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**SEMINAR ON FLOOD PREVENTION
AND PROTECTION**

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TOPIC III

AWARENESS RAISING

INFORMATION POLICY: EDUCATION AND TRAINING */

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***/ The document was produced without final editing.**

1. General aspects

1. This contribution is based on the papers submitted to ECE Seminar, as well as on our Dutch experiences with flood prevention and the recent national policy developments in this field. While this contribution should also facilitate the discussion on the recommendations concerning public awareness of the draft Guidelines, their version of 12 July 1999 (MP.WAT/SEM.2/1999/4) is also taken into account.
2. Talking about "public awareness" concerning floods, we think of a state of motivation and mobilization of the public which can be influenced by authorities by disseminating information with the ultimate aim of saving lives and avoiding damage.
3. We know that there is a large need for information concerning environmental matters: last year the ECE Convention on Access to Information, Public Participation in Decision-Making and Access to Justice in Environmental Matters was adopted.
4. In this Convention, Art. 5, 1 (c) the public demand for information is brought together with the obligation for authorities to inform:
"In the event of any imminent threat to human health or the environment whether caused by human activities or due to natural causes, all information which could enable the public to take measures to prevent or mitigate harm arising from the threat and is held by a public authority is disseminated immediately and without delay to members of the public who may be affected."
5. Paradoxical enough we see in different countries and in different times the public demand for information concerning floods being quite modest. Because of this paradox, this paper is in its title talking of "information policy" instead of "public awareness".
6. A serious warning is given by OELMANN: without flood, there is no interest at all.
7. Even in the Netherlands, with more than half of the country at risk from flooding by the sea and the rivers Rhine and Meuse (JORISSEN), initiatives for risk assessments were only performed after a flood or during a political debate on the necessity of dike reinforcement. In the meantime of course, this debate is a discussion about the allocation of considerable budgets.

2. Protection against hazards versus risk management

8. The subject, safety levels, is very complex. The public, as well as their political representatives, are unfamiliar with these matters. An extra complicating factor is the development of a new approach in this field. MENDEZ LORENZO describes this process for the Dutch flood protection policy: from a prescribed water level which the dikes must be able to withstand to a risk management based policy.
9. He gives different reasons for this change, technical reasons too. But here, the link with the general safety policy of the Dutch Government is a remarkable one. This policy is risk based: all aspects of risk bearing activities and their socio-economic effects must be taken into consideration.
10. These developments are impressively described in a broader context which led to the creation of PLANAT, the Swiss national platform for natural hazards.

11. This new approach has different effects: firstly, a wide variety of possible technical measures can contribute to reduce the risk of flooding. Secondly, when establishing an acceptable flood safety level, a comparison will be made with other risks and already in other fields developed safety levels. By the way, this approach seems to contribute to a policy of equal protection of all citizens, which can be a purpose of a country's Constitution. The explanation to the public at large is getting more difficult: from a dike height to a statistic idea. But informing the public, and the public discussion of the acceptable flood safety level, will play an important role.

12. A recommendation to policy makers in the sense of initiating of, or participating at least in a process to establish acceptable risk levels seems to be an essential element. The aim of such a process would be public awareness in the sense of commitment of the public at large.

3. Preventive measures

13. Political interest, it is already mentioned, comes up during floods and when public budgets have to be allocated to flood protection. It is doubtful whether these moments of interest are sufficient for creating sustainable commitment. Projects to reach the desired safety level or tolerated risk are running over several years, sometimes up to 15 years.

14. As already stated, risk management opens perspective on a wide variety of possible technical measures that can contribute to reduce the risk of flooding. In a densely populated country like the Netherlands the chance of interfering of these measures with the life of different (groups of) citizens is inevitable.

15. As most preventive measures represent a considerable environmental impact, we should not forget the provisions of two ECE Conventions; the one on Environmental Impact Assessment in a Transboundary Context and the other on Access to Information, Public Participation in Decision-Making and Access to Justice in Environmental Matters.

16. Such a recommendation to policy makers and authorities to promote this participation of the public concerned, with the aim to create a sustainable political commitment for environmental sound solutions, would be a very interesting implementation of these ECE Conventions.

17. Complicated and costly technical measures which do not fit well in the 'classic' view on safety, i.e. high and strong dikes, need a clear explanation. The development of an information policy to provide the public with these explanations can be highly recommended.

4. Preparatory measures

18. In spite of all the preventive measures, the probability of flooding still exists. To save lives and to limit damage, the public concerned plays an important role.

19. Two simple financial figures of the damage by the floods in the Dutch part of the river Meuse can illustrate this: 1993 the damage was 120 million ECU, in 1995, 'only' 60 million ECU. This limitation of the damage is explained as the positive effect of individual prevention and preparation: people knew what to do when the water rose.

20. A role of growing importance for private prevention, STANIA presumes in Austria: "With view to the steadily rising value of goods subject to floods, in the future, individual private prevention can become important as well."

21. To get the public motivated to take action, a connection should be made between the problem, flood with danger and damage, and individual behavior, private preventive and preparatory measures. Simple risk maps, as proposed by HILLEN, are an excellent illustrations and instrument for the explanation of this connection.

22. We should not forget that the public demand for information in normal times is quiet limited: "Its like the doctor. When you are healthy and feel well, you don't visit the doctor."

23. Research in the Netherlands showed that most interested are enterprises and farmers located along the river. The reason is not only the fear of damage by floods. Their daily management can be hampered by flood protection measures. By loosing possibilities for expansion or diminishing accessibility of their enterprises, their economic future can be touched. Than they have the care of the safety of livestock and investment goods. These aspects come into play in an earlier stage as personal safety.

24. More or less interested is the public living in the neighborhood of the river: the potential evacuees.

25. To enhance public awareness authorities can use the alarming approach: Highlighting the danger of flooding as a real component of the natural condition of watercourses.

26. But a positive message is more likely to motivate the public concerned to take preventive measures. Highlighting the possibilities of limiting damage and resuming normal activities as soon as possible after flooding.

27. To enable correct action during flood, these people must be informed in normal times what to do when the preventive and protective measures will threaten to be insufficient. This information, in the form of e.g. leaflets, has already to be within their reach before they need it.

28. Concerning the correct behavior of the public at large, and maybe the media, we have one suggestion.

29. Floods are, for the not touched people, an impressive natural phenomenon. In the Netherlands, a lot of curious people wanted to visit in 1993 and 1995 the flooded areas, thus causing traffic jams bothering the necessary services. Catastrophe tourism must be banned in an early stage. The media should help to promote a correct behavior of the public.

30. To reach all the different interested groups of the public concerned, the development of an information policy can be highly recommended. It should be checked whether the information has led indeed to preventive and preparatory action of the public concerned.

5. Post-flood measures

31. After flood a standard assessment of all the response activities should be implemented. Lessons learned are highly effective for improving the preparatory measures, like contingency planning and procedures for assistance. Uniform models for operations reports as well as for reporting the decision making should be developed. They facilitate a standard evaluation of all the response activities.

32. In an national Dutch evaluation of our last flood events, one of the conclusions was that the involved administrations were not acquainted well with the relevant legal framework. Clarity concerning distribution of tasks, competencies

and responsibilities within a national system is especially in crisis situations of crucial importance.

33. Thus, the education and training of the authorities on a regularly basis is an important element of an effective preparation.

6. Conclusions

34. Policy makers should initiate a process to establish acceptable risk levels and to create commitment of the public at large for these risk levels.

35. Policy makers should develop an information policy to provide the public with explanations of planned complicated and costly technical measures, which do not fit well in the 'classic' view on safety.

36. Policy makers and authorities should promote the participation of the public concerned in the decision making, with the aim to create a sustainable political commitment for environmental sound solutions.

37. To motivate the public concerned to take preventive measures, positive messages are more likely to be successful: highlighting the possibilities of limiting damage and resuming normal activities as soon as possible after flooding. It should be checked whether the information has led indeed to preventive and preparatory action of the public concerned.

38. The education and training of the authorities on a regularly basis is an important element of an effective preparation.

39. After flood a standard assessment of all the response activities should be implemented to improve the preparatory measures, like contingency planning and procedures for assistance,

40. "Catastrophe tourism" must be banned in an early stage. The media should help to promote a correct behavior of the public at large.

7. Literature

• submitted for the seminar:

Stania: MP.WAT/SEM.2/1999/9
Mendez Lorenzo and Jorissen: MP.WAT/SEM.2/1999/12
Jorissen: MP.WAT/SEM.2/1999/13
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Oelmann: MP.WAT/SEM.2/1999/29

• other:

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ECE Convention on Environmental Impact Assessment in a Transboundary Context; Espoo, 1991 (ECE/ENHS/NONE/3).

Plan d'Action Inondation Meuse; Namur, 1998

PLANAT - From protection against hazards to the management of risk; Bern, 1997