How to communicate complex problems

There is no accurate representation of reality, simpler than reality itself. In communicating the complex reality we have to leave out things. Approximating reality can be done from different perspectives. Scientists have a responsible role in the way they frame problems and communicate consequences for policy makers and the wider public. It is not necessary that decision takers know all the details: we do not want to know all the technological details when we buy a car and we don't want to know what models are used in making the weather forecast. We only want to know whether we should take an umbrella. We even respect the fact that sometimes scientists are uncertain: 'sunny spells and scattered showers' means that people should decide for themselves whether they are risk aversive or not. But when political stakes are high and scientific uncertainties are large more intensive communication is needed than the daily weather forecast. It is than better to involve policy makers in the framing of the problem, to develop a common language, to create a platform for sharing knowledge around a 'nucleus' or 'common memory', to organize the creation, storage and transformation of knowledge as a joint learning process.

Based on a broad common goal (reduce air pollution), continuity and mutual trust a gradual process of increased complexity can emerge, as was the experience in the work under the Convention of Long Range Transboundary Air Pollution and EMEP. The boundary between science and policy was in this process rather vague: the policy makers involved showed interest in the scientific details and uncertainties, the scientists were open to discuss the use of there knowledge in a policy context and translate scientific uncertainties into political risks. In order to avoid the risk of 'group think' (common blind spots) such a network should be constantly open to new participants and to external peer review. Moreover the network should respect dissident views (even within the 'group') and open to comparison of results. In the LRTAP-experience this lead to a constant revision of the framework: from a partial solution for SO_2 via an integrated multi-pollutant multi-effect approach, towards an increased coherence with climate & energy policy, biodiversity policy, agricultural policy and trade & transport policy.

Thus far the work of the LRTAP/EMEP-network was a bottom-up process, based on collaboration rather than competition. Financial means were to be generated by the participants. The process guided itself. Currently the network is encountering a new phenomenon: in order to guarantee long term funding the European Commission is preparing a more targeted work plan for the next 5 years or so. The challenge is to reconcile this demand driven approach with the more chaotic bottom-up approach of LRTAP/EMEP. The latter being probably more creative and more focussed on scientific consensus, coherence and robustness.

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