

# Modelling and Mapping activities under the UNECE CLRTAP

## Future links and cooperation with ICP Forests / FutMon intensive monitoring

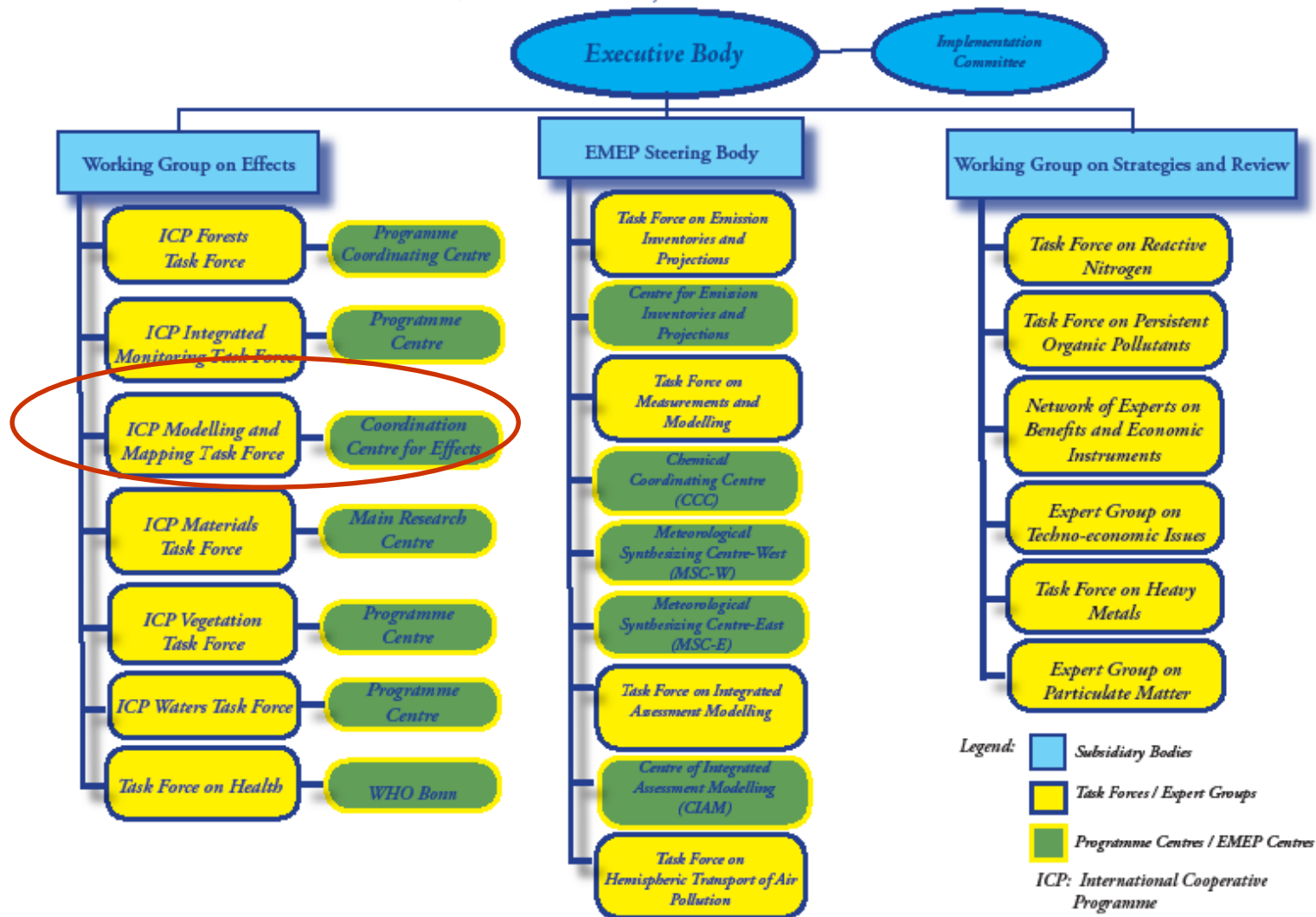
Gudrun Schütze

on behalf of Till Spranger,

chairman of ICP Modelling and Mapping

# UNECE Convention on Long-range Transboundary Air Pollution

INTERGOVERNMENTAL BODIES, EXPERT GROUPS AND SCIENTIFIC CENTRES



# Parameters and intensity of M&M activities

Critical Loads (CL) and their exceedances plus dynamic modelling (DM) results for acidification and eutrophication (and heavy metals).

## Number of sites (and countries):

25 countries contribute to the work of ICP M&M

>1,000,000 data records from NFCs (in 2008):

calculated CL: 20 countries (Ac) and 19 countries (NutN),

empirical CL: 12 countries,

dynamic model results: 12 countries.

for other countries: CCE background database)

## Main activities (from 2008 Workplan) (1)

Workshop on modelling **nitrogen** effects, including biodiversity (with ICPs and other programmes)

Reporting:

- ⇒ [www.mnp.nl/cce](http://www.mnp.nl/cce) - 18<sup>th</sup> CCE Workshop (Berne 2008)
- ⇒ M&M Task Force minutes
- ⇒ CCE Status Report 2008
- ⇒ WGE Documents 2008/3 and /11

## Main activities (from 2008 Workplan) (2)

### 2008 call for data (acidity & nutrient nitrogen)

- Submission of CL and DM parameters
- Ensemble assessment of impacts to improve robustness
- **2007/8 CL dataset can be used for policy applications such as Gothenburg Protocol revision!**

## Main activities (from 2008 Workplan) (3)

- Report on links between air pollution and climate change effects on European ecosystems  
⇒ **WGE document 2008/10 (cooperation with ICP IM)**
- Report on modelling critical loads of heavy metals and trends of risks  
⇒ **Windermere Workshop Report, WGE document 2008/14;**

# Future links and cooperation with ICP Forests / FutMon intensive monitoring

## ICP M&M cooperation with other ICPs

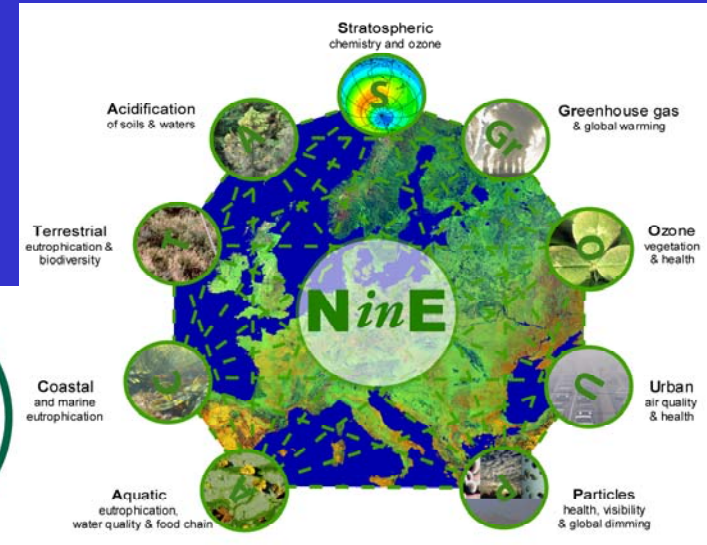
- a) Extension of databases of M&M National Focal Centres (NFCs) with data from national sites of other ICPs as appropriate
- b) Increased application of M&M methodologies by NFCs of other ICPs
- c) Draft CLRTAP “Guidelines” for reporting on the monitoring and modelling of effects of air pollution

## Further research

- review empirical CL for N
- review “recovery” targets
- improve knowledge of impacts of exceedances of empirical and modeled CL
- assess trends of biodiversity relevant indicators on a regional scale
- apply coupled biodiversity / air pollution / climate change models on regional scale

## Use of CL in biodiversity policies and other policies

- Exceedance of CL used as risk indicators by SEBI2010, EEA and EUROSTAT
- Assessment of nitrogen effects including links to other policy areas (TFRN, ENA)



## COST 729 Mid-term Workshop on

# Nitrogen Deposition and Natura 2000

Science and practice in determining environmental impacts

## Goal

- Develop harmonized approaches for assessing the impacts of atmospheric nitrogen deposition on Natura 2000 and to inform future policy development.

## Key Issues

- Pairing national scientists and conservation practitioners
- Considering site-based case studies
- Comparing approaches between countries
- Developing clear messages to improve assessments
- Exploiting cross-compliance and informing future policy development
- Communicating the scale of the problem

Coordinates: **Belgium May 2009**

# Suggestions to ICP Forests/FutMon

- Continue CL and DM application on Level II sites;
- Do not use throughfall data as surrogate of total deposition in effects modelling, better: apply parameterised dry dep models using site air concentration and meteorological data;
- Contribute knowledge for an explicit definition for ecosystem integrity / functionality;
- Use results of cooperation ICP M&M and ICP F in national and international context (CLRTAP-WGE, Implementation of CBD, etc.).