
SEMINAIRE

СЕМИНАР

SEMINAR

CONVENTION ON THE PROTECTION AND
USE OF TRANSBOUNDARY WATERCOURSES
AND INTERNATIONAL LAKES



Distr.
GENERAL

INTERNATIONAL DECADE FOR NATURAL
DISASTER REDUCTION

MP.WAT/SEM.2/1999/3

14 February 2000

WORLD HEALTH ORGANIZATION
REGIONAL OFFICE FOR EUROPE

Original: ENGLISH

WORLD METEOROLOGICAL ORGANIZATION

**SEMINAR ON FLOOD PREVENTION
AND PROTECTION**

(Berlin, Germany, 7-8 October 1999)

REPORT ON THE SEMINAR

Prepared by the secretariat in consultation with the Chairman
of the task force led by Germany

Introduction

1. The Seminar on flood protection and prevention was held in Berlin (Germany) on 7 and 8 October 1999 at the invitation of the Government of Germany.

2. Following the decisions of the Working Group on Water Management at its first meeting, a task force led by Germany prepared the Seminar as part of the extended work plan under the Convention. The secretariats of the United Nations Economic Commission for Europe (UN/ECE), the International Decade for Natural

Disaster Reduction (IDNDR), now referred to as International Strategy for Disaster Reduction, and the Regional Office for Europe of the World Health Organization (WHO/EURO) all contributed to the preparations. The work currently undertaken by the Co-ordination Sub-Group for Flood Forecasting and Warning of the Regional Association VI (Europe) of the World Meteorological Organization (WMO) was also particularly relevant.

3. The Seminar was attended by representatives of the following countries: Austria, Belarus, Belgium, Bulgaria, Croatia, Czech Republic, Egypt, Finland, France, Georgia, Germany, Greece, Hungary, Ireland, Israel, Kazakhstan, Kyrgyzstan, Latvia, Lithuania, Luxembourg, Netherlands, Poland, Republic of Moldova, Romania, Russian Federation, Slovakia, Slovenia, Spain, Switzerland, the former Yugoslav Republic of Macedonia, Ukraine, United Kingdom and Uzbekistan.

4. The Commission of the European Communities also participated.

5. Representatives of UN/ECE, IDNDR, WHO/EURO, WMO, and the United Nations Educational, Scientific and Cultural Organization (UNESCO) also participated.

6. The International Commission for the Protection of the River Elbe and the International Commission for the Protection of the River Rhine participated in the Seminar.

7. The following NGOs were represented: International Commission on Irrigation and Drainage (ICID), European Chemical Industry Council (CEFIC) and German Association for the Environment and Nature Protection (BUND).

I. OBJECTIVES

8. The Seminar provided a platform for governmental officials to meet experts from the public and private sectors and share their experience with flood prevention and protection. The Seminar helped to promote the convergence of policies and strategies within the scope of the Convention and its Protocol on Water and Health in international, transboundary national and local contexts.

9. The Seminar addressed the managerial and technical aspects of flood prevention and protection; environmental, social and economic assessments; and awareness raising. It provided assistance to the task force in drawing up draft guidelines, which the task force subsequently finalized for submission to the Parties to the Convention for consideration and adoption at their second meeting (MP.WAT/2000/7).

II. OPENING OF THE SEMINAR

10. During the opening session Mr. Jürgen Trittin, Federal Minister for the Environment, Nature Conservation and Nuclear Safety (Germany) addressed the Seminar. His opening address was circulated among the participants.

11. The Seminar adopted its agenda as contained in document MP.WAT/SEM.2/1999/2.

12. Mr. O. MALEK (Germany), Chairman of the task force on flood protection and prevention, chaired the Seminar. Mr. A. NALBERCZYNSKI (Poland), Messrs. A. GOETZ and J. TSCHOPP (Switzerland), and Mr. H. OTERDOOM (Netherlands) acted as rapporteurs on topics I, II and III, respectively.

III. CONSIDERATION OF THE TOPICS OF THE SEMINAR

13. To facilitate the discussion, the rapporteurs had prepared introductory reports on: prevention and protection (topic I); environmental, social and economic assessments (topic II); and awareness raising (topic III). These were based on the discussion papers submitted by Governments prior to the meeting (MP.WAT/SEM.2/1999/8 to 32). The discussion on each topic was introduced by one of the rapporteurs, who also referred to the discussion papers submitted at the meeting itself (MP.WAT/SEM.1/1999/33 to 40).

14. The following issues were addressed and became part of the revised draft guidelines (see chapter IV):

(a) Flood events were part of nature. Natural hazards and flood events were part of nature. They had always existed and would continue to exist. With the exception of some floods generated by dam failure or landslides, floods were climatological phenomena influenced by the geology, geomorphology, relief, soil, and vegetation conditions. Meteorological and hydrological processes could be fast or slow and could produce flash floods or more predictable slow-developing floods, also called riverine floods;

(b) Society had become more vulnerable to natural hazards. Human activities and human interventions in the processes of nature had considerably changed the situation in whole river basins. Although floods were natural phenomena, they could be intensified by human alteration of the environment, such as alterations in the drainage patterns from urbanization, agricultural practices and deforestation. In some cases, it seemed that the impact of floods in terms of human health and economic losses had risen, and the planning of protection against floods could no longer be limited to protecting some isolated assets from certain types of danger;

(c) Change of paradigm. Considering the evolution and trends, the approach to natural hazards required a change of paradigm. One must shift from defensive action against hazards to management of the risk. Flood protection was never absolute; only a certain level of protection against flooding could be guaranteed. The question regularly arose as to what safety was available at what price, and how much of the remaining risk had to be accepted by society. Risk management would be the appropriate method to deal with this challenge;

(d) Holistic approach. Experience had also shown that local flood protection measures could have negative effects both downstream and upstream. Therefore, a holistic approach was necessary to take into account the whole river basin. Such a holistic approach was based on multilateral cooperation, including interdisciplinary planning, for the whole catchment areas. On transboundary rivers, international cooperation was needed;

(e) Prerequisites for proper action. Knowledge was needed on potential threats. Flood prevention should not be limited to flood events which occurred often. It should also include rare events, as human safety was endangered most by them. There was a need for reliable information, for example to take the necessary precautions. Moreover, there was a need for interdisciplinary cooperation regarding all phases of risk management: risk assessment, mitigation planning and implementation of measures. The answer to the question "which level of flood protection can we accept" presumed that one had examined what could happen, i.e. that the risks were properly assessed.

15. The Seminar participants also agreed that there were at least seven basic principles and approaches regarding sustainable flood prevention. To implement them, cooperation at all government levels and coordination of sectoral policies regarding environmental protection, physical planning, agriculture, transport and urban development were needed. For transboundary waters, cooperation was needed among the riparian countries to harmonize national policies and strategies, and to draw up concerted action plans.

16. The Seminar participants also agreed that these basic principles and approaches should become part of the draft guidelines. They included:

(a) Flood events were part of nature. They had always existed and would continue to exist;

(b) Human interference in the processes of nature had increased the threat of flooding. As far as possible, such interference should be reversed, compensated and, in the future, prevented;

(c) Flood prevention should cover the entire catchment area of watercourses; this also applied to transboundary waters and their catchment areas. Flood prevention also had to be based on the precautionary principle;

(d) Structural measures would remain important elements of flood prevention and protection. However, these measures should primarily focus on the protection of human health and safety, and valuable goods and property. Requirements of nature conservation and landscape management should be taken into account;

(e) Everyone who might suffer from the consequences of flood events should also take his/her own precautions. To this end, appropriate information and forecasting systems should be established by the competent authority;

(f) Human uses of flood plains should be adapted to the existing hazards. Appropriate instruments and measures should be developed to reduce the risk of flooding;

(g) In flood-prone areas, preventive measures should be taken to reduce possible adverse effects of floods on aquatic and terrestrial ecosystems, such as water and soil pollution.

17. A number of other topics were raised. They were taken up by the task force to revise the draft guidelines. These included: consideration of the impact of all major human activities related to flood prevention and protection in the catchment area on society as a whole; environmental health impact assessments; development of an information policy covering risk communication and facilitating public participation in decision-making; good practices to explain to laymen the dangers connected with floods (e.g. flood-level marks, mobile exhibitions); giving information to the public about the authorized institution expected to issue reliable information on floods before, during and after flood events.

18. Attention was also given to land use and flood plain management (management of retention areas, construction and operation of dams) which had to cope, inter alia, with: making existing construction in flood plains flood-compatible and prohibiting further construction; banning urbanization in flood plains; converting arable land in flood plains into grassland; moving dykes to give more space to the river rather than building dykes to protect agricultural areas; emptying reservoirs prior to floods instead of continuing hydro-power generation.

IV. CONSIDERATION OF THE DRAFT GUIDELINES ON FLOOD PREVENTION AND PROTECTION: CONCLUSIONS AND RECOMMENDATIONS

19. The Seminar examined the preliminary draft guidelines on flood prevention and protection (MP.WAT/SEM.2/1999/4), and provided guidance to the task force to finalize these guidelines for submission to the Parties for consideration at their second meeting.

20. The participants agreed that the recommendations contained in the guidelines could be applied in both a transboundary and a national context. Therefore, the Seminar recommended that the Parties to the Convention and non-Parties should apply these guidelines in the framework of their cooperation on transboundary water management and, as far as appropriate, in the national context. They considered it important that the Parties should inform each other, under the auspices of the Meeting of the Parties, on the application of these guidelines within the framework of bilateral and multilateral cooperation.

21. The Chairman informed the participants that the task force would meet on 9 October 1999 to make arrangements for the finalization of the guidelines in the light of the outcome of the Seminar.

22. Various proposals were made for possible follow-up on flood prevention and protection under the auspices of the Meeting of the Parties. These included: training of representatives of joint bodies and organization of flood response exercises.

23. Once the work on the guidelines was finalized, one Party to the Convention recommended as follow-up the drawing-up of a protocol on sustainable flood prevention. This delegation referred to the discussion at the first meeting of the Working Group on Water Management, which in 1998 had considered it opportune to prepare recommendations and guidelines for ECE Governments on flood prevention, rather than starting immediately with the drafting of legally binding

provisions (MP.WAT/WG.1/1998/2, paras. 15 and 16). Other delegations said that they would rather amend the Convention to broaden its scope to flood issues than draft a completely new legal instrument. Other participants reported that their Governments preferred working with non-binding instruments on flood prevention.

V. CLOSURE

22. The Chairman informed the Seminar participants that his Government would publish the proceedings of the Seminar and the guidelines on flood prevention and protection once adopted by the Meeting of the Parties.

23. The Seminar expressed its gratitude to the Government of Germany for the excellent organization and for the financial support given to the participants from countries in transition.

ANNEX I

LIST OF DOCUMENTS

MP.WAT/SEM.2/1999/1	Programme of the Seminar-First announcement and call for discussion papers	E/F/R
MP.WAT/SEM.2/1999/2	Programme of the Seminar-Note by the secretariat	E/F/R
MP.WAT/SEM.2/1999/3	Report	E/F/R
<u>Introductory reports</u>		
MP.WAT/SEM.2/1999/4	Preliminary draft guidelines on flood prevention and protection	E/F/R
MP.WAT/SEM.2/1999/5	Topic A - Prevention and protection. Introductory report prepared by Mr. A. Naberczynski, Poland	E
MP.WAT/SEM.2/1999/5/ Corr.1 */	Corrigendum to the report on topic A, prepared by Mr. A. Naberczynski, Poland	E
MP.WAT/SEM.2/1999/6	Topic B - Environmental, social and economic assessments. Introductory report prepared by Messrs. A. Götz and J.W. Tschopp, Switzerland	E
MP.WAT/SEM.2/1999/7	Topic III - Awareness raising: Information policy: education and training. Introductory report prepared by Mr. H. Oterdoom, Netherlands	E
<u>Discussion papers</u>		
MP.WAT/SEM.2/1999/8	Flood protection in Azerbaijan (Prepared by Mrs. M. Adigezalova, Azerbaijan)	E

MP.WAT/SEM.2/1999/9	Flood protection in Austria (Prepared by Mr. K. Stania, Austria)	E
MP.WAT/SEM.2/1999/10	Flood forecasting and warning in the Rhine basin - Recommendations for improvements in the framework of the flood action plan - Case study: The Netherlands (prepared by Mr. B. Parmet (Netherlands), Mr. B. Schädler (Switzerland), Mr. E. Sprokkereef (Netherlands) and Mr. K. Wilke (Germany))	E
MP.WAT/SEM.2/1999/11	Room for the River Rhine in the Netherlands: an integrated approach to flood protection (prepared by Mr. W. van de Langemheen, Netherlands)	E
MP.WAT/SEM.2/1999/12	Risk-based flood protection policy (prepared by Messrs. A.B. Méndez Lorenzo and R.E. Jorissen, Netherlands)	E
MP.WAT/SEM.2/1999/13	Safety, risk and flood protection policy (prepared by Mr. R.E. Jorissen, Netherlands)	E
MP.WAT/SEM.2/1999/14	Assessment of safety against flooding in the Netherlands (prepared by Messrs. H. De Looff and J.W. Van Der Meer, Netherlands)	E
MP.WAT/SEM.2/1999/15	The way to a floodrisk-based safety concept- Four case studies (prepared by Messrs. A.M. van Agthoven, F. Den Heijer and A.W. Kraak, Netherlands)	E
MP.WAT/SEM.2/1999/16	Flooding risks of floodplain areas in the Netherlands (prepared by Mr. D.C.M. Klaassen, Netherlands)	E
MP.WAT/SEM.2/1999/17	The general flood protection strategy for the Upper and Middle Odra river basin after the great flood of July 1997 (prepared by Mr. A. Nalberczy ¹ / ₂ ski, Poland)	E
MP.WAT/SEM.2/1999/18	Transboundary cooperation on flood forecasting at the River Tornionjoki between Finland and Sweden (prepared by Mr. B. Vehviläinen, Finland)	E
MP.WAT/SEM.2/1999/19	Flood prevention and protection activity (prepared by Messrs V. Ropot and S. Kumanich, Republic of Moldova)	E

MP.WAT/SEM.2/1999/20	The system of flood protection measures in the Russian Federation-Floods and health (prepared by Mr. V.S. Kukosh, Russian Federation)	E
MP.WAT/SEM.2/1999/21	Flood protection in the 21st century-The Netherlands perspective (prepared by Messrs. R. Hillen, R. Van Venetië and B. Zegers, Netherlands)	E
MP.WAT/SEM.2/1999/22	Floods and public health consequences, Prevention and control measures (prepared by Mrs. B. Menne, Messrs. K. Pond and R. Bertollini (WHO-European Center for Environment and Health-Rome division) and Mr. E. NOJI (WHO, Geneva))	E
MP.WAT/SEM.2/1999/23	Remote sensing methods to study floods (prepared by Messrs. V. Usachev and V. Prokacheva, Russian Federation)	E
MP.WAT/SEM.2/1999/24	Emergency flood storage in Hungary (prepared by Mr. Lajos Szlávik, Hungary)	E
MP.WAT/SEM.2/1999/25	Reconciliation of the ecological, forest cultural and flood control aspects in the flood berms of the Hungarian rivers (prepared by Mr. I.G. Török, Hungary)	E
MP.WAT/SEM.2/1999/26	Flood protection in Hungary (prepared By Messrs J. Váradi and B. Göncz, Hungary)	E
MP.WAT/SEM.2/1999/27	Flood action plans (prepared by Mr. A. Göttle, Germany)	E
MP.WAT/SEM.2/1999/28	Designation of flood plains in Bavaria (Germany)(Prepared by Messrs. A. Göttle, K. Deindl and F. Rothmeier, Germany))	E
MP.WAT/SEM.2/1999/29	Flood protection concept for the city of Cologne (Prepared by Mr. H. Oelmann, Germany)	E
MP.WAT/SEM.2/1999/30	Flood response and emergency exercise in the water system of the Kymijoki River 19-20 May 1999 (prepared by Mr. T. Eskola, Finland)	E

MP.WAT/SEM.2/1999/31	Multi-level approach to master the floods in the Netherlands's part of the River Meuse (prepared by Messrs. W. Van Leussen, G. Kater and P. Van Meel, Netherlands)	E
MP.WAT/SEM.2/1999/32	Flood risk management - the Swiss experience (prepared by Mr. A. Petrascheck, Switzerland)	E
MP.WAT/SEM.2/1999/33	The role of high Aswan dam towards Nile flood control (prepared by Mr. M.B.A. Saad, Egypt)	E
MP.WAT/SEM.2/1999/34*/	Flood forecasting in the Czech Republic (Prepared by Mr. J. Kubát, Czech Republic)	E
MP.WAT/SEM.2/1999/35*/	Flood Protection in the Czech Republic (Prepared by Mr. J. Kinkor, Czech Republic)	E
MP.WAT/SEM.2/1999/36*/	Flood Control in the Former Yugoslav Republic (Prepared by the Ministry for Agriculture, Forestry and Water Economy, the former Yugoslav Republic of Macedonia)	E
MP.WAT/SEM.2/1999/37*/	Flood Prevention and Protection in the Russian Federation (prepared by Messrs. S. Bednarouk and E. Ovcharov, Russian Federation)	E
MP.WAT/SEM.2/1999/38*/	Flood control measures in the Russian Federation and other countries (Prepared by Messrs. G. Chuelov and V.V. Milovsky, Russian Federation)	E
MP.WAT/SEM.2/1999/39*/	Flood Prevention and Protection in the Republic of Bulgaria (prepared by the Government of Bulgaria)	E
MP.WAT/SEM.2/1999/40*/	The development of Flood Forecasting and Warning in the European Region (prepared by Mrs. H. Bartels (Germany) and Mr. G. Balint (Hungary) on behalf of the Co-ordination Sub-group for Flood Forecasting and Warning established by WMO's Regional Association VI (Europe))	E

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