

Review GP – contribution ICP Waters

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Chair ICP Waters

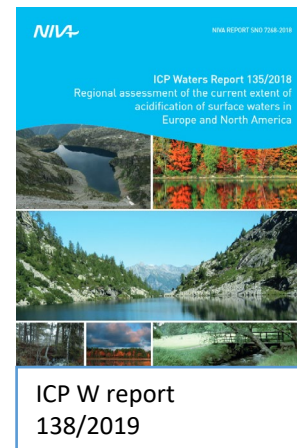
Review of Gothenburg protocol

2.2b exceedance of critical loads

- Lack of critical load exceedance is not equivalent to 'no ecosystem damage' because of delays in recovery
- Even by reaching the emission targets of acidifying compounds set for 2030, critical loads for surface waters will remain exceeded. This implies that the current emission reduction targets may not be sufficiently ambitious for protection of all surface waters from acidification.
- Despite large and effective efforts across Europe and North America to reduce surface water acidification, air pollution still constitutes a threat to freshwater ecosystems.



- Regional assessment of current extent of surface water acidification in Europe and North America
- Where critical load estimates are absent, comparison of geology with atmospheric deposition indicates that acidification may be an issue here:
- the Pyrenees,
- the border regions of Belgium, Luxembourg, France and Germany,
- the mountainous regions on the borders of the Czech Republic, Germany and Austria,
- the Tatra Mountains in Slovakia and Poland,
- the Italian Alps,
- northern Croatia, parts of Bosnia and Herzegovina and Serbia, western Albania,
- parts of western Russia, and central Armenia.



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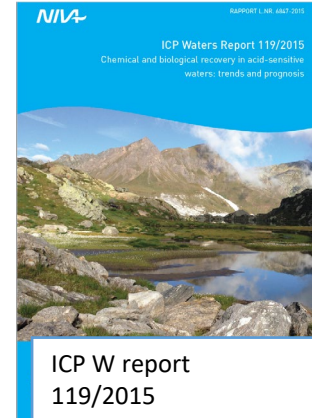
2.2b exceedance of critical loads

- Lack of critical load exceedance is not equivalent to 'no ecosystem damage' because of delays in recovery



Trends and prognosis (for 2030 (2050?))

- Requires use of models and projections of deposition (collaboration with EMEP)
- The projections aren't there yet, require some more guidance from Chairs WGE and EMEP



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2.2c 'change in water quality indicators'

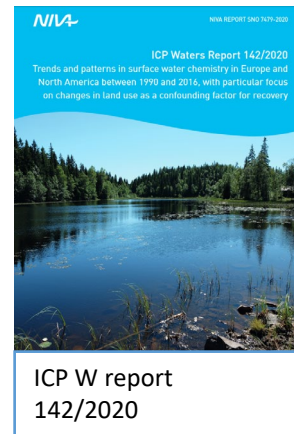


- Regular trend assessments, data until 2016

2.7 'is monitoring system sufficient'?



- Regional assessment of current extent of surface water acidification in Europe and North America
 - Lack of data in some regions. Monitoring under NEC directive might help



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2.8 impacts of new findings •

- 1. 'protection of marine ecosystems' →
- 2. interactions of climate and land cover on surface water quality and recovery
- 3. a quicker reduction of emissions to levels below CL will lead to quicker recovery

Not part of our mandate, but riverine export of nitrogen (originating from deposition) is clearly a relevant topic

- Marine ecosystems are limited by nitrogen. Coastal ecosystems are especially sensitive to nitrogen inputs from rivers