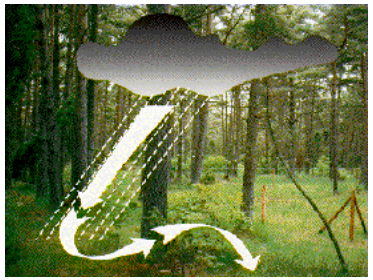

Saltsjöbaden VI workshop

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Saltsjöbaden VI workshop

- Gothenburg, Sweden, 19-21.3.2018
- International science-policy workshop
- Main theme: ”Clean Air for a Sustainable Future – Goals and Challenges”
- The workshop considered air pollution issues in relation to international conventions and other initiatives
  - Convention on Long-range Transboundary Air Pollution (CLRTAP)
  - EU legislation on Air Pollution
  - Climate and Clean Air Coalition (CCAC)
  - Arctic Monitoring and Assessment Programme (AMAP)
  - Stockholm Convention
  - Minamata Convention.

Topics

- Clean Air in Cities
- Clean Air Globally
- Clean Air for the EECCA region
- Clean Air – Ecosystem and Climate
- Clean Air – Sectors and Solutions

Topic 4: Clean Air – Ecosystem and Climate

Chairs: Isaura Rábago, Jesper Bak and Martin Forsius

Subtopics:

- Ozone effects and its links to food production and safety
- Links to forest production and forestry/climate interests
- Biodiversity effects and the link to the CBD and EU Directives
- The future of effect monitoring, including reporting under EU NEC Directive

Ozone effects and its links to food production and safety

Recommendations

- To perform ozone risk assessment for different biogeographical regions and vegetation types based on flux uptake together with AOT40 (ICP Veg, ICP Forest, EMEP)
- To explore interactions between ozone and nitrogen/climate change/ competition and ecological dynamics, and to better evaluate risks and impact due to ozone taking into account flux exposure, nitrogen and climate (ICPs, EMEP)
- To extend ozone target values and long term values to different types of vegetation (crops, forest and seminatural vegetation) in legislation

- To use ozone flux modelling for ozone risk assessment on crop production, taking into account not only crop quantity but also crop quality (ICP-Veg, TFIAM)

- To improve the modelling of the influences of soil moisture on ozone fluxes and physiology and to use the flux based approach for climate change scenarios since it considers changes in the meteorological parameters and the profiles of ozone exposure (ICP-Veg, ICP Forest, EMEP)

- To support epidemiological studies on ozone impacts on forest trees and semi-natural vegetation (ICP Veg, ICP Forest)

- To improve air pollution monitoring networks with better dry deposition data and inclusion of mountain areas not present in current networks (EMEP, Air Quality networks)

- Explore other possible response parameters more related to ecosystem services (Research)

Links to forest production and forestry climate interests

Recommendations

- Need to consider biomass production vs. nature protection efforts (e.g. deadwood needed for maintaining biodiversity). Ash recycling needed for high production in sensitive areas (countries)
- Important to harmonize air quality and climate policies to avoid negative effects of intensified forestry for biomass production on ecosystems (CLRTAP, EU, countries).
- Decreasing acid deposition has decreased soil acidification and it should be ensured that intensified forestry does not affect this trend (CLRTAP, EU, countries)
- Need to better consider management in CL calculations for N using mass-balance CL for N (National Focal Points)
- Better data needed particularly on N impacts on soil C sequestration in forested ecosystems (Research)
- Better data needed on base cation deposition and mineral weathering rates (Research).
- Data needed for other ecosystems than forests (Research)

Biodiversity effects and the link to the CBD and EU Directives

- Achievement of the goals of EU and national nature policies will in many cases only be possible with – or very costly without - substantial reductions in nitrogen load. Ecosystem effects and effect-based policies will therefore also be important in the future. (CLRTAP, EU)
- To improve the mitigation of threats to biodiversity and ecosystems there should be a strong linkage between air pollution, nature and agriculture policies (EU)
- Arrange a scientific workshop to enhance/verify methodologies for assessing impacts of N on biodiversity (e.g. habitat suitability index) (WGE, ICPs
- Continue long-term harmonized vegetation monitoring to assess ecosystem and biodiversity effects by air pollution and climate change (WGE, countries)
- Increase number of habitat types and sensitive species in N impacts assessment (WGE, ICPs, countries)
- Assess the critical level for NO_2 regarding impacts on sensitive species (e.g. lichens) (ICPs, research)
- Assess ozone critical levels for biodiversity (ICPs, research)

The future of effect monitoring, including reporting under EU NEC Directive

- Constitute a European working group for implementation of ecosystem monitoring under Article 9 (NEC Directive) in cooperation with the member states and the scientific support from the WGE. This WG should be managed by the Commission (EU)
- Harmonize efforts of the WGE and the Commission regarding impact assessment, as well as between the different directives (WGE, EU)
- Share the monitoring data reported to EEA also to ICPs and enhance ICP participation (countries)
- The WGE shall develop and present a common ecosystem monitoring platform to evaluate effects of air pollution in a coordinated manner (WGE)
- Establish cooperation with ESFRI Research Infrastructure (e.g. to enhance monitoring infrastructures and get experimental data) (WGE, ICPs, countries)