

Non-CO₂ emission summary

Emission generation issues

- *Which **downscaling** methodologies will be used? Each IAM on its own?*

Each IAM will indeed use their own methodology

Emission generation issues

- *Which gridded **2005 dataset** (EDGAR has known biases)? Update with regional estimates?*
 1. Harmonization will be performed with year 2000 data (EDGARFT2000) + OC/BC from T. Bond + SO₂ from S. Smith + other possible updates
 2. Compare w/ additional regional inventories

Draft list

1. Biomass burning: separate ag waste, slash/burn, fuel wood
2. Industrial: power plants
3. Agricultural
4. Transportation
5. Domestic
6. NO_x from soils
7.

Emission generation issues

- *Which emissions? Biomass burning (forest fires, domestic use) and other natural emissions (isoprene linked with land-use?)?*
 - 1) There will be a list of sectors provided to the IAMs of specific emissions that will have to be split from the total.
 - 2) Only anthropogenic emissions will be provided by IAMs

Emission generation issues

- *Can IAMs report **Shipping/Aircraft** emissions?*
 - 1) Shipping seems reasonable easy
 - 2) Aircraft will require input from the chemistry community on the present-day distribution and possibly future

Emission generation issues

- *Can we do **stack height** emissions or just surface emissions (mostly important for SO_2)?*

Yes if we restrict this to power plant emissions

Emission generation issues

- *Inter-comparison of ammonia emissions*

Easy for IMAGE, work has to be done for the other groups (can IMAGE lead this?)

Data format: proposal

- Temporal resolution: 5-10 years



We will perform linear interpolation in-between & add seasonal cycle

- Horizontal resolution: 0.5 degrees
- File format: ASCII or netCDF
- Units: mol/cm²/s or g/m²/s

What is the molecular weight of NMVOC?

- Provide global (/regional/sectoral?) totals for consistency check.

IAMs
ESMs

Time line

