

# TFEIP and IPCC Emission Efforts

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Author of the IPCC 2006 Guidelines

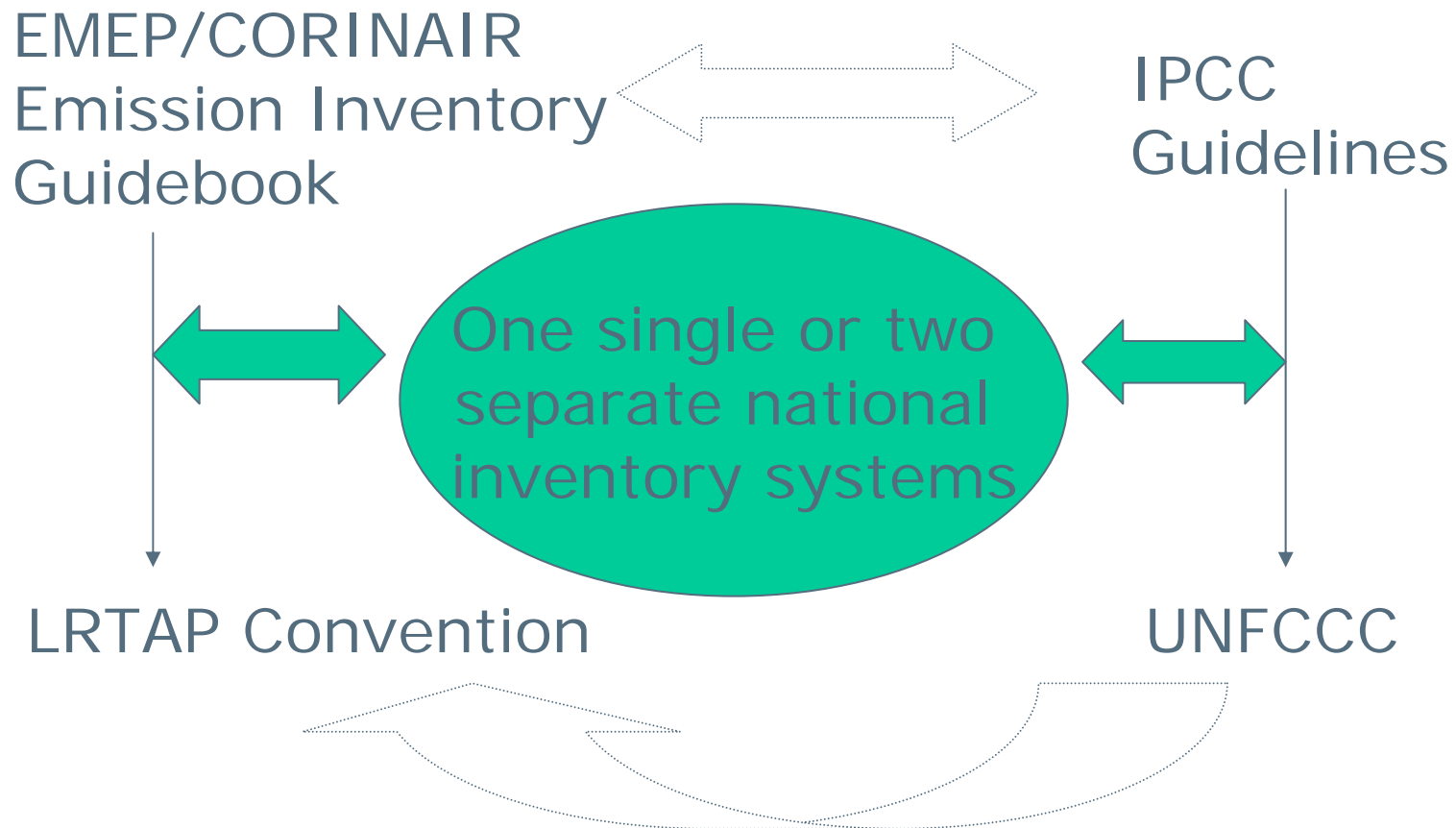
# Task Force on Emission Inventories and Projections

- Develops the EMEP emission inventory based on emission data submitted from Parties
  - Emission reporting *Guidelines*
    - Principles and definitions for inventories
    - Requirements (what and when)
    - Formats (how)
  - Emission estimation *methods*
    - The EMEP/Corinair Emission Inventory Guidebook in collaboration with the European Environment Agency
  - Methods for evaluation of *quality* of national emission inventories to support inventory reviews

# IPCC National Greenhouse Gas Inventory Programme

- Develops emission estimation methods and principles, including reporting guidance, for greenhouse gas inventories
  - 2006 IPCC Guidelines
- Methods for reviews and reporting guidelines for greenhouse gas inventories are left for the United Nations Framework Convention on Climate Change
  - Still based on the 1996 IPCC Guidelines and the 2000 and 2004 Good Practice Guidance
  - For consideration in 2007

# Emission data for use in the air pollution and climate conventions



# What are the similarities?

- To support development of i) policies and ii) to evaluate compliance with obligations
  - IPCC larger focus on ii) and EMEP on i)
- Process: Developed by national experts and formally adopted (EMEP/IPCC)
- Content: To a large extent common sources, methods and activity data used to estimate emissions
- Definitions
  - Delimitation of inventories to define national total
  - Except land use change and forestry

# What are the differences?

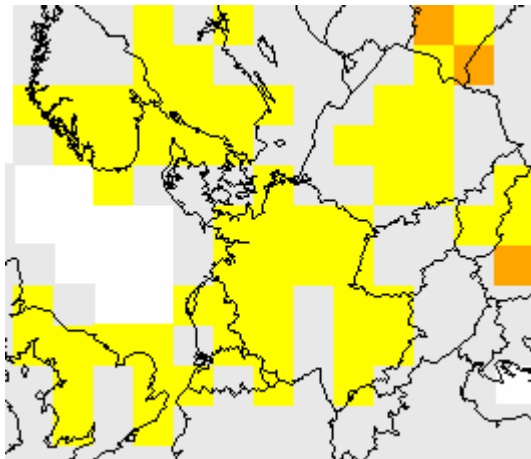
- EMEP/CORINAR
  - European focus
    - Also North America and EECCA (Eastern Europe, Caucasus and Central Asia)
- IPCC Guidelines
  - Global focus
    - Developed and developing countries



# What are the differences?

- EMEP/CORINAR

- Spatial resolution
- Guidance for estimating natural emissions, but no reporting requirements



- IPCC Guidelines

- National data
- Land use change and forestry
  - Emissions and removals from all managed land areas and conversions



# What are the differences?

- EMEP/CORINAR

- Gases included

- SO<sub>2</sub>
    - NO<sub>x</sub>
    - NMVOC
    - CO
    - NH<sub>3</sub>
    - PM (PM<sub>10</sub>, PM<sub>2.5</sub> and TSP)
    - Heavy Metals (incl. Hg)
    - Persistent Organic Pollutants

- IPCC 2006 Guidelines

- Gases included

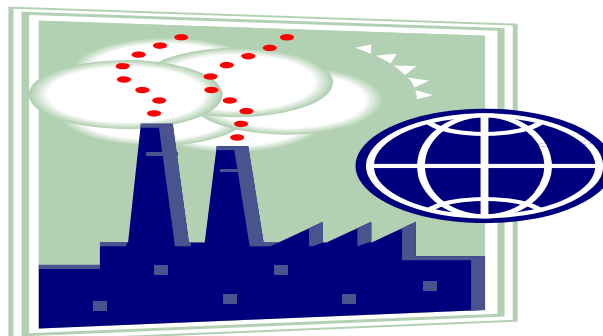
- CO<sub>2</sub>
    - CH<sub>4</sub>
    - N<sub>2</sub>O
    - PFCs, HFCs and SF<sub>6</sub>
    - Certain other fluorinated gases
    - (Ozone precursors and SO<sub>2</sub>)

# IPCC Guidelines

- Three Tiered methods for all sources
  - Energy
  - Industrial processes
  - Land use, land use change and forestry
  - Waste
- Extensive guidance on good practice in preparing inventories
  - Data collection
  - Quality control
  - Uncertainties
  - Methodological choice and resource prioritisation
- IPCC Emission Factor Database

# IPCC Guidelines – relation to air pollution

- It is recognised that ozone and aerosol precursors are relevant for climate
- Reporting of SO<sub>2</sub>, NO<sub>x</sub>, CO and NMVOC (+ NH<sub>3</sub>) are included
- IPCC 2006 Guidelines reference the EMEP/Corinair Guidebook for emission estimation methods for these substances



# EMEP/Corinair Guidebook

- Has been developed over nearly 15 years as a continuous effort
- The Guidebook contains simple and detailed methods for all sources
  - Including emission factors for a range of technologies
  - Simple = simple activity data and little knowledge of processes/technologies
- Technology description

# The future Guidebook

- Will be developed 2007-2008
  - Similar structure to the 2006 Guidelines
  - More guidance on good practice aspects
- Same scope as currently
- Update of information
- A complementary Emission Factor Database is considered



# Guidebook applicability

- Guidebook can in principle be used by all countries
  - Technology based
    - Road
    - Power plants
    - Industrial processes
- Less useful for developing countries where there are specific technologies *not* used in developed countries
  - Agriculture
  - Waste
- GAP forum manual - a supplement

# Official reporting

- Parties to the LRTAP Convention have obligations to report inventory data
  - National totals and sector data annually
  - Gridded data and projected emissions and activity data five yearly
  - Not all Parties are able to fulfill the details of obligations and not all Parties are obliged to
  - EMEP inventory is therefore gapfilled
- UNFCCC Parties – ozone precursors and SO<sub>2</sub>
  - Annex I Parties: “should” report
  - Non-Annex Parties: “encouraged to report” (÷SO<sub>2</sub>)

# EMEP and IPCC cooperation

- Many common objectives
- Informal cooperation since early nineties
  - Share experts
  - Active participation in meetings