollutants provided to CEIP
- Identification of major changes (recalculations - - see Chapter 8) in estimation methodologies for individual GNFR categories pollutants and quantification and national totals.
- Brief description of methods used in the country to grid sectoral emission. (list surrogate data used for gridding?)
- Description of LPS reporting, completeness assessment of LPS information.
- Planned Improvements.

Chapter 11: Adjustments

[Executive Body decisions 2012/3 and 2012/12](#) concern adjustments to emission reduction commitments or to inventories under the 2012 amended Gothenburg Protocol. The decisions include the detailed lists of supporting information which must be provided in an IIR or in a separate report. The lists of required information are therefore not repeated here.

Paragraph 6 of Decision 2012/3 lists the extraordinary circumstances under which adjustments may be applied.

Paragraph 2 of Decision 2012/12 lists the supporting documentation required for a Party applying for an adjustment to its emission inventory or emission reduction commitment.

Paragraphs 8-13 of Decision 2012/12 lists the information that Parties applying an adjustment to annually reported emission inventories shall provide.

For each individual emission source category for which an adjustment procedure is relevant, Parties shall report the adjusted emission estimate using the template available as a separate Annex to the Emission Reporting Guidelines. Each Party shall also prepare and report the 'adjusted' national total emission estimate in the main worksheet of the NFR reporting template.

In particular, in a separate Adjustments chapter of their Informative Inventory Report (this section), or in a separate report, Parties that report adjusted emission estimates shall detail the methodology, data and emission factors for each year used in preparing the adjusted emission estimate. The adjusted emission estimates documented in the Informative Inventory Report shall be identical to those reported in the main worksheet of the NFR reporting template.

IIR References (To be updated each year)

IIR Appendices (to be updated as appropriate)

- Appendix 1: Key category analysis
- Appendix 2: Detailed methodological descriptions for individual source categories (where relevant)
- Appendix 3: Further elaboration of completeness, uses of NE & IE and (potential) sources of air pollutant emissions excluded (where relevant)
- Appendix 4: National energy balance (optional - useful for review process)
- Appendix 5: Additional information to be considered part of the IIR submission (where relevant) or other useful information
- Appendix 6: Other appendices (any other relevant information – optional)