# General Inventory Issues
# BOG Report

**3rd IPCC Expert Meeting**
**on Short-Lived Climate Forcers (SLCFs)**

*Virtual sessions, 11-15 April 2022*



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INTERGOVERNMENTAL PANEL ON climate change
WMO UNEP

# Applicability of General Guidance Provided in the 2006 IPCC Guidelines and its 2019 Refinement

1. Key category analysis (KCA)
2. Approaches to Data Collection and Time Series Consistency
3. Verification

# 1. Key Category Analysis (KCA)

***SLCF and direct GHGs should not be combined***

## 1.a. Quantitative approaches

*(if applicable common metric is not available for all SLCF gases)*

- *KCA should be performed on a pollutant-by-pollutant basis via two-step process*
  - *Step 1: Quantitative analysis in mass unit*
  - *Step 2: Use of health impact and radiative forcing metrics – (other weighting or equivalency metrics)*

- *IPCC and EMEP KCA guidance are a good starting point and will need to take into consideration*
  - *Approach for combining pollutants*
  - *Feasibility of an 80% threshold*

# 1. Key Category Analysis (KCA)

## 1.b. Qualitative criteria

- *General overview text on KCA should also discuss how qualitative analysis options can be used to identify and prioritize key areas for improvement.*
- *Apply IPCC/EMEP qualitative approaches on a pollutant-by-pollutant basis*
- *Compile list of additional data sources and information to support qualitative analysis, for examples*
  - *Health impacts*
  - *Impact of regional and local practices*
  - *Mitigation and abatement technologies*
- *Consider proxy dataset and how it can be applied to other regions to support qualitative assessment.*

# 2. Approaches to Data Collection and Time Series Consistency

## 2.c. Addressing finer temporal and spatial distribution

- *SLCF information should at minimum be national and on an annual basis*
- *National circumstances may require finer temporal and spatial distribution*
- *Consider tiered approach for spatial allocation taking into account that tier 1 should be applicable to all countries*
- *Consult with IPCC scientists and modellers to determine relevant level of temporal and spatial resolution*

# 2. Approaches to Data Collection and Time Series Consistency

## 2.d. Implications in terms of good practice for data collection

- *Provide general guidance on data quality, data collection and use of proxy data*
- *A good starting point is Chapter 2 Approaches to Data Collection, Volume 1 of the 2019 Refinement.*
- *Additional guidance may be required to:*
  - *Address data gaps and accessibility, with a focus on developing countries' data needs*
  - *Ensure the quality of surface, point source and road measurement results for inventory comparison and identification of areas for improvement*

# 2. Approaches to Data Collection and Time Series Consistency

## 2.e. Implications on time series consistency

- *No need to prescribe a long timeline for SLCF inventories.*

- *Recognise possible step changes to time series due to various factors such as*
  - *impact of AP/SLCF regulations*
  - *changes to country specific practices*

# 3. Verification

## 3.f. Verification with atmospheric observation

- *Recognise limited verification usage of current atmospheric observation and satellite data*
  - *Atmospheric concentration measurements of SLCF are not comparable to SLCF emissions.*
  - *Concentration of SLCF in the atmosphere is influenced by seasonal weather condition, temperature, wind, mixing, etc.*

- *Atmospheric observation and satellite data may be useful in identifying gaps and hot spots to support additional research and data collection.*

# 3. Verification

3.g. Regional/global independent monitoring system/dataset availability

- *Provide guidance on the applicability and usage of global databases, e.g. biomass burning for certain regions*
  - *Global inventories such as EDGAR may be used as a starting point for inventory comparison purposes but **not for verification purposes.***
- *Consider guidelines for in-situ measurements and correlation approaches for comparison purposes.*
- *Compile list of additional independent data sources for local and regional comparison*

# Any Questions?