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**ECONOMIC COMMISSION FOR EUROPE**

**WORLD HEALTH ORGANIZATION  
REGIONAL OFFICE FOR EUROPE**

**MEETING OF THE SIGNATORIES TO  
THE PROTOCOL ON WATER AND HEALTH  
TO THE 1992 CONVENTION ON THE  
PROTECTION AND USE OF TRANSBOUNDARY  
WATERCOURSES AND INTERNATIONAL LAKES**

Second meeting,  
Geneva, 2-4 July 2003  
Item 3 of the provisional agenda

**GENERAL OVERVIEW ON THE INTERIM IMPLEMENTATION  
OF THE PROTOCOL**

Prepared by the joint secretariat

Introduction

1. The 3rd Ministerial Conference on Environment and Health (London, United Kingdom, 16 – 18 June 1999) adopted the Protocol on Water and Health to the 1992 Convention on Protection and Use of Transboundary Watercourses and International Lakes (hereinafter referred to as Water Convention). The Protocol has been signed by 36 countries. At the time of writing, eight countries have ratified the Protocol: Albania, Azerbaijan, Czech Republic, Hungary, Luxemburg, Romania, Russian Federation and Slovakia. A running update of the ratification status of the Protocol is maintained at [http://www.unece.org/env/water/status/lega\\_wh.htm](http://www.unece.org/env/water/status/lega_wh.htm)

2. The United Nations Economic Commission for Europe (UNECE) and the World Health Organization (WHO) serve as co-secretariats to the Protocol. Information submitted by member countries to the joint secretariat lead to the expectation that the Protocol could enter into force in mid-2004 and thus become the first internationally-binding legal instrument in the fight against water-related diseases.

3. When considering the ratification status of the Protocol, it is useful to remember that the Water Convention was adopted on 17 March 1992 and entered into force 4 ½ years later (6 October 1996). One of the reasons for such a long period was that countries had to adapt their national legislation to the provisions of the first pan-European water instrument. Compared to the parent Convention, and noting the need for investment in the water sector, the ratification of the Protocol is proceeding with the expected speed.

4. The present paper:

- Places the work under the Protocol in the context of new international initiatives related to sustainable development of water resources, in general, and water and health, in particular;
- Reviews progress achieved in the interim implementation period of the Protocol;
- Highlights priorities identified under the Protocol and their relation with the Children Environment Health Action Plan (CEHAP) currently being developed;
- Notes constraints to the further sustainable development of the Protocol work; and
- Informs on related activities.

## I. CONTEXT

5. The term 'sustainable development' was probably coined by Barbara Ward, the founder of the International Institute for Environment and Development, who pointed out that socio-economic development and environment need to be linked.

6. In 1972, *The Limits to Growth* highlighted the unsustainable nature of mainstream development. The United Nations Conference on the Human Environment (Stockholm, 1972) was the first international discussion of environmental issues. The *World Conservation Strategy* and *The Global 2000 Report to the President* promoted sustainable development. The concept finally received global recognition with the publication of *Our Common Future* (known as 'the Brundtland Report') which, in turn, gave rise to the 1992 United Nations Conference on Environment and Development. One of the main outcomes of this Conference was Agenda 21, which for the first time proposed concrete actions for the management and protection of water resources.

7. In 1999, the *UNICEF Declaration on the Survival, Protection and Development of Children and its associated Plan of Action* (see <http://www.unicef.org/wsc>), recognized the importance of safe water and sanitation to child health. During the same year, delegates to the 3<sup>rd</sup> Ministerial Conference on Environment and Health adopted the *Protocol on Water and Health to the 1992 Convention on the Protection and Use of Transboundary Watercourses and International Lakes*. WHO, together with UNECE, serve as co-secretariats for the Protocol. Following ratification by sixteen countries, the Protocol will become the world's first multilateral legal instrument in the fight against water-related diseases. The importance of this fight has only increased since the adoption of the Protocol.

8. In 2000, the *United Nations Millennium Declaration*, adopted in September of that year by representatives from 189 countries, set out principles and values for the twenty-first century and identified seven areas in which specific commitments were made. The Declaration gives prominence to health concerns. It specifically calls:

- To halve, by 2015, the proportion of world's people whose income is less than one dollar a day and ... by the same date, to halve the proportion of people who are unable to reach or afford safe drinking water;
- By the same date, to have reduced the Standardized Death Rate (SDR) in children younger than five by two-thirds of their current rates;
- To have, by then, halted, and begun to reverse, the scourge of malaria and other major diseases;
- By 2020, to have achieved a significant improvement in the lives of at least 100 million slum dwellers.

9. In 2002, these goals were endorsed and strengthened by the World Summit on Sustainable Development (Johannesburg, South Africa, 26 August – 4 September 2002),

which added the goal to halve, by 2015, the proportion of people who do not have access to basic sanitation.

10. In 2002, the United Nations Committee on Economic, Social, and Cultural Rights recognized *water as an independent right* when it stated that: “the right to water clearly falls within the category of guarantees essential for securing an adequate standard of living, particularly since it is one of the most fundamental conditions for survival”. Also in 2002, the United Nations General Assembly, at the recommendation of Tajikistan, proclaimed 2003 the *International Year of Freshwater*.

11. Finally, in March 2003, the third *World Water Forum* (Kyoto) recognized that increasing water use efficiency through developments in science and technology and improved demand management are essential. But these alone may not be sufficient to meet the growing demand for water in most developing regions and particularly in cities. All options to augment the available water supply, including increased storage through the use of groundwater recharge and dams, need to be considered, ensuring that all those who will be affected will also benefit.

## **II. PROGRESS ACHIEVED UNDER THE PROTOCOL**

12. Work under the Protocol has progressed at three levels:

- Policy meetings, where priority concerns are discussed and common guidance to the member countries is formulated;
- Technical meetings, where practical approaches to recognized or emerging problems are being defined;
- Practical interventions in the countries.

13. Information on the progress achieved in the implementation of the Protocol is posted, in full and in different languages, under [http://www.euro.who.int/watsan/MainActs/20030219\\_1](http://www.euro.who.int/watsan/MainActs/20030219_1). Specific documents are also available from the web sites of the Water Convention ([www.unece.org/env/water](http://www.unece.org/env/water)) and UNECE’s collaborating centre (the International Water Assessment Centre, IWAC) at [www.iwac-unece.org](http://www.iwac-unece.org).

### **A. Policy meetings**

1. First meeting of the Signatories (Budapest, Hungary, 2-3 November 2003)

14. The first meeting of the Signatories to the Protocol was attended by: Azerbaijan, Belgium, Croatia, Czech Republic, Finland, France, Georgia, Greece, Hungary, Italy, Latvia, Lithuania, Netherlands, Norway, Poland, Portugal, Republic of Moldova, Romania, Russian Federation, Slovakia, Slovenia, Sweden, Switzerland, Ukraine and United Kingdom.

15. Based on priority concerns communicated by the member countries to the joint secretariat, the Signatories reached a number of conclusions for further work. On the prevention of water-related diseases, it was recommended that:

- Measures aimed at protecting the resource would need to be strengthened, procedures that allow the assessment of the efficacy of resource protection plans need to be formulated and tested;
- The roles of agencies other than the Ministries of Health and the Ministries of the Environment/Water needed to be recognized, particularly their roles in the implementation of the Protocol;
- Decentralized water supply needed to be recognized as a special area of concern in meeting the goals of the Protocol;
- Efforts to improve sanitation, particularly in East European, Caucasian and Central Asian countries, need to be strengthened.

16. With regard to the detection of water-related diseases, the Signatories recognized that a substantial basis exists for monitoring these diseases, but:

- No comparative study seemed to exist on the system of monitoring, through national health services or general practitioners, on a pan-European basis, so that there was no exchange of experience, and no standardization of reporting techniques. The latter was felt to be particularly important in the field of transboundary rivers;
- The same was true of systems for data analysis and reporting;
- The evaluation and harmonization of the monitoring and data interpretation of the existing systems seemed to be important prerequisites for the implementation of the Protocol.

2. First meeting of the Working Group on Water and Health (Budapest, 14-15 May 2001)

17. The first session of the Working Group on Water and Health was attended by participants from: Belgium, Bulgaria, Croatia, Czech Republic, Finland, Germany, Hungary, Italy, Netherlands, Russian Federation, Slovakia, Slovenia, Switzerland and United Kingdom.

18. The Working Group welcomed the development of a rapid environment and health risk assessment methodology (REHRA) supported by Italy, and requested, inter alia, that: (a) a dedicated web site for the exchange of information should be created and hosted by WHO; (b) current draft guidance documents on surveillance of water-related diseases should be made accessible on a restricted-area web site hosted by WHO; and (c) a discussion paper should be drawn up regarding the participation of NGOs and professional organizations in meetings under the Protocol.

3. Second meeting of the Working Group on Water and Health (Budapest, 28-29 October 2002)

19. The second meeting of the Working Group was attended by participants from: Belgium, Croatia, Czech Republic, France, Georgia, Germany, Hungary, Italy, Malta, Netherlands, Norway, Portugal, Romania, Slovakia, Sweden, Switzerland, United Kingdom, Ukraine, and Yugoslavia.

20. The Working Group, inter alia:

- Reviewed the legislation currently governing potability of water in member countries and urged a more general use of the WHO Drinking Water Quality Guidelines (WHO DWQG) as a basis for national legislation;
- Adopted the review methodology for waste-water treatment plans as developed by the Mediterranean Action Plan;
- Advocated the development of the Annapolis Protocol into an operational guideline for the monitoring of recreational waters;
- Approved the preparation of a comprehensive report on water quality and health for submission to the first meeting of the Parties to the Protocol;
- Requested WHO to review current surveillance systems for water-related diseases, identify common areas, and coordinate the development of *Basic Surveillance of Water-related Diseases* for submission to the first meeting of the Parties to the Protocol;
- Invited WHO to initiate discussions with other relevant organizations, particularly EUROSTAT and EEA in order to explore complementarity of data sets concerning water supply and sanitation, and prevent overlap of data gathering efforts.

**B. Technical meetings**

1. Assessment of the evidence base (Bonn, Germany, 25-26 October 2001)

21. The meeting addressed the issue of developing surveillance guidance, and formulated recommendations in terms of priority water-related diseases, data required to assess water supply systems, data gathering and information, and outbreak investigation.

2. Health risks in aquifer recharge (Budapest, 9-10 November 2001)

22. The meeting was organized with the support from WHO Headquarters, and was a reaction to the increasing level of water scarcity and water stress in the region. A state-of-the-art report has been prepared, which summarizes current methods of assessment and management of health risks related to aquifer recharge by means of reclaimed water.

3. Goals and strategies for water-related disease surveillance

23. Noting the outcome of the work described above under “assessment of the evidence base”, participants to this meeting reviewed the priorities in the light of the specific conditions prevailing in the eastern part of the region. A list of priorities was fixed as follows:

- Symptoms of diseases of unknown aetiology: acute gastrointestinal diseases; severe and acute diarrhoea; vomiting, continuous fever, and bradycardia; and jaundice;
- Disease causing chemicals: nitrate; iron; arsenic; manganese; fluoride; iodine; strontium; and pesticides;
- Diseases of primary importance: cholera; Bacillary Dysentery (Shigellosis); EHEC; Viral Hepatitis A; and Typhoid Fever;
- Diseases of secondary importance: campylobacteriosis; Cryptosporidiosis; Giardiasis Intestinalis; and infections by Calicivirus.

24. The group reviewed routine surveillance monitoring techniques, and recommended the use of information from many fields in exercising control “from source to tap”.

25. The group also recognized that priority diseases are likely to show sub-regional relevance, and therefore advocated to base reporting not on the basis of geographical proximity of countries, but on their level of socio-economic development. Furthermore, the group recommended that reviews be undertaken on the current reporting systems, including organigrams showing the linkages with organizations outside the health sector proper, and that information on current notifiable disease systems in all countries be compared.

4. Meeting of WHO Collaborating Centres (Rome, 22 February 2002)

26. The eight collaborating centres with a mandate on water and health reviewed priority areas for cooperation, and recommended the following topics:

- Surveillance of water-related diseases;
- Poverty, water and health;
- Prevention of terrorism.

27. Other important themes identified were:

- Health risks through private wells and community water supply systems;
- Principles and practices in prevention of health damage from man-made recreational water environments;
- Development of distance learning post-graduate programmes on water and health.

5. Meeting of the International Water Assessment Centre (Lelystad, Netherlands, 8 May 2003)

28. At the steering group meeting, the tasks and role of the International Water Assessment Centre (IWAC), established in 2000 under the UNECE Water Convention, were specified as follows:

- IWAC is the collaborating centre on integrated water resources management of the United Nations Economic Commission for Europe (UNECE). The Institute for Inland Water Management and Waste Water Treatment (RIZA) in Lelystad, Netherlands, hosts the centre;
- IWAC supports the UNECE Water Convention and its Protocols on Water and Health and on Civil Liability for Damage caused by Industrial Accidents;
- IWAC is a joint platform for scientists and policy makers to respond to new challenges in water policy development and implementation at national, transboundary and international levels. It builds on a network of leading European water institutions. Other governmental and non-governmental organizations and programmes are invited to join IWAC's activities;
- By providing its expertise on water-related monitoring, assessment, information technology and public participation, IWAC particularly helps further developing and implementing
  - *The Partnership on Water for Sustainable Development*, the East European, Caucasian and Central Asian (EECCA) component of the EU Water Initiative;
  - *The EU Water Framework Directive* in transboundary water basins on the fringe of the enlarged EU area and in EECCA countries;
  - *The World Water Assessment Programme* of the United Nations, including indicator development for the water sector;
- IWAC's state-of-the-art reports and guidelines, training courses and workshops, and advice to joint bodies should add value to the work under the Convention. IWAC should continue to organize international conferences, such as MONITORING TAILOR-MADE, and contribute to other international events, such as ECWATECH IN THE Russian Federation.

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### **C. Practical intervention at the country level**

30. WHO provides support for bilateral cooperation activities (BCA) at the country level, as well as funding for sub-regional programmes under the Public Health Initiative (PHI). UNECE provides, through its operational activities, support to countries in implementing the Water Convention and its Protocol on Water and Health.

#### 1. Bilateral cooperation activities (BCA)

31. BCA programmes have now been operational in the following countries and on the following topics:

- Azerbaijan: introduction of the WHO DWQG as a basis for national legislation;
- Latvia: upgrading of drinking water laboratories;
- Malta: health systems in tourist areas;
- Romania: laboratory capacity building and waterborne disease analysis;
- Russian Federation: implementation of the Protocol – surveillance methods;
- Tajikistan: surveillance of drinking water quality;
- Turkmenistan: upgrading of drinking water laboratories.

#### 2. Public Health Initiative

32. The participating countries of Central Asia identified priorities in the fight against gastro-intestinal diseases and related to water supply structures as follows:

- Assessment of water supply structures as health risk factors, taking into account resource protection, treatment, and distribution;
- Management of new water distribution systems in order to maximize the life span of these structures;
- Development of holistic water safety plans;
- Improved surveillance systems for water-related diseases with special emphasis on children;
- Understanding and management of health risks associated with highly saline drinking waters;

- Guidance on management of health risks related to water quality in the house, especially in areas where drinking water networks are deficient<sup>1</sup>.

### **III. RELATIONSHIP WITH THE CHILDREN ENVIRONMENT HEALTH ACTION PLAN (CEHAP)**

33. During the development of the draft water component of the Children Environment Health Action Plan, great attention has been given to the identification of priority areas of cooperation which would answer to the specific needs of children, while at the same time strengthening the countries in their efforts to meet international commitments, particularly the targets of the Millennium Declaration. The following components are currently being proposed.

#### **A. Water supply and sanitation infrastructure**

34. The objectives are: (a) to improve the information base for actions related to water and health in general; (b) to improve the information base on water supply in urban and rural areas; and (c) to improve the information base on sanitation in urban and rural areas.

35. Actions to be taken are to improve basic information gathering on water supply and sanitation through the development of consistent and homogenous monitoring programmes, particularly in cooperation with UNICEF, EUROSTAT and EEA.

36. The targets of the proposed component of CEHAP relates directly to the Target 10 of the Millennium Declaration to halve, by 2015, the proportion of people without sustainable access to safe drinking water.

#### **B. Waterborne gastrointestinal diseases**

37. The objectives include: (a) to strengthen the evidence base on priority water-related diseases; (b) to provide guidance on preventive measures; and (c) to provide guidance on remedial measures.

38. Actions to be taken include: (a) to improve gender- and age-sensitive surveillance of waterborne infectious diseases by strengthening national capacities where needed, and by ensuring that the WHO Regional Office for Europe includes priority microbial diseases as identified by the Protocol on Water and Health into its standardized information systems, particularly the “Health-for-All” database maintained by WHO; (b) to set up data collection and surveillance systems that strengthen the current national systems and valorize such systems in the monitoring of the health of the European region, including health impact by chemical pollutants and secondary microbial diseases; (c) to provide guidance on preventive

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<sup>1</sup> The WHO Guidance Document *Managing Water in the Home* available from [http://www.who.int/water\\_sanitation\\_health/Documents/WSH0207/managingwater.htm](http://www.who.int/water_sanitation_health/Documents/WSH0207/managingwater.htm) is currently being translated in Russian.

measures, particularly breast feeding and promotion of the child-friendly hospital; (d) to provide appropriate training to health-care-personnel on simple, in-house water treatment techniques including urban areas where water supply systems are deficient and, in particular, to promote the work of the International Network to Promote Safe Household Water Treatment and Storage, especially in areas with high infant mortality; (e) to cooperate with the International Council of Nursing in the development of training programmes for health care workers on in-house water treatment; (f) to provide training on Oral Rehydration Therapy, in compositions adapted to the specificity of each of the EURO sub-regions; and (g) to expand the work of the International Network to Promote Safe Household Water Treatment and Storage, especially in areas with high infant mortality.

39. The targets of the proposed component of CEHAP relates directly to the Target 5 of the Millennium Declaration to reduce by two-thirds, between 1990 and 2015, the under-five mortality rate.

### **C. Vector-borne diseases**

40. The objectives are to improve contingency planning for outbreak of vector-borne diseases at a sub-regional basis as opposed to the current bilateral approach, targeting in particular malaria, but not necessarily excluding other vector-borne diseases, such as blood sucking insects.

41. Actions to be taken are to strengthen the Roll-Back-Malaria-Programme in the European region, particularly through the introduction of graphic tools for monitoring ecosystem development and vector population ecology.

42. The targets of the proposed component of CEHAP relates directly to Target 8 of the Millennium goals, i.e. to contribute to halting permanently, and starting to reverse permanently, the scourge of malaria and other major diseases, including blood sucking insects, on a regional level.

### **D. Water scarce diseases**

43. The objectives are to strengthen surveillance techniques for undertaken detailed evaluations of water- and sanitation-related hygiene practices in accordance with the guidelines of the UNICEF, ODA, and others to assess the actual burden of disease caused by parasites

44. Actions to be taken include; (a) to implement in depth assessments of water- and sanitation-related hygiene practices in countries with a considerable burden of parasitic diseases; (b) to implement appropriate hygiene awareness programmes in such countries; and (c) to implement sanitation improvements, including dry sanitation where appropriate.

45. The target of the proposed component of CEHAP relates directly to Target 11 of the Millennium goals, i.e. to contribute by 2020, to a significant improvement in the lives of slum dwellers, particularly to children going to school in slum areas.

## V. CONSTRAINTS

46. Besides constraints related to the logistic support for the Protocol, detailed under the different sections of chapter III, constraints remain in the development of a permanent coordination mechanism, and in the creation of a sustainable joint secretariat.

47. The Signatories to the Protocol have drawn up a programme of work following article 16 of the Protocol. The participation on programme implementation is still limited as only half of the Signatories-countries participate. Modalities for the participation of competent international governmental and non-governmental bodies in all meetings and other activities pertinent to the achievement of the purposes of the Protocol are also to be developed.

48. Article 17 of the Protocol stipulates that the Executive Secretary of the Economic Commission for Europe and the Regional Director of the Regional Office for Europe of the World Health Organization shall carry out the following functions for this Protocol:

- The convening and preparing of meeting of the Parties;
- The transmission to the Parties of reports and other information received in accordance with the provisions of this Protocol;
- The performance of such other functions as may be determined by the Meeting of the Parties on the basis of available resources.

49. The joint secretariat still needs to benefit from a permanent structure within the host organizations and sufficient financial resources to carry out its obligations and secure the participation of eligible countries in meetings.

## VI. RELATED ACTIVITIES

50. Following the catastrophic cross-border pollution in the Tisza River basin, caused by the January 2000 accidents at Baia Mare (Romania), the Parties to the Convention on Protection and Use of Transboundary Water Courses and International Lakes and the Parties to the Convention on the Transboundary Effects of Industrial Accidents started in mid-2001 an intergovernmental negotiation process to draw up a legally binding instrument. These negotiations came to a successful conclusion on 27 February 2003 with the finalization of the draft "Protocol on Civil Liability and Compensation for Damage Caused by the Transboundary Effects of Industrial Accidents on Transboundary Waters". The Protocol was formally adopted at the second joint special session of the governing bodies of both Conventions convened on the occasion of the Ministerial "Environment for Europe" Conference in Kiev (21-23 May 2003) on 21 May 2003, and signed on the same day by 22 countries. The Protocol remains open for signature in New York until 31 December 2003. Governments, the private sector – including industry and insurance – intergovernmental and non-governmental organization participated in the negotiations.

51. The civil liability protocol not only supplements the above two Conventions. It strongly helps implementing provisions of the Protocol on Water and Health, particularly those linked to response systems. With the adoption of the Civil Liability Protocol, the countries also comply with the important call for action raised at the 2000 extraordinary meeting of the European Environment and Health Committee (EEHC).

52. Further information is available at: <http://www.unece.org/env/civil-liability/welcome.html>