

TFEIP BLACK CARBON INITIATIVE



TFEIP

TASK FORCE ON EMISSION
INVENTORIES & PROJECTIONS



TFEIP Black Carbon WG

TFEIP 2019 Annual Meeting

TFEIP Work Plan 2020-2021

EMEP Steering Body Sept 2019

- 1) **CHECK** and define **GUIDEBOOK** current methods, identify gaps/improvement needs.
- 2) **SUPPORT** inclusion of **BC** in a revised **Gothenburg Protocol**
- 3) **COOPERATE** with experts and international bodies



Voluntary work by 15 TFEIP Experts in checking current EFs Feb-May 2020

Classification of measurement method

Petzold et al. 2013 <https://nilu.brage.unit.no/nilu-xmlui/bitstream/handle/11250/2384208/acp-13-8365-2013.pdf?sequence=3>

- EC elemental carbon
- eBC equivalent BC
- rBC refractory BC
- Un unknown

Assessment for improvement needs
Teleconferences



Remaining issues (11May2020)

Some references and documentation
Support to IPCC on SLCF methodologies

Conclusions from Expert Teams' Work (1/2)

- >100 unique values, based on 26 references
many old/outdated (up to 40 yrs, 1988- 2011)
- Out of unique values checked >>90% represent EC
- Unit %PM_{2.5}
some %TSP/%PM, g/fuel



Conclusions from Expert Teams' Work (2/2)

Improvement needs

- Representativeness in EMEP area, e.g. measurements in China, Africa
- Old references, literature studies to catch up new data/fill in missing data (e.g. energy, some new data available for small combustion)
- Harmonise presentation, incl. classification EC/eBC/rBC/Un
- Clarify/improve of method



ITEMS FOR DISCUSSION 14.5.2020 TFEIP BC Session

- **Presentation of material in the Guidebook**

A more common structure in the annexes/Footnotes in EF tables?
Classification into EC/eBC/rBC/Un

- **Improvement**

Voluntary contribution to GB improvement? (as in addition to current checks)

Prioritizing updates, common rules?

e.g. age of references, key sources where missing/old references...

Already identified sector specific improvement needs...

1A1/1A2/1B: thorough literature review

1A3: cold climate impact on BC, old vehicles, hybrid vehicles, urban/rural driving conditions
navigation fuel change in the Arctic (HFO)

1A4: update of old/check for representativeness for EMEP

Funding?

Possibilities for funding of thorough literature studies/bigger projects

- **Support to IPCC SLCF**

Voluntary contribution to provide IPCC information on:

- EMEP/EEA GB update needs (BC, Sox, Nox, NMVOC, CO, NH₃, PM_{2.5})
- Applicability of GB methods in developing countries

THANK YOU

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