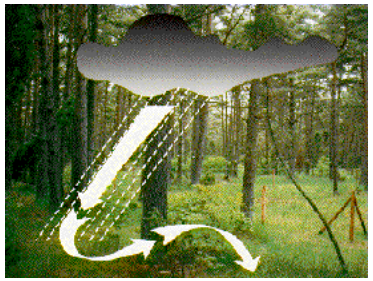


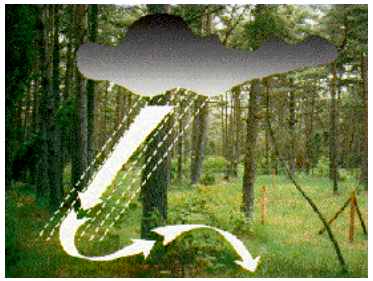
ICP Integrated Monitoring of Air Pollution Effects on Ecosystems -

ICP IM

Achievements & Priorities 2014-2016

Lars Lundin and Martin Forsius

Swedish University of Agricultural Sciences



1. ICP IM TF 2014
2. Focus of work 2014/2015
3. Key results and achievements
4. Future plans; workplan 2014-2016
5. ICP IM TF 2015

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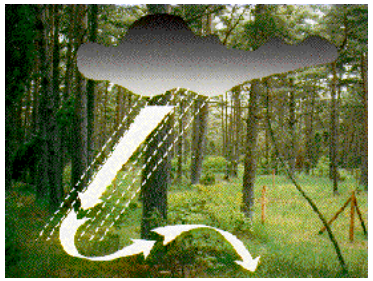

Database update – data from 2012

2014-12-01:

c. 12 countries

c. 16 countries for period 2009 – 2013

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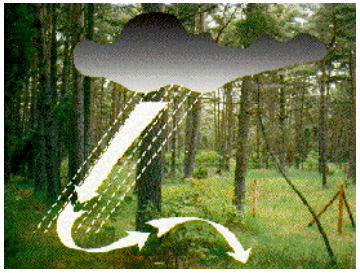
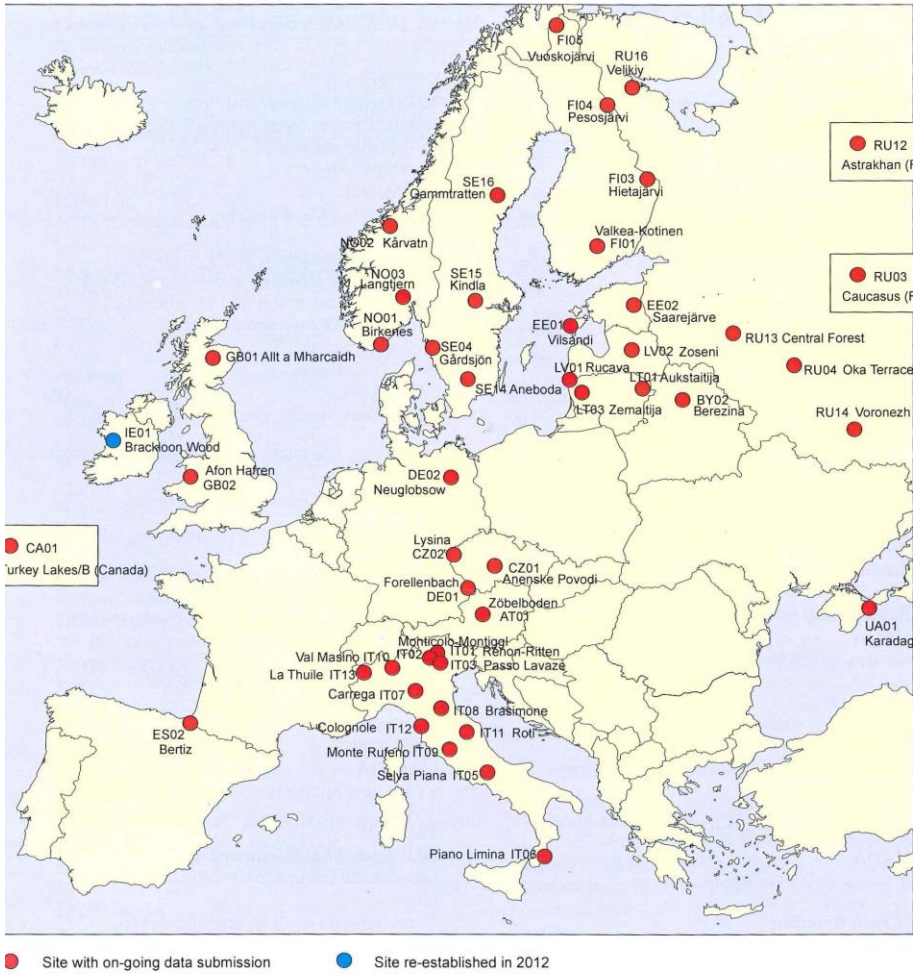
LRTAP
Long-range Transboundary Air Pollution

Integrated monitoring sites





16 countries
44 active sites
Ukraine 1
Norway 2 new
Ireland restart
Poland with intentions

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IM Task Force meeting 7-9 May 2014

Westport, Ireland
25 participants from 12 countries and
WGE Bureau vice chair Gudrun Schütze
ICP Waters and ICP M&M

Kind invitation from Mr D. Dodd from
the Environmental Protection Agency, Republic of Ireland
Organisation Thomas Cummins, University College Dublin

Workshop first day
Task Force second day
Excursion to the IM site Brackloon Wood and
the Marine Institute Furnace site and the Burrishoole catchment

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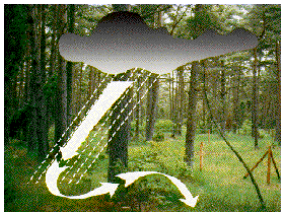


Ongoing priority work items

Biodiversity indicators and issues related to CL and modelling

Work on HM baseline, budgets and critical loads

Update results on mass balances for sulphur and nitrogen

Collaboration between IM, EU projects and LTER Europe

Common workplan items related to CLRTAP strategy (e.g. EMEP and WGE Assessment report).

Common ICP, TF Health and JEG Trends report

ICP IM Contributions

Acidification
Eutrophication
Biodiversity
Heavy metals

Report and scientific paper on mass balances and indicators for sulphur and nitrogen in catchments

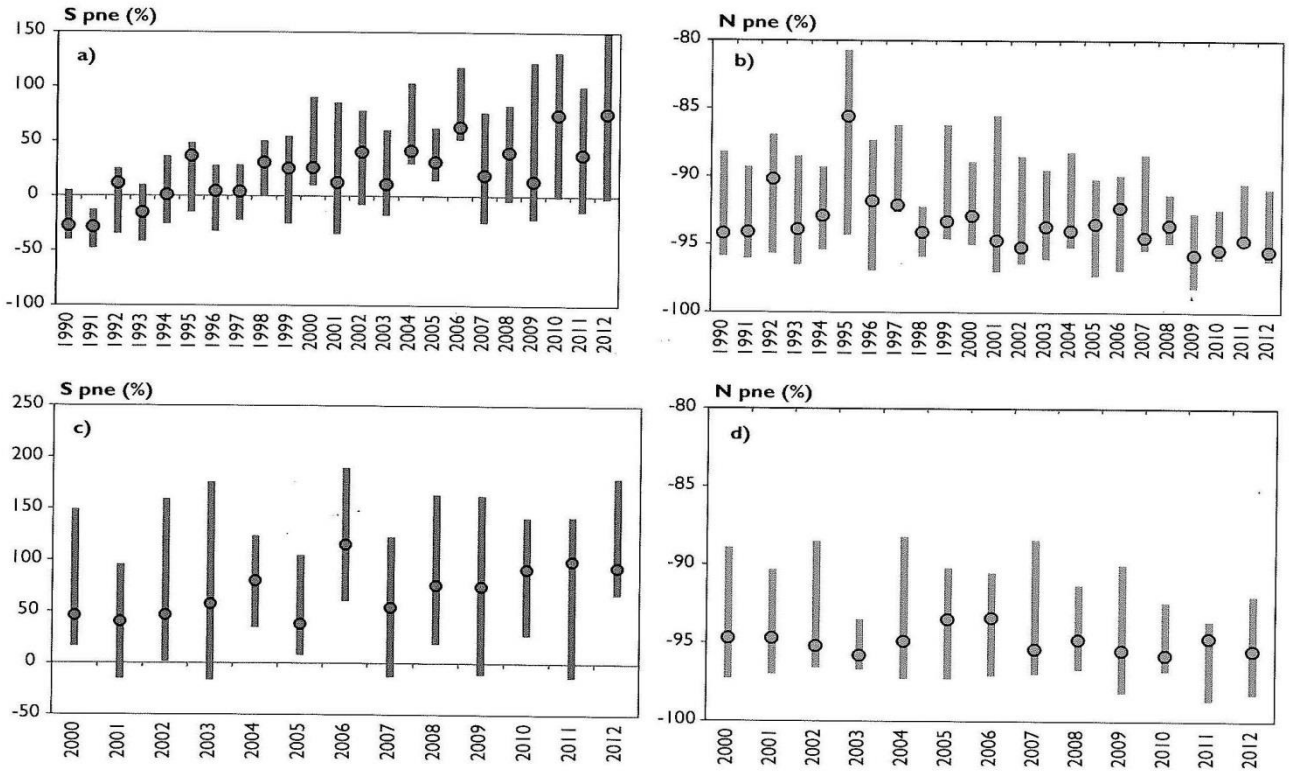
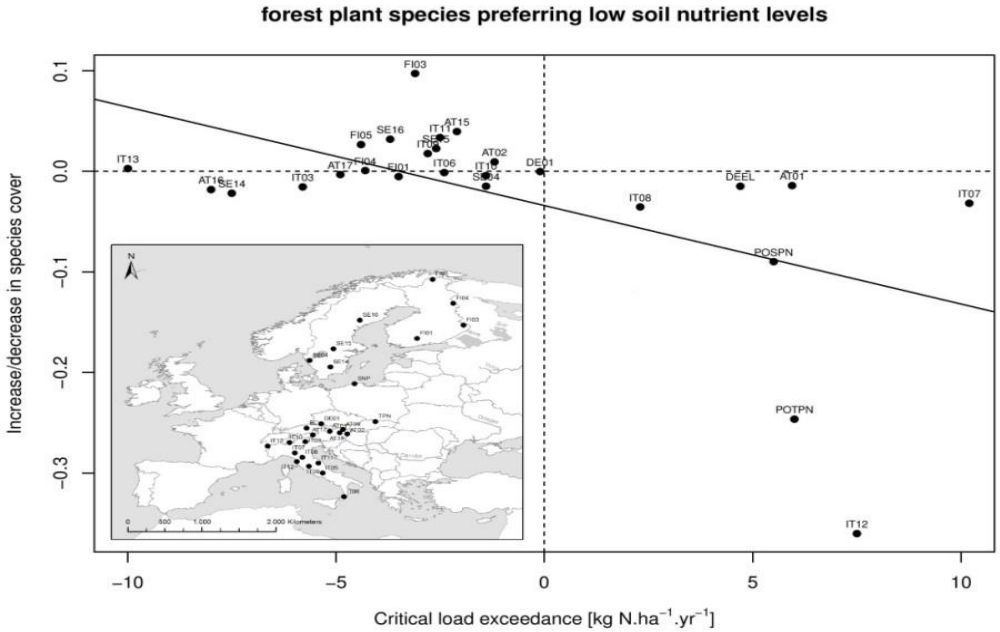


Figure 3.2 Percentiles (25%, median 50%, 75%) of percent net export (pne, %) of sulphate (SO_4) and total inorganic nitrogen (TIN) for the IM sites CZ01, CZ02, DE01, FI01, FI03, NO01, NO02, SE04 in 1990–2012 (a and b, respectively) and for the sites CZ01, CZ02, DE01, EE02, FI01, FI03, IT01, LT01, LT03, LV01, LV02, NO01, NO02, SE04, SE14, SE15, SE16 in 2000–2010 (c and d, respectively). DE01 and SE14 were omitted from the calculation of pne for TIN due to excess N mineralization after Norway spruce (*Picea abies*) dieback due to a bark beetle attack in 1996–1997 and storm logging / bark beetle attack in 2005–2009, respectively.

Biodiversity

Forest plant species that prefer low soil nutrient levels have decreased during the last 10-50 years in 28 ICP IM and ICP Forests sites across Europe owing to the exceedance of the nitrogen critical loads.



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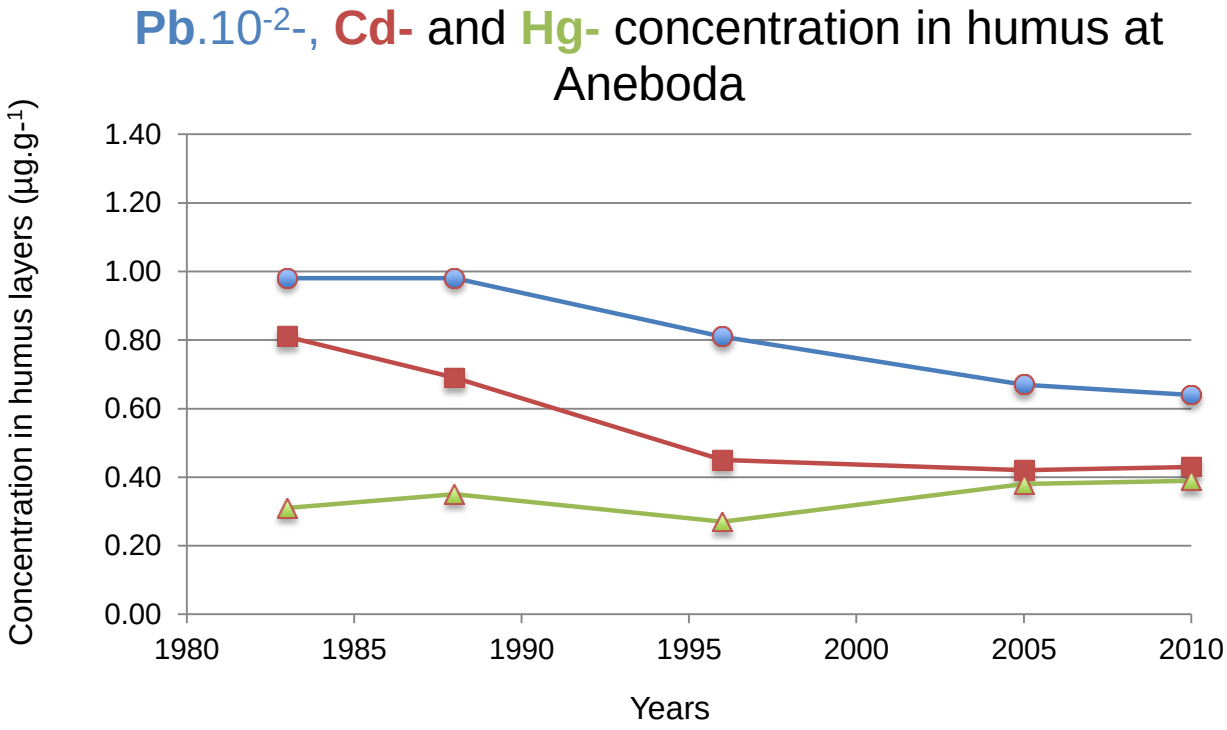
Metal content in the humus layer during 1985-2010 in the PMK-/IM-site Aneboda



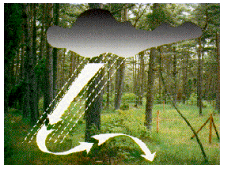
Planned ICP IM work and reports 2015-2016

ICP IM 24th Annual Report 2015

Report on dynamic modelling on vegetation changes in relation to N

Report and scientific paper on long-term trends in ecosystem effects of sulphur, nitrogen and heavy metals

In 2015 the 23rd ICP IM Task Force meeting



Progress report on dynamic vegetation modelling at ICP IM sites

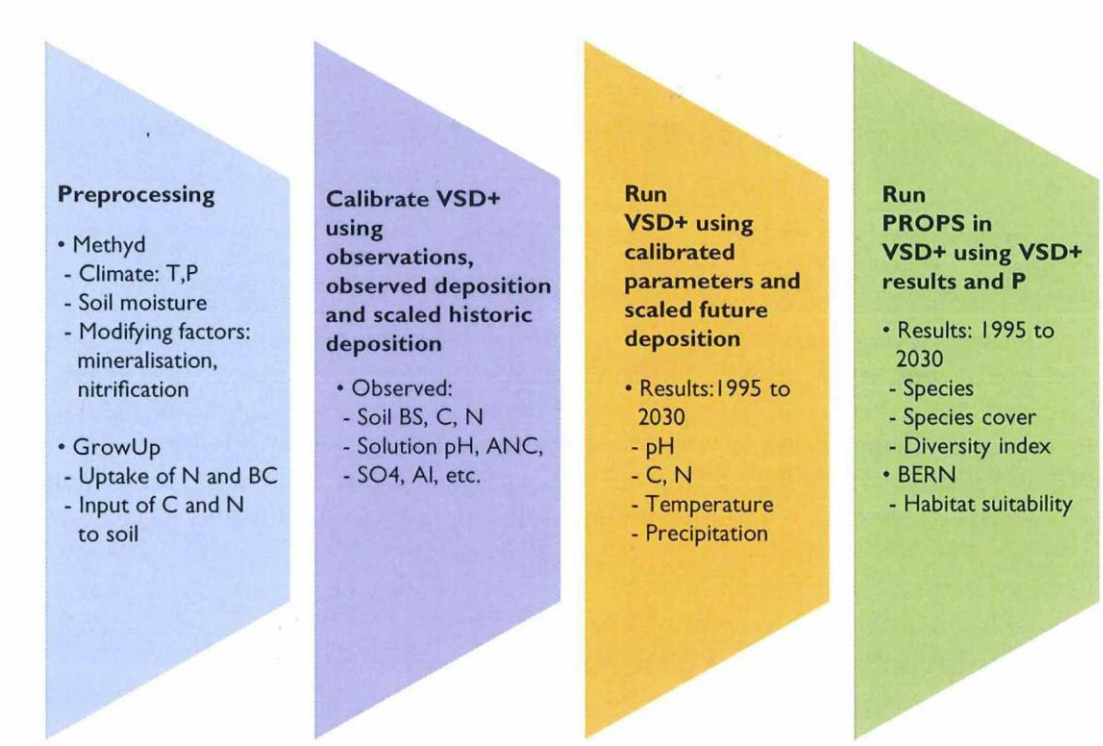
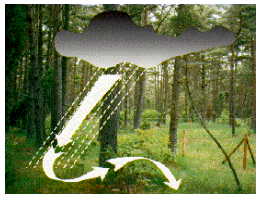


Figure 2.1. Schematic view of dynamic modelling work flow at ICP IM sites.



Increased possibilities to deliver required science in the future

Intense collaboration between ICP:s:

- Increase the monitoring regions
- Increase policy oriented assessments

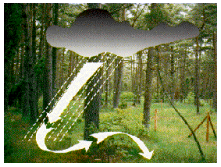
EC collaboration projects; New Horizon 2020

ICP IM relates to

ALTER-Net II
LTER Europe
LIFE Watch http://www.lifewatch.eu/
EnvEurope
EU Cost action FP0903
EU projects SoilTrEC, Expeer …

Cooperation with other ICPs

1. Trend report together with ICP Waters
2. Dynamic modelling together with ICP M & M
3. Potential cause effects report with ICP Forests
4. Trends report common for all ICPs
5. Joint Assessment report EMEP and WGE



Next ICP IM TF -2015

Welcome in May to Minsk, Belarus

Thank You for attention!

Location

Working Group on Effects of the Convention on Long-range Transboundary Air Pollution