



# ICP Modelling and Mapping activities

*Focusing:*

- New scientific findings, LTS, Monetization, trend analysis
- Interactive effects with other issues
- Engagement of Parties
- Collaboration with other organizations

**Jean-Paul Hettelingh,**

**With the Best Regards from Anne Christine Le Gall,  
chair of ICP M&M**



## Issues of particular interest:

- LTS
- Monetization
- long term trends in relation to protocols

Results of meeting warsaw

## LTS: Air pollution under the change of climate and biodiversity

### Atmospheric pollution and climate change

- Change of climate and land use makes a return to past ecological “favourable” conditions (Natura 2000) very challenging
  - ⇒ “favourable ecological conditions”: WGE assessments require future targets

### Atmospheric pollution and biodiversity

- Modelling vegetation impacts require cross-party agreement on biodiversity indicators:
  - ⇒ Propose a “New” generic indicator: “No net loss of biodiversity”
  - ⇒ On going completion of vegetation database
  - ⇒ On going model developments

## ICP M&M / CCE proposes a 2012-2014 call for data that links air pollution to biodiversity

- Focus on simple generic biodiversity indicator termed “no net loss of biodiversity” (NNLB).
- NNLB to reflect any country or ecosystem specific biodiversity indicator chosen by NFCs.
- Further development to develop simple “regional” dose-response functions based on EUNIS classification and dynamic soil-vegetation modelling
- Call to be issued in the autumn 2012 for response in the spring of 2014 to help NFCs planning and increase contributions

**Seeking WGE approval**

## Monetization

- UK on-going study suggests
  - ⇒ The evaluation of cost through ecosystem services integrates several effects of air pollution on ecosystems.
  - ⇒ Indicative damage environmental costs are similar to human health costs.
- Discussions with NEBEI
  - ⇒ common workshop ?
  - ⇒ NFCs help develop operational indicators (NNLB)

## Long term trend assessments

- ⇒ CCE scenario analysis reported in CCE Status Reports
- ⇒ *2013 joint document: compile historical trends from all ICPs (for TFIAM/WGE report to be discussed in bureau meeting) ?*

# Engagement of Parties, in particular EECCA countries

# Delegates are motivated and express a varying degree of Parties engagement

## 2012 meeting in Poland:

- 48 delegates, 23 countries incl. China, US, Can
- Including 5 EECCA countries (Azerbaijan, Republic of Moldova, Russia, Slovenia, Ukraine)

## Several delegates mentioned funding difficulties

- ICP M&M modelling capacity depends on national fundings
- Delegates were encouraged to contact ministries and funding agencies in charge of biodiversity as well as air pollution

# Collaborations of ICPM&M with other relevant organisations

Occurs regularly through CCE and NFCs activities

- **FP7 research programmes such as ECLAIRE**
- Convention on Biological Diversity
- The European Topic Centre on Biological Diversity
  - ⇒ Article 17 reporting (ICP M&M call for data 2010-2011)
  - ⇒ ...EC interest
- Contribution to European Thematic Strategy on Air Pollution (project with EEA/ETC Air pollution and climate change mitigation)



## Objectives:

- To provide robust understanding of air pollution impacts on European land ecosystems including soils under changing climate conditions
- To provide reliable and innovative risk assessment methodologies for impacts, including economic implications to support EU policy

**Focus:** Ozone and nitrogen, interactions with VOCs, aerosols and sulphur

## Scientific workpackages:

- Emissions and exchange processes (experimental)
- Emissions and exchange at local, EU to global scale (modelling)
- Ecological response processes & thresholds (experimental, data mining)
- Ecological responses at regional & European scale (modelling)
- Integrated risk assessment & policy tools

Convention Bodies: TFRN, CIAM, CCE, ICP Vegetation, ICP Forests, EMEP/MS-CW, NEBEI

## WGE has compiled several documents to inform policy makers on air pollution effects...feedback required ?

New indicators were presented in the “Impact report” and showed that:

- Eutrophication and ozone will remain a problem across UNECE area with the proposed emission reduction
- Impacts to materials need to be evaluated at a fine (urban) scale
- Acidification decrease is a success story of the Convention but will also remain in some areas

Annex 1 of the 2012 Gothenburg Protocol and its guidance document

- Provide tools to assess the evolution of atmospheric pollution impacts for each party

Information “non technical” documents and brochures on Nitrogen effects, ozone impacts and atmospheric pollution impacts have been published

And all supporting technical documents

## Future incl. Workplan 2012-2013

Contribute to (final) assessment of atmospheric pollution impacts for the 2012 Gothenburg Protocol (final guidance document using 2005 as reference reference and GP2020 as scenario)

- (template for) country reports (see minutes WGE/EMEP 2011) ?

Support the Thematic strategy on air pollution

Call for contribution

- Nitrogen impacts and Biodiversity, climate change, modelling
- No net loss biodiversity indicators

Developments on short life climate forcers (WGE ?)

⇒ Seek link with UNEP Climate and Clean Air Coalition?

Collaborations with EEA and European Topic Centre for Biodiversity

Valuing atmospheric pollution impacts on ecosystems (not in workplan)

# CCE 23rd Workshop + ICP M&M 29th Task Force

## 8th-11th april 2013

(Tentatively)

## Copenhagen

