

DISCUSSION ON NRP'S ASSESSMENT REPORT ON RISK ANALYSIS

Chair: W. Biesiot

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The chairman starts with providing an overview of the backgrounds and the major objectives of the "Risk Analysis" subtheme of the Dutch NRP as described in the programming memorandum *Integration* of the Dutch NRP. He explains that in the current meeting project leaders will get a 10-15 minute opportunity to describe main results. These project presentations will be followed by a discussion which should focus on the question whether the research projects have contributed to the realization of the goal of the risk analysis subtheme:

... a systematic and integrated analysis of the risks of climate change at (inter)national levels is necessary for the evaluation and support of environmental quality standards and the assessment of policy options.

The three research projects carried out under the risk analysis subtheme are (1) the risks of non-linear climate changes, (2) socio-economic aspects of extreme events, and (3) characterizing the risks: a comparative analysis of the risks of global warming and of relevant policy strategies. For information concerning the content of the projects, see the separate project papers and the *Assessment report concerning NRP funded risk research projects*.

Some comments during the discussion were related to problems having their origins in the relatively late start of the research projects (summer and fall 1993). Two of the projects (number 2 and 3) are scheduled to continue until mid 1995. One of the members at the meeting pointed out that it might still be a little bit early for risk analysis. After all, we know very little about the probabilities and the magnitude of the greenhouse damages. This might also be the reason that risk analysis and risk management are further developed in areas other than the global warming area.

Some project-related comments:

- The project on the risk of non-linear climate changes revealed that the state-of-the-art knowledge of the climate system does not allow a full quantitative assessment of the risks. There still appear to be large uncertainties concerning timing, magnitude, and consequences of the non-linear climate changes.
- The title of the second project suggests more than is covered. The focus appears to be on (re)assurance aspects of storms and cyclones and there seems to be relatively little attention to socio-economic impacts. One speaker expressed his doubt on the apparently assumed relation between temperature increase and extreme weather events.
- The decision-analytical modelling (Demos influence-diagram modelling) proposed in the third project -characterizing the risks- was considered a promising approach for comparing the risk of global warming with the risks associated to

mitigative policy options. An important recommendation was to increase the interaction with other projects, notably, projects on the IMAGE model and projects on generating policy options.

The conclusion with regard to the main goal was that the three research projects cover only part of the requirements from the programming memorandum. A full systematic and integrated assessment of all the risks is not yet realized. However, the meeting agrees about the relevance of risk analysis for handling the global warming problem. A final remark stated that current and future risk-analysis research projects might benefit from increased mutual interactions and from interactions with other NRP projects.