

A Summary of the Revised 1996 IPCC Guidelines for National Greenhouse Gas Inventories

Background

This report summarises additions and revisions to the *1995 IPCC Guidelines for National Greenhouse Gas Inventories (1995 IPCC Guidelines)*. It also describes efforts made by the IPCC to harmonise methods with others. The additions and revisions were accepted by the IPCC at its Twelfth Session held in Mexico City (11-13 September 1996) after acceptance by Working Group I at its Sixth Session held in Mexico City (10 September 1996) in accordance with IPCC procedures. They are called the *Revised 1996 IPCC Guidelines for National Greenhouse Gas Inventories*. Within this report, a revision of an existing methodology or default data is referred to as a 'revision', 'revised method' or 'revised data'. Additional methods and default data are defined as 'new' methods or 'new data'.

Industrial Processes Chapter

1. The Industrial Process Chapter contains a broad range of *new* estimation methodologies for the so-called "new gases", that is perfluorocarbons, PFCs (e.g. CF₄ and C₂F₆), HFCs (e.g. HFC-125 and HFC-134a), sulphur hexafluoride (SF₆), the direct GHG (CO₂, CH₄, and N₂O), and ozone and aerosol precursors (SO₂, NO_x, CO, NMVOC) from industrial, non-energy, processes.
2. Direct GHG: The *new* methodologies cover CO₂, CH₄, and N₂O emissions from the production of mineral compounds, chemical industries and metal manufacture. The estimation of CO₂ emissions from cement production remains unchanged, but the methodologies for N₂O emissions from nitric and adipic acid production have been revised.
3. Aerosol and ozone precursors: For SO₂, NO_x, CO, NMVOC, *new* methodologies are presented, which draw upon and improve existing international methodologies. The sectors covered are: mineral compounds production, chemical industries and metal manufacture.
4. Fluorocarbons and SF₆: For HFCs and PFCs, and SF₆, methodologies are provided to estimate by-product and fugitive emissions from aluminium (Al) and magnesium (Mg) manufacturing processes, as well as emissions from their production and consumption. Two approaches are given: Tier 1 (a, b) for *potential* emissions, and Tier 2, for *actual* emissions. *Potential emissions* of PFCs, HFCs, and SF₆ are equal to the amount of a chemical consumed in a country, minus the amount of a chemical recovered for destruction or export in the year of consideration. *Actual* emissions estimates take into account the time lag between consumption and emissions. The Tier 2 methodology is, therefore, the more accurate estimation approach.

References

Australian Methodology for the Estimation of Greenhouse Gas Emissions and Sinks (1996).

Joint EMEP/CORINAIR Atmospheric Emission Inventory Guidebook (1996), 1st Edition, European Environmental Agency.

1995 IPCC Guidelines for National Greenhouse Gas Inventories, Reporting Instructions (Volume 1); Workbook (Volume 2); Reference Manual (Volume 3).

LIST OF ABBREVIATIONS

| | |
|------------------|--|
| CO ₂ | Carbon dioxide |
| CH ₄ | Methane |
| N ₂ O | Nitrous oxide |
| SO ₂ | Sulphur dioxide |
| NO _x | Sum of nitrogen oxide and nitrogen dioxide |
| CO | Carbon monoxide |
| NH ₃ | Ammonia |
| NMVOG | Non-methane volatile organic compounds |

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