WGE contribution to GP revision negotiations

(including elements for a possible future)

Jean-Paul Hettelingh (ICP-M&M/CCE)
on request of
Peringe Grennfelt (chair WGE).
“1999” structure of Environmental Impact Assessment for the RAINS/GAINS-model
GAP closure concept ‘1999’ (in any gridcell)

Deposition/concentration

Actual exposure @ $R_i$

Gap to be closed

Critical threshold @ $R_i$

$R_i$

receptors

...WGE indicators are included in scenario optimization...
Structure of “Ex-post” assessment for GP revision
(in the “GAINS-system” as now termed under ECLAIRE)

TFIAM

EMEP/CIAM-GAINS

Emissions → Depositions & Critical loads & Critical levels → - Exceedance
- ecoarea at risk
- AOT40
- Health indic.

WGSR

WGE

O3 flux

Target loads
Asp. Targets
D/R relations
Empirical

WGE indicators
GAP closure concept for GP2012 (in any gridcell)

…WGE indicators are not used for gap closure, but for scenario *evaluation*…
WGE indicators in the **GAINS-Model** are used for scenario evaluation:

Costs for improving individual effects CIAM 1/2011 vs CIAM 4/2011

Source: Amann for WGSR49, 2011
Interim remarks (1)

• WGE indicator information helped set the frame of reference for - and span of control of - policy negotiators with respect to emission reduction requirements

• When this information came from the GAINS-model (TFIAM and IIASA reports) – packed as it was with other information on costs etc – it was ‘daily business’ to policy negotiators. However, this may have less been the case for the information from expost assessments (mostly WGE-only reports
The WGE listened to the EB and carefully followed suit:

• EB call to WGE 2007 (Art. 32n in ECE/EB.AIR.91e): “to consider further quantification of policy relevant indicators such as biodiversity change, and link them to integrated modelling work”

• Follow up by writing “Guidelines for reporting on the monitoring and modelling of air pollution effects” adopted by the EB (ECE/EB.AIR/2008/1)

• This facilitated the writing of the “Impacts of Air Pollution on ecosystems, human health and materials under different Gothenburg protocol scenarios” presented to EB30 (informal document # 14)

• Follow up with the “Guidance document on health and environmental improvements” (Informal document #4 to WGSR50)

Fact is that “…linking them to integrated modelling work…” cannot be done by the WGE alone!
Summary of WGE information provided to policy negotiators

• IMPACT report: New indicators showed, in addition to TFIAM/CIAM reporting, that:
  – Ozone (flux approach !) remains an issue of great importance across UNECE area with the proposed emission reduction
  – Impacts to materials need to be evaluated at a fine (urban) scale
  – Acidification decrease is a success story of the Convention but will also remain in some areas (dynamic modelling)

• Annex 1 of the 2012 Gothenburg Protocol and guidance document on health and environmental improvements (informal doc. 4 in WGSR50)
  – Provide agreed (!) indicators to assess the temporal evolution of atmospheric pollution impacts for each party using several WGE-indicators in addition to GAINS model effect results

• Information in “non technical” documents and brochures on Nitrogen effects, ozone impacts and atmospheric pollution impacts have been published

• Technical documents provided – but not translated 😞 - to the Convention.
Interim remarks (2)

• Was additional WGE information successfully understood by TFIAM and (also via TFIAM and CIAM) by the WGSR and EB?

• Does WGE help WGSR and national representatives to realize sufficiently well that:
  – Knowledge of effects can complete the justification of policy measures to industry and the public,
  – WGE indicators substantiate the effectiveness of the Protocols,
  – WGE indicators strengthen robustness of policy directions,
Conclusions and final ‘propositions’

• WGE information to the GP revision process has met adopted workplan requirements,
• WGE information was used to help set the span of control by protocol revision negotiators,
• WGE information was scattered over TFIAM-CIAM reports (and interpreted as GAINS results) and WGE as well as WGE-ICP reports,
• WGE information – both from GAINS-model and “expost” (GAINS-system) assessments – could also benefit from a more complete balance in TFIAM/CIAM reports.