Bringing assessments from committees to research communities
The HENVINET perspective

Sixth Framework Programme

Alena Bartonova[1], Hans Keune[4], Aleksandra Fucic[2], Arno C. Gutleb[3], Peter van den Hazel[5], Janna Koppe[6] and the HENVINET consortium (www.henvinet.eu)

[1]NILU – Norwegian Institute for Air Research, Norway [2]Institute for Medical Research and Occupational Health, Croatia [3]Centre de Recherche Public - Gabriel Lippmann, Luxembourg [4]Hulpverlening Gelderland Midden Public Health Services, The Netherlands [5]Research Institute for Nature and Forest (INBO), Belgium [6]Ecobaby Foundation, The Netherlands

Background Assessments of health risks for policy purposes are often done in expert committees. While such assessments are highly credible to policy makers, they do not allow participation of wider research community. Such participation may bring plurality of views and ideas and thus significantly improve the assessment.

Aims The aim was to develop methods for credible involvement of the environmental health research community in environmental health impact assessment. Specific aim was to develop a web-based assessment tool to evaluate (gaps in) knowledge.

Methods We developed an online expert evaluation tool based on Drivers-Pressures-State-Impact-Response (DPSIR) operational framework, with the following steps:

1) Review available literature following the DPSIR
2) Develop an internet-based questionnaire
3) Recruit external experts with publication record the last 10 years
4) Evaluate the available knowledge online (experiences: box 1)
5) Assess the evaluation results
6) Prioritize knowledge gaps and possible mitigation actions (Box II)
7) Develop a policy brief with recommendations.

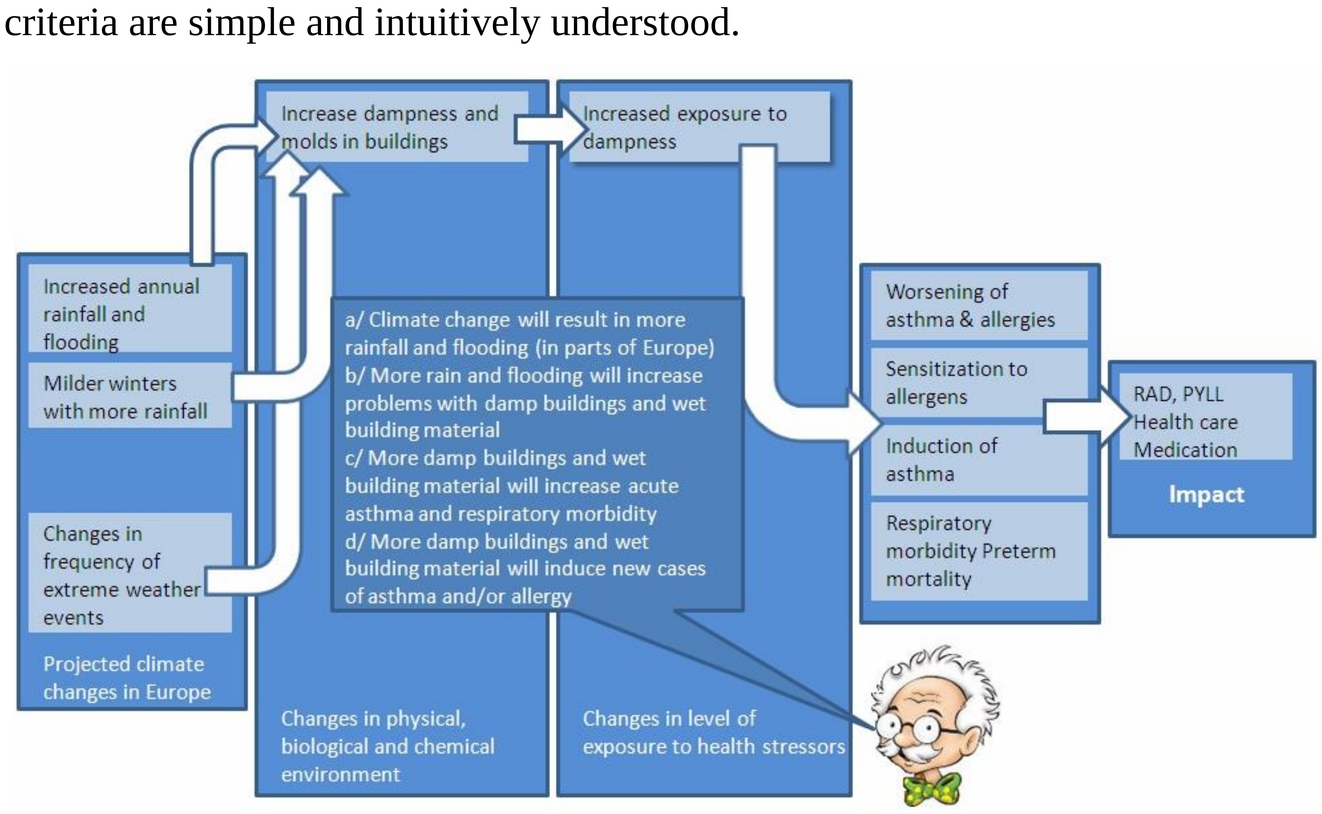
BOX 1: "Simplify as much as possible, but not further".

Members of the HENVINET team acknowledged that simplification is an important issue, and pointed out that pragmatic choices also have to be made in order to keep the project manageable. After a year-long discussion, the project chose to use the IPCC 5-point scale from "very high confidence" to "very low confidence (*Climate change 2007: Synthesis report. IPCC, Fourth Assessment Report.*)

Expert I: "We started off with about ten different criteria for knowledge evaluation, each with its own scale. For example, the amount of empirical data would have been one of those criteria. So you say, well, the method that was used was very good, except that it has only been used once or twice, so we need more. But the problem is that it just completely overwhelmed both the experts and us (…) it was unmanageable."

Expert II: "We counted it once and I think we come up with 290 parameters that you would have to judge for each of the questions."

Results Seven dissimilar environmental health issues were evaluated (climate change and respiratory disease, two brominated flame retardants, phthalates, a pesticide for home use, environmental cancer risks, and environmental occurrence of nanoparticles), five ended in a policy brief, and all provided information on knowledge gaps. The DPSIR was useful for systematization and communication. An assessment of "how certain science is" is subjective but possible to carry out if criteria are simple and intuitively understood.



Climate change related dampness and respiratory disease.

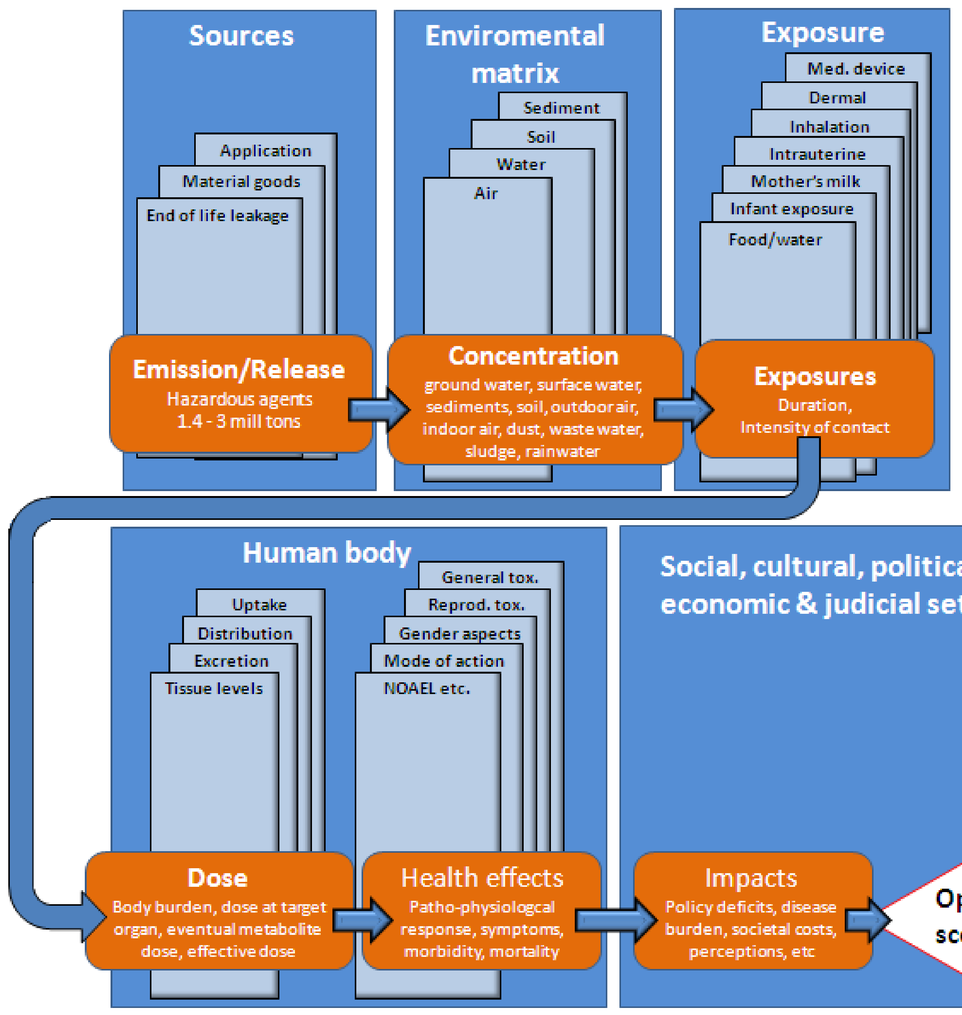
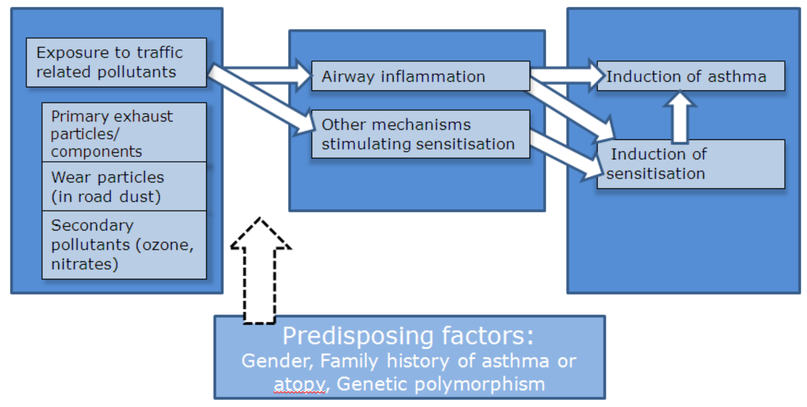


Diagram for phthalates (above) and for traffic related effects (below).



BOX 2: How to assess policy action

1) Prioritize the elements of the causal diagram by their influence on health risk
2) Identify type of action that is justified (ranging from fundamental research to concrete scientific action, from monitoring and awareness raising to restrictive actions/bans)
3) Assess the level of confidence that conducting more scientific research would yield decisive knowledge in short- or medium term horizon
4) Assess the level of confidence in the possibility that policy actions to effectively manage this health risk will become technically (not politically) feasible within the next five years.
5) Does the current scientific knowledge of the overall problem represent sufficient evidence to justify the action?

Conclusions Integrated assessment and risk assessment are two generally accepted methods to evaluate environmental health risks for policy purposes. A framework developed in the scoping phase of assessment facilitates communication with the decision makers. Transparency of the whole process, choice of framework, scoping, choice of experts and openness about gaps in knowledge are essential ingredients. Communication across disciplines and between stakeholders is essential. Uncertainties need to be brought up and discussed. Our methodology allows performing assessments in a transparent way, but perhaps the main value lies in training the scientific community to recognize issues outside science that need to be addressed. Overall, the external experts participating in all the steps of the process valued the experience positively (63%) or neutrally (31%).

References: The results are described in detail in http://www.ehjournal.net/supplements/11/S1

HENVINET – coordination action funded under the EU 6th Framework Programme, activity SUSTDEV-2005-3.VII.2.1 (2006-2010), contract no. 037019*. For more info, contact alena.bartonova@nilu.no*

The diagrams were created on the basis of the Climate Change work group led by Bertil Forsberg, Univ. Umeå , and the Phthalate work group co-led by Arno Gutleb and Erik Ropstad, Norwegian Veterinary Institute/Norwegian School of