Capacity Building for Air Quality Management and the Application of Clean Coal Combustion Technologies in Central Asia (CAPACT)

Final Meeting
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Relevant CLRTAP Protocols

Lars Nordberg
Adviser
la.nordberg @ tele2.se
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Status June 2007
EMEP

International mandatory cost-sharing for monitoring, modelling and evaluation (three centres)

Backbone for information on:

-- emissions
-- atmospheric transport
-- chemical transformation, deposition and concentrations
EMEP

Input to:
-- modelling of transboundary fluxes
-- integrated assessments
-- compliance monitoring
-- effect studies
-- negotiation of commitments
EMEP

Requirements in monitoring strategy

-- collaboration on instrumentation and techniques

-- measurements (level 1) of parameters for acidification, eutrophication, ground-level ozone, heavy metals (Cd and Pb)
EMEP

Requirements in monitoring strategy
-- measurements (level 2) of NH3, light hydro-carbons, Hg, POP, mineral dust
-- network of measurement sites
-- relaxation of mandatory requirements is possible
POPs

Health concern - 16 pollutants
- pesticides, industrial chemicals, by-products
- elimination: 12 by 2003
- restriction on use: 3 by 2003
  (DDT in both groups)
- special provisions: PAH, dioxin/furans
POPs

Limit values for dioxins/furans

-- new stationary sources - by 2003

-- existing stationary sources – by 2011

-- exemptions exist
POPs

Suggestions for preparatory work
-- emission sources and releases
-- emission factors
-- actual emissions
-- technical/economic implications
-- benefit assessment
-- reporting
HEAVY METALS

Health concern
-- cadmium, lead, mercury
-- reduction of annual emissions by 2003
-- limit values and BAT for stationary sources (new ones by 2005, existing ones by 2011)
HEAVY METALS

-- product control for lead and mercury (transition countries by 2013)

-- cost-effectiveness
HEAVY METALS

Suggestions for preparatory work
-- emission sources and releases
-- emission factors
-- technical/economic implications
-- benefit assessment
-- reporting
MULTI-POLLUTANTS

Environment and Health Concerns
-- effects basis
-- SO2, NOx, NH3, VOC and PM (indirectly)
-- national emission ceilings
-- reduction schemes
MULTI-POLLUTANTS

-- optimized cost-effectiveness for the whole region
-- differentiated obligations 1990-2010
-- emission reporting
-- Pollutant Emissions Management Area (PEMA)
-- accession requirements
-- preparatory work with EMEP, IIASA, CIAM
How much attention do we need to give to Acid Rain in the next 25 years?

- In Europe, the problem—at least for policy measures—now ranks lower than many other air pollution problems.
- In terms of transboundary issues, particles, eutrophication and ozone are now more important.
- A job well done?!
- In Europe perhaps but other regions of the world—in Asia for example—it is recognised as a problem.
- One component of the future work of UNECE/CLRTAP is fostering regional co-operation world-wide.

Defra
Shipping and Aviation

- Still much to be done here – but will IMO and ICAO move fast enough?
- Action at national level can only have limited effectiveness for these sectors so a different approach is needed – how well can the EU influence these international organisations?
- What role can CLRTAP play here?

Defra
We need to build on the strengths of CLRTAP

- CLRTAP has several attributes that would be virtually impossible to put in place if we were to start now.

- It is therefore essential that we recognise this and not throw away this advantage that we start from.
What are CLRTAP’s strengths?

- the only significant instrument to deal successfully with multiple pollutants and multiple effects simultaneously
- a strong ‘in-house’ scientific capability, closely related to policy
- the only international agreement dealing with oxidised and reduced nitrogen
- wide geographic coverage including major players in the northern hemisphere (EU, Russia, US, Canada, EECCA)
- handle pollution problems on all spatial scales
- a world-wide reputation as an example of excellence in international atmospheric pollution instruments

Defra
Synergies with Climate Change and Energy Policies

- These provide a great opportunity for significant further reductions in air pollution—even in the developed world.
- Energy futures will be shaped by climate change concerns – in the absence of any geopolitical or economic shocks.
- But the related impacts on air pollution issues will need to be recognised, quantified and managed from a position of knowledge-scientific, technological, economic and social in a way that has not been achieved before.

Defra
The Future – some drivers

- ‘Pure’ air pollution policies will be increasingly difficult to justify.
- Air pollution policies will need to be increasingly co-ordinated with those addressing climate change and sustainable development, and shaped by energy futures.
- The priorities for CLRTAP have changed and the Convention needs to reflect this – acid rain in Europe is essentially solved – some changes have been made but more may need to be done: can we redirect the resources? In the scientific work?
- The global dimension will be increasingly important for science and policy.

Defra
The Future

- Revision of the Gothenburg Protocol-how will this proceed?

- One component similar to the revised NECD could be an ‘incremental’ revision, setting ceilings for, say, 2020, with reductions of the order of ~0-10% or thereabouts beyond Gothenburg I, and maintaining the geographical coverage of CLRTAP.

- A further imaginative step however could be to set aspirational ceilings for air pollutants for ~2050 related to a ~60% reduction in GHGs-if reductions in carbon of that order are aspired to, then there could be major reductions in air pollutants.

- Should CLRTAP play a stronger role in stimulating Global Nitrogen Management?
The Future

- Outreach – this is proceeding already and is gaining momentum
- Transfer of experience in CLRTAP to other regions is successful and is building on the work of the Global Atmospheric Forum
- To continue the momentum this co-operative work, informed by further scientific work and the findings of the TFHTAP, will need to generate policy interest in the longer term
- Opening the Convention is one promising route
- But momentum is also developing on the wider aspects of International Environmental Governance – what role will CLRTAP play in this?

Defra
Step by Step Process

- 1. Framework agreement
- 2. Substantive Protocols
- 3. Science basis
- 4. Reliable monitoring
- 5. Implementation (technical options)
- 6. Institutionalised cooperation
- 7. Increasing ambition levels
- 8. Review