

Task Force on Reactive Nitrogen, Copenhagen, 24 April 2013

**UPDATE ON THE ACTIVITIES
UNDER THE UNECE CONVENTION ON
LONG-RANGE TRANBOUNDARY AIR
POLLUTION (LRTAP)**

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UNITED NATIONS ECONOMIC COMMISSION FOR EUROPE



OUTLINE

1. Amendments to the Gothenburg Protocol
2. Amendments to the Protocol on Heavy Metals
3. Assessment on the Water-Food-Energy-Ecosystem Nexus
under UNECE Water Convention
4. Preparations for 2014-2015 Workplan



1. Amendments to the Gothenburg Protocol

- Adopted by Parties to the 1999 Protocol to Abate Acidification, Eutrophication and Ground-Level Ozone (Gothenburg Protocol) at the 30th session of the Executive Body on 4 May 2012
 - National emission reduction targets for 2020 (compared to 2005 base year) for key air pollutants: sulphur and nitrogen oxides, ammonia and volatile organic compounds
 - Uniform set of air pollutant standards for stationary and mobile sources (Emission Limit Values)
 - Adoption – for the first time – of reduction targets for fine particulate matter PM_{2.5}
 - Inclusion of black carbon (soot) as component of PM_{2.5}
- **First legally binding agreement containing obligations to reduce the broader spectrum of short-lived climate forcers**



1. Amendments to the Gothenburg Protocol

- Introduction of **flexibilities** to encourage accession by the countries of Eastern Europe, the Caucasus and Central Asia (article 3 bis on **Flexible transitional arrangements** and the annex VII on timescales under article 3):
 - Applicable for countries acceding to the Protocol by 2019
 - Full implementation of ELVs no later than eight years after entry into force for the new Party, or 2022, whichever is sooner
 - In no case postponement of implementation of any limit values for new and existing stationary sources past 2030
 - Implementation plan identifying a timetable for full implementation of the specified provisions and triennial progress report



1. Amendments to the Gothenburg Protocol

Article 3 Basic obligations:

1. Each Party shall... reduce and maintain the reduction in its annual emissions in accordance with the emission reduction commitment and the timescales specifiedcontrol annual emissions of polluting compounds.



8. Each Party shall:

(a) Apply, as a minimum, the **ammonia control measures** specified in annex IX; and

(b) Apply, where it considers it appropriate, **best available techniques for preventing and reducing ammonia emissions**, as listed in guidance adopted by the Executive Body. Special attention should be given to **reductions of ammonia emissions from significant sources of ammonia** for that Party.



1. Amendments to the Gothenburg Protocol

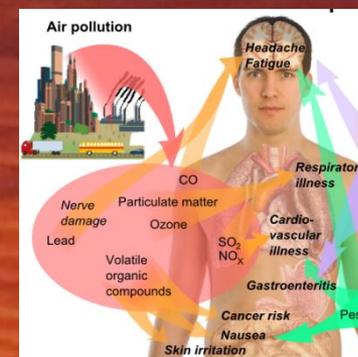
Article 5 Public Awareness

Each Party shall, promote the **provision of information to the general public**, incl. on:

- (a) **National annual emissions of sulphur, nitrogen oxides, ammonia**, volatile organic compounds and particulate matter,
- (b) **Depositions and concentrations of the relevant pollutants.**

Each Party may make information widely available to the public with a view to minimizing emissions, including **information on:**

- **Good agricultural practices to reduce emissions of ammonia**
- **Human health, environmental and climate effects associated with reduction of the pollutants covered**



1. Amendments to the Gothenburg Protocol ...towards a Green Economy

*Article 6 Strategies, policies, programmes,
measures & information*

1. Each Party shall

(b) Apply measures to **control and reduce its emissions of sulphur, nitrogen oxides, ammonia, VOCs and PM**

(c) Apply measures to encourage the **increase of energy efficiency and the use of renewable energy;**

(d) Apply measures to **decrease the use of polluting fuels;**

(f) Apply measures to encourage the development and introduction of **low-polluting processes and products,**

(g) Encourage the implementation of **management programmes** to reduce emissions, including **voluntary programmes,** and the use of **economic instruments...**



1. Amendments to the Gothenburg Protocol

Article 7 Reporting

3. Upon the request of and in accordance with the timescales decided by the Executive Body, EMEP and other subsidiary bodies shall provide the Executive Body with relevant information on:

- (a) Ambient concentrations and depositions of ...nitrogen compounds**
- (b) Calculations of sulphur and oxidized and reduced nitrogen budgets**
- ...
- (d) The calculation of nitrogen budgets, nitrogen use efficiency and nitrogen surpluses and their improvements within the geographical area of EMEP, using guidance adopted by the EB.**



1. Amendments to the Gothenburg Protocol

Annex IX Measures for the control of emissions of ammonia from agricultural sources

2. Each Party shall take due account of the need to reduce losses from the whole nitrogen cycle.

A. Advisory code of good agricultural practice

Within one year from the date of entry into force of the present Protocol for it, a Party shall establish, publish and disseminate an advisory code of good agricultural practice to control ammonia emissions.



1. Amended Gothenburg Protocol: Entry into force

- The amended Gothenburg Protocol will enter into force when 2/3 of its 26 Parties accept the amendments.
- The EU, Belarus, Croatia, Norway and Switzerland already announced their reduction commitments.
- The US provisionally indicated a similar level of ambition with respect to abatement commitments to that of the EU.
- The Russian Federation and other countries of Eastern Europe, the Caucasus and Central Asia indicated their intention to ratify the revised GP in the near future.



1. **Guidance documents to the amended Gothenburg Protocol**

- At its 31st session, the Executive Body adopted:
 - **Guidance document on control techniques for emissions of sulphur, nitrogen oxides, volatile organic compounds and particulate matter (including PM10, PM2.5 and black carbon) from stationary sources**
 - **Guidance document on economic instruments to reduce emissions of regional air pollutants**
 - **Guidance document on national nitrogen budgets**
 - **Guidance document on preventing and abating ammonia emissions from agricultural sources**



1. Amendments to the Gothenburg Protocol: Adjustment Procedure

- Decision on adjustments under the Gothenburg Protocol to emission reduction commitments or to inventories for the purposes of comparing national total emissions with them (Decision 2012/3 at EB-30)
- Application in extraordinary circumstances:
 - New emission source categories
 - Different emission factors
 - Significant change of methodology
- Possibility to apply the adjustment procedure pending entry into force of the amendment (Decision 2012/4 at EB-30)
- Guidance for adjustments (Decision 2012/12 at EB-31)



2. Amendments to the Protocol on Heavy Metals

- Adopted by Parties to the 1998 Protocol on Heavy Metals at the 31st session of the Executive Body on 13 December 2012
- More stringent emission limit values for emissions of cadmium, lead and mercury
- Mandatory ELVs and timescales for their application
- Extension of the emission source categories for the three heavy metals to the production of silico- and ferromanganese alloys
- Building on approach of Gothenburg Protocol, inclusion of considerable flexibilities to enable accession of countries in Eastern Europe, the Caucasus and Central Asia



2. Amendments to the 1998 Protocol on Heavy Metals

- Adoption of expanded Guidance document on “Best available techniques for controlling emissions of heavy metals and their compounds from the source categories listed in annex II”
- Agreement to revisit issues of mercury-containing products and emission limit values for heavy metals at EB session 2014, following adoption of a UNEP global legally binding agreement on mercury



3. UNECE Water Convention: Its main obligations and assessments

Main obligations of the Convention on the Protection and Use of Transboundary Watercourses and International Lakes:

- **Protection of transboundary waters** by preventing, controlling and reducing transboundary impacts...*i.e. significant adverse effect on human health and safety, flora, fauna, soil, air, water, climate, landscape, and socio-economic conditions resulting from change in the conditions of transboundary waters caused by human activity*
- **Reasonable and equitable use** of transboundary waters
- **Obligation to cooperate through agreements and joint institutions**
- Carry out joint or coordinated assessments of the conditions of transboundary waters and the effectiveness of measures taken for the prevention, control and reduction of transboundary impact
- Second Assessment of Transboundary Rivers, Lakes and Groundwaters, August 2011



3. New Assessment on the Water-Food-Energy-Ecosystem Nexus under the UNECE Water Convention

- **Water, energy and food sectors strongly interlinked:**
 - Agriculture largest consumptive water user, predicted production increase
 - Increasing use of renewable energy (biofuels, hydropower)
 - Food production constrained by limited sustainable land and water use
 - Sustainable development perspectives depend on functioning ecosystems and their services
- Finding a balance between various uses and protection of the water resource: address and reduce trade offs and increase synergies
- Policy integration and coherence remains weak across the region; difficult to put into practice, painful trade offs



3. Assessment on the Water-Food-Energy-Ecosystem Nexus under UNECE Water Convention

Objectives:

- Characterize the influence of individual sector-policies on other sectors
- Identify barriers and opportunities to cooperation which generates additional benefits from stronger integration of policies and planning across sectors, promote equitable sharing of benefits
- Demonstrate the benefits of cooperation through optimization of interdependent energy, food and ecosystem goods and services' policies leading to increased gain in food, water and energy security
- Produce useful information for regional, national and basin level policymakers and stakeholders to support decision-making, transboundary cooperation, public participation, policy coherence



3. Assessment on the Water-Food-Energy-Ecosystem Nexus under UNECE Water Convention

Methodology

- Mostly **qualitative** description as well as identification of linkages and major issues in the nexus in the basins, incl.:
 - Water quality and impacts of point and diffuse pollution sources
 - Excessive use of pesticides and fertilizers/nutrients
- Pending availability of additional funding, "light" quantification of selected issues/aspects of the nexus in individual basins in the second stage of the project
- Consultative workshop to be held in each participating basin which will bring together the representatives of the different sectors and interest groups/stakeholders from the riparian countries
- Limited data gathering in preparation for the workshop (existing databases, questionnaires)



3. Assessment on the Water-Energy-Food-Ecosystem Nexus under UNECE Water Convention

Basins

- A representative set of basins
- With the opening of the Convention, including basins outside of UNECE region valuable for exchange of experience
- Basins to reflect, ideally, different transboundary relationships and level of socio-economic development
- A diversity of issues, different angles to the nexus
- Climatic zones i.e. different level of water availability
- Varying relative resource scarcity and productivity
- Adequate level of data availability — a common minimum level to be established, but room to be left for more ambition



3. Assessment on the Water-Food-Energy-Ecosystem Nexus under UNECE Water Convention

Timing

- Basins & participation of countries/commissions to be confirmed by June 2013
- Methodology to be refined & list of data requirements to be specified by Sept 2013 for the pilot, end of Jan 2014 for all basins
- Testing the methodology on a pilot basin (to be selected), including data collection, analyses and assessment, conclusions of the testing and finalization of the methodology (Oct-Dec 2013)
- 2nd meeting of the Nexus Task Force in mid-2014
- Jan 2014- Apr 2015: basin level process (inter-sectoral basin level meetings with concerned sectors & main water users) & assessments
- May 2015 content of the Assessment to be endorsed by TF Nexus
- Publication in August 2015 for 3rd Meeting of the Parties of UNECE Water Convention



3. Assessment on the Water-Food- Energy-Ecosystem Nexus under UNECE Water Convention

Opportunities for cooperation with TFRN

- Nitrogen-related indicators for water quality e.g. nitrogen use efficiency, in selected basins
- Provision of data at the level of the basin, in cooperation with national authorities of riparian countries
- Cooperation with EPN-EECCA
- Testing National Nitrogen Budgets in (a) selected basin(s)?
- Co-funding opportunities (GEF-project?)
- Inclusion of plans for cooperation in 2014-2015 workplan

→ For your further discussion at this TFRN meeting



4. Preparations of the 2014-2015 Workplan

- **Upcoming review of the recommendations by the ad hoc group of experts on the Action Plan for the implementation of long-term strategy & 2014-15 Workplan:**
 - Consideration at upcoming 51st session of the Working Group on Strategies and Review, 30 April – 3 May
 - Decisions by EB at 32nd session, 9-13 December 2013
- **Development of the 2014-2015 workplan**
 - Alignment with long-term strategy, targeting Convention's priorities & needs
 - Input by different Task Force in new format, identifying link of planned activities/outputs with long-term strategy
 - Decision on workplan to be taken by EB



4. Preparations of the 2014-2015 Workplan

Policy - Specific priority policy areas

Nitrogen

Proposed “Description/objectives: To develop an integrated approach towards controlling nitrogen pollution in the framework of the Convention, and to improve coordination between the work of various Convention bodies on nitrogen compounds . To build capacity to implement the Guidance documents developed in the framework of the Convention to implement the amended Gothenburg Protocol, namely the Guidance documents on national nitrogen budgets (ECE/EB.AIR/119) and on preventing and abating ammonia emissions from agricultural sources (ECE/EB.AIR/120). To address cross-sectoral considerations, notably the linkages between nitrogen and human diet, water ecosystems, and biodiversity. To establish and maintain cooperation with regional and global organizations, addressing pertinent cross-sectoral issues such as biodiversity, ecosystems, agriculture and food and climate change.”



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Policy - Specific priority policy areas

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4. Preparations of the 2014-2015 Workplan

Policy - Specific priority policy areas

Nitrogen

Proposed “Intended outcome of activities in relation with the long-term strategy: Improved understanding of approaches controlling nitrogen pollution in the environment, awareness and application of these by Parties. Improved awareness and understanding of the Guidance documents on national nitrogen budgets (ECE/EB.AIR/119) and on preventing and abating ammonia emissions from agricultural sources (ECE/EB.AIR/120). This should facilitate preparation for and implementation by Parties of the amended Gothenburg Protocol (article 7 para 3, article 3, paragraph 8 (b) and para 6 of annex IX; para 17 (a) of the Long-term Strategy).”



4. Preparations of the 2014-2015 Workplan

Policy - Specific priority policy areas

Nitrogen

Proposed “Intended outcome of activities in relation with the long-term strategy:



....Furthermore, the work on reactive nitrogen should lead to improving the understanding of the nitrogen effects on biodiversity in line with the strategic objective of *“addressing the synergies and trade-offs between policies to address air pollution, climate change and biodiversity”* (para 17 (b) LTS). It should also be conducive *“to formulate ways of working with the [Convention on Biological Diversity] (...), as appropriate”* (para 14 (c) LTS) and with other regional and global organizations and processes to dissemination information from the ECE region and promote knowledge and experience sharing.”



4. Preparations of the 2014-2015 Workplan

Main activities and time schedule:

Activity description	Deliverable(s) and planned completion date	Reference to LTS, Action Plan to LTS, EB decision	Funding source	Resources in thousands of US\$	Add. resource needs	Main responsible body
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For further information

<http://www.unece.org/env/lrtap/welcome.html>

- Specific section of website:
 - ✓ *“Amended Protocols”*
 - ✓ *“Guidance documents and other methodological materials”*
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