



**Economic and Social  
Council**

Distr.  
GENERAL

ECE/MP.WH/WG.1/2009/8  
EUR/5086343/6  
19 May 2009

Original: ENGLISH

**ECONOMIC COMMISSION FOR EUROPE**

**WORLD HEALTH ORGANIZATION  
REGIONAL OFFICE FOR EUROPE**

MEETING OF THE PARTIES TO THE  
PROTOCOL ON WATER AND HEALTH  
TO THE CONVENTION ON THE PROTECTION  
AND USE OF TRANSBOUNDARY  
WATERCOURSES AND INTERNATIONAL  
LAKES

Working Group on Water and Health

Second meeting  
Geneva, 2–3 July 2009  
Item 6 of the provisional agenda

WATER SUPPLY AND SANITATION IN SHORT-TERM CRITICAL SITUATIONS AND  
ADAPTATION TO CLIMATE CHANGE

**PROGRESS REPORT AND FUTURE WORK OF TASK FORCE ON  
EXTREME WEATHER EVENTS**

Report by the Chairperson of the Task Force on Extreme Weather Events<sup>1</sup>

*Summary*

The Working Group on Water and Health is responsible for the overall implementation of the programme of work under the Protocol on Water and Health. It reviews progress, proposes modifications to the work programme to adapt to changing conditions, and reports to the Meeting of the Parties (see the terms of reference in document ECE/MP.WH/2/Add.2 -

<sup>1</sup> The present document was submitted late due to resource constraints on the part of the secretariat.  
GE.09-21962

EUR/06/5069385/1/Add.2). The present document gives an overview of the main accomplished and ongoing activities of the Task Force on Extreme Weather Events. It also contains planned future actions. The annex to the document presents the outline of the guidance on water supply and sanitation in extreme weather events.

## **I. BACKGROUND**

1. The first meeting of the Parties to the Protocol on Water and Health to the Convention on the Protection and Use of Transboundary Watercourses and International Lakes (Geneva, 17–19 January 2007) established a Task Force on Extreme Weather Events, led by Italy (the Ministry of Environment, Land and Sea). According to the work programme adopted by the Meeting of the Parties (ECE/MP.WH/2/Add.5 - EUR/06/5069385/1/Add.5), the Task Force's mandate includes the following main activities:

(a) To share experience on and identify relevant local/national good practices regarding the safe operation of water supply and sanitation facilities in urban and rural areas subject to the impact of short-term critical situations, and to prepare guidance to respond to short-term critical situations;

(b) To draft a strategy paper on how to cope with the potential impact of climate change, and on adaptation and mitigation programmes for water supply and sanitation.

2. Consequently, the joint meeting of the Bureaux of the Convention and the Protocol on Water and Health (13 September 2007, Geneva) called for close cooperation and integration of the results of the activities carried out by this Task Force on Extreme Weather Events and the Task Force on Water and Climate. At its the first meeting (Bonn, Germany, 22–23 November 2007), the Task Force on Water and Climate agreed that it would be crucial to integrate inputs from the Task Force on Extreme Weather Events into the draft Guidance on Water and Climate Adaptation on the environmental determinants of health, water quality, and safe water supply and sanitation issues in extreme weather events.

## **II. MAIN ACCOMPLISHED AND ONGOING ACTIVITIES**

3. The first meeting of the Task Force on Extreme Weather Events, (Rome, 21–22 April 2008) endorsed the following main areas of work:

(a) Pursue joint activities with the Task Force on Water and Climate for the development of a guidance on water and climate adaptation;

(b) Review/share good practices and adaptation measures at the country level in the area of extreme events and climate change;

(c) Develop guidance for safe water supply and sanitation during extreme weather events to support and assist countries in developing adaptation and mitigation programmes;

(d) Explore a possible contribution to the fifth Ministerial Conference on Environment and Health in Europe to be held from 24 to 26 February 2010 in Parma, Italy.

**A. Contribution to the draft Guidance on Water and Climate Adaptation**

4. The Task Force on Extreme Weather Events actively participated in the development of the draft Guidance through substantive inputs by, inter alia, the Chairperson of the Task Force and representatives of World Health Organization Regional Office for Europe (WHO-Europe) in the drafting and editorial group.

5. The Task Force made substantial contributions to the International Workshop on Adaptation to Climate Change in the Water Sector, (Amsterdam, 1–2 July 2008) by organizing a session on water quality and health as well through the participation and presentations from Task Force members and partners, e.g. from the Republic of Moldova, Slovakia and the United Kingdom.

**B. Development of the Guidance on Water Supply and Sanitation in Extreme Weather Events**

6. The main current ongoing activity of the Task Force consists of the development of the Guidance on Safe Water Supply and Sanitation in Extreme Weather Events. In the light of the growing international consensus on including disaster management in adaptation policy frameworks, the aim is to support utilities managers for environment and health risk management in adaptation measures to adverse meteorological conditions.

7. The Guidance are being developed as a response to the growing number of extreme weather events in the United Nations Economic Commission for Europe (UNECE) region and their related effects on health and well being. Water supply and sanitation utilities are key health determinants in these critical conditions. Climate change amplifies the vulnerability of these services, especially in terms of the quality of performance under critical conditions, the implementation of technology development, the safe delivery of the services and the occurrence of chemical and microbiological contamination of environmental media of health relevance. For these reasons, utilities managers should be involved in the development of adaptation strategies, including those related to communications and the assessment of environment and health risks emerging from changes in temperature, the water cycle and weather patterns. Significant contaminations of water and biota may follow flooding events. Increasing water scarcity may further limit access to water for sanitation, and consequently exacerbate health impacts and limit the ability of natural ecosystems to assimilate wastes. In large cities, water scarcity is reducing the self-cleaning capacity of sewers, and flooding is worsening storm water overflows and the resulting pollution.

8. The Guidance – currently being developed by a multidisciplinary drafting group consisting of environment, health and water professionals and utilities managers – are therefore aim to provide knowledge on the new risk elements and adaptation measures required by climate change and variability in the critical conditions of adverse meteorological events.

9. To date, the drafting group has held two meetings (Madrid, 22 October 2008 and Rome, 23–24 February 2009). It has made substantial progress in elaborating the Guidance. The drafting group is currently further developing its individual chapters. (An extended outline of the Guidance is available in the annex to this document.) A more extended draft version will be submitted to the second meeting of the Working Group on Water and Health as an informal document, in both English and Russian.

### **III. FUTURE WORKPLAN**

10. The following steps are envisaged to finalize the Guidance on Safe Water Supply and Sanitation in Extreme Weather Events:

(a) 2–3 July 2009 – presentation of the advanced draft to the second meeting of the Working Group on Water and Health for comment and suggestions;

(b) August–September 2009 – circulation of the commented draft among partners and experts for review;

(c) 27–28 October 2009 – presentation of a final draft to the second meeting of the Task Force on Extreme Weather Events (Geneva);

(d) 24–26 February 2010 – presentation of the draft Guidance to fifth Ministerial Conference on Environment and Health (Parma, Italy);

(e) Autumn 2010 (tbc) – adoption of the Guidance at the second session of the Meeting of the Parties to the Protocol on Water and Health.

### **IV. PROPOSED ACTION BY THE WORKING GROUP**

11. The Working Group is invited to comment and advise the Task Force on the work achieved and future activities, in particular by:

(a) Providing inputs to the drafting process of the Guidance on Safe Water Supply and Sanitation in Extreme Weather Events and on the planned future activities including expert review process of the Guidance, especially in Russian-speaking countries;

(b) Commenting on the draft Guidance on Water and Adaptation to Climate Change and, as needed, offering advice on how health aspects could be further developed;

(c) Discussing and agreeing on ways and means to mobilize the missing funds needed to implement the Task Force's workplan, in particular a pilot project for testing the Guidance.

## **Annex**

# **GUIDANCE ON WATER SUPPLY AND SANITATION IN EXTREME WEATHER EVENTS**

## Draft outline

### **Preface**

### **Introduction**

#### **1. Where we are in the Region**

- 1.1 Climate change scenarios and environment and health impacts in extreme weather events

#### **2. Climate change, extreme weather events and water services:**

- 2.1 Current knowledge

- 2.3 Future challenges:

- (a) Conflicts between adaptation and mitigation policies
  - (b) Technology improvement

#### **3. Basic disaster preparedness and early warning systems**

- 3.1 Intersectoral cooperation and disaster management

- 3.2 Information needs and risk assessment

- 3.3 Tools for disaster preparedness planning

- 3.3 The role of the health system in disaster preparedness and early warning

#### **4. Communication in extreme weather events**

- 4.1 Importance of a communication strategy

- 4.2 Communicating at different levels – household, industry, public

- 4.3 Communication tools

#### **5. Impacts on coastal areas in extreme weather events**

- 5.1 Saline water intrusion in aquifers and extreme events

- 5.2 Impact of extreme weather events on the quality of recreational waters
- 5.3 The impact of extreme weather events on the quality in water used for aquaculture,
- 6. Impacts of extreme weather events on health**
- 6.1 Health impacts of extreme temperatures and extended droughts
- 6.2 Impact of floods
- 6.3 Vector-borne diseases and extreme events
- 6.4 Food safety and extreme events
- 7. Integrating extreme weather events in risk assessment and the management of water utilities**
- 7.1 The water safety plan approach
- 7.2 Sanitation management
- 8. Adaptation measures for water supply utilities**
- 8.1 Impacts on the water supply sector
- 8.2 Adaptation measures during droughts
- 8.3 Adaptation and mitigation during floods
- 8.4 Recovery of the drinking water supply in drought and floods
- 9. Adaptation measures for drainage, sewerage and wastewater treatment**
- 9.1 Impacts on drainage, sewerage and wastewater treatment systems
- 9.2 Adaptation measures during droughts
- 9.3 Adaptation measures during floods
- 9.4 Recovery of drainage, sewerage and wastewater treatment plants
- 10. Conclusions and recommendations**

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