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**A MODERN APPROACH TO WATER MANAGEMENT:
THE UNECE PROTOCOL ON WATER AND HEALTH**

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BACKGROUND

Even though most Europeans take clean water for granted nowadays, an estimated 140 million people, that is one person in seven, do not have access to safe drinking water and adequate sanitation in the UNECE region, making them vulnerable to water-related diseases. Cholera, bacillary dysentery, typhoid fever, hepatitis A and malaria are water-related diseases often associated with developing countries, some of them perhaps with medieval Europe. Yet at the beginning of the third millennium, lack of access to safe drinking water, poor sanitation and inadequate management practices are at the root of these diseases and they still threaten the health of millions of people, most prominently in countries in Eastern Europe, the Caucasus and Central Asia. Of the roughly 877 million people in Europe and Central Asia, almost 140 million (16 per cent) do not have a household connection to a drinking-water supply, 85 million (10 per cent) do not have improved sanitation and over 41 million (5 per cent) do not have access to a safe drinking-water supply. The situation is, if possible, even more tragic as overall access to safe water and sanitation has not improved over the last 15 years. With an average of 45.6 per cent of the rural population lacking access to improved sanitation, the conditions in a group of countries – including Albania, Armenia, Azerbaijan, Bosnia and Herzegovina, Bulgaria, Georgia, Kyrgyzstan, Tajikistan, the former Yugoslav Republic of Macedonia, Turkmenistan and Uzbekistan – are comparable to those in North Africa, where an average of 43 per cent of the population lack access. With 59.2 per cent of the rural population lacking access to a household drinking-water connection, the conditions are comparable to the situation in Latin America and the Caribbean (58 per cent). And a recent estimate of mortality from diarrhoeal disease attributable to poor water, sanitation and hygiene, showed that 13,500 deaths a year of children under 14 years of age in Europe and Central Asia are due to poor water conditions. The largest contribution to this burden, with over 11,000 deaths, comes from the countries mentioned above.

But also in the western part of the region, emerging diseases are increasingly being recognised as a serious health threat and require significant efforts to bring them under control. Examples are protozoan infestations of drinking-water supply systems, proliferation of *Legionella* in cooling towers, and a host of potential health problems related to the increasingly complex chemical environment. Thus, while efforts are needed in countries with economies in transition in dealing with well known health concerns for which solutions are available, efforts must also be made in Western Europe to strengthen the fight against new and emerging threats to health.

The Protocol on Water and Health to the Convention on the Protection and Use of Transboundary Watercourses and International Lakes was negotiated to address these issues. The Protocol was adopted at the third Ministerial Conference on Environment and Health, London, 1999. It entered into force in August 2005 and to date has been ratified by 21 countries.¹

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OBJECTIVE

The objective of the Protocol (Article. 1) is to promote at all appropriate levels, nationally as well as in transboundary and international contexts, the protection of human health and well-being, both individual and collective, within a framework of sustainable development, through improving water management, including the protection of water ecosystems, and through preventing, controlling and reducing water-related disease.

The Protocol is thus unique among multilateral environmental agreements in the extent to which its objectives crosscut environmental protection and human health and well-being.

¹ Countries that have ratified the protocol are Albania, Azerbaijan, Belgium, Croatia, the Czech Republic, Estonia, Finland, France, Germany, Hungary, Latvia, Lithuania, Luxembourg, Moldova, Norway, Portugal, Romania, the Russian Federation, Slovakia, Switzerland and Ukraine.

This is also reflected in the unique arrangement for secretariat services to the Protocol, which are jointly carried out by the Regional Office for Europe of the World Health Organisation and the United Nations Economic Commission for Europe.

3 SCOPE

The Protocol covers surface freshwater, groundwater, estuaries, coastal waters which are used for recreation, for the production of fish by aquaculture or for the production or harvesting of shellfish, enclosed waters generally available for bathing, water in the course of abstraction, transport, treatment or supply, and waste water throughout the course of collection, transport, treatment and discharge or reuse.

4 GENERAL PROVISIONS

Under Article 4 of the Protocol, Parties have a series of general obligations related to:

- The prevention, control and reduction of water-related disease within a framework of integrated water-management systems aimed at sustainable use of water resources, ambient water quality which does not endanger human health, and protection of water ecosystems;
- The provision of adequate supplies of wholesome drinking water, including the protection of water resources which are used as sources of drinking water, treatment of water and the establishment, improvement and maintenance of collective systems;

- The provision of adequate sanitation of a standard which sufficiently protects human health and the environment;
- Effective protection of water resources used as sources of drinking water, and their related water ecosystems, from pollution from other causes, including agriculture, industry and other discharges and emissions of hazardous substances;
- Sufficient safeguards for human health against water-related disease arising from the use of water for recreational purposes, from the use of water for aquaculture, from the water in which shellfish are produced or from which they are harvested, from the use of waste water for irrigation or from the use of sewage sludge in agriculture or aquaculture;
- Effective systems for monitoring situations likely to result in outbreaks or incidents of water-related disease and for responding to such outbreaks and incidents and to the risk of them.

5 PRINCIPLES AND APPROACHES

Article 5 sets principles and approaches which shall guide Parties' action:

- (a) The precautionary principle;
- (b) The polluter-pays principle;
- (c) States have, in accordance with the Charter of the United Nations and the principles of international law, the sovereign right to exploit their own resources pursuant to their own environmental and developmental policies, and the responsibility to ensure that activities within their jurisdiction or control do not cause damage to the environment of other States or of areas beyond the limits of national jurisdiction;

- (d) Water resources shall be managed so that the needs of the present generation are met without compromising the ability of future generations to meet their own needs;
- (e) Preventive action should be taken to avoid outbreaks and incidents of water-related disease and to protect water resources used as sources of drinking water;
- (f) Action to manage water resources should be taken at the lowest appropriate administrative level;
- (g) Water has social, economic and environmental values and should therefore be managed so as to realise the most acceptable and sustainable combination of those values;
- (h) Efficient use of water should be promoted through economic instruments and awareness-building;
- (i) Access to information and public participation in decision-making concerning water and health are needed to build public awareness of issues, to give the public the opportunity to express its concerns and to enable public authorities to take due account of such concerns. Such access and participation should be supplemented by appropriate access to judicial and administrative review of relevant decisions;
- (j) Water resources should, as far as possible, be managed in an integrated manner on the basis of catchment areas, with the aims of linking social and economic development to the protection of natural ecosystems and of relating water-resource management to regulatory measures concerning other environmental mediums. Such an integrated approach should apply across the whole of a catchment area, whether transboundary or not, including its associated coastal waters, the whole of a groundwater aquifer or the relevant parts of such a catchment area or groundwater aquifer;
- (k) Special consideration should be given to the protection of people who are particularly vulnerable to water-related disease;
- (l) Equitable access to water, adequate in terms both of quantity and of quality, should be provided for all members of the population, especially those who suffer a disadvantage or social exclusion;
- (m) As a counterpart to their rights and entitlements to water under private law and public law, natural and legal persons and institutions, whether in the public sector or the private sector, should contribute to the protection of the water environment and the conservation of water resources; and
- (n) In implementing this Protocol, due account should be given to local problems, needs and knowledge.

6

TARGETS AND TARGET DATES

With its objectives of:

- (a) Access to drinking water for everyone and
- (b) Provision of sanitation for everyone, the Protocol offers a platform to go beyond Millenium Development Goals 7, target 10 (halve the proportion of people without sustainable access to safe drinking-water and basic sanitation by 2015) and provides a useful framework for implementing the human right to water.

A major strength of the Protocol relies in the provision of details and clear indications for its implementation, which at the same time allow taking into account differences in health, environmental and economic conditions in the region.

Indeed, under Article 6, the Protocol requires Parties to establish targets in a certain number of areas, including:

- (a) The quality of the drinking water supplied;
- (b) The reduction of the scale of outbreaks and incidents of water related disease;
- (c) Improved access to drinking water;
- (d) Improved access to sanitation;
- (e) The levels of performance to be achieved by collective systems and other means of water supply and sanitation;
- (f) The application of recognised good practice to the management of water supply and sanitation, including the protection of waters used as sources for drinking water;
- (g) The occurrence of discharges of: (i) untreated waste water; and (ii) untreated storm water overflows from waste-water collection systems;
- (h) The quality of discharges of waste water from waste-water treatment installations;
- (i) The disposal or reuse of sewage sludge and the quality of waste water used for irrigation purposes;
- (j) The quality of waters which are used as sources for drinking water, for bathing, for aquaculture or for the production or harvesting of shellfish;
- (k) The application of recognised good practice to the management of enclosed waters generally available for bathing;
- (l) The identification and remediation of particularly contaminated sites which adversely affect waters and which thus threaten to give rise to water-related disease;
- (m) The effectiveness of systems for the management, development, protection and use

of water resources, including the application of recognised good practice to the control of pollution from sources of all kinds;

- (n) The frequency of the publication of information on the quality of the drinking water supplied and of other waters.

It should be noted that targets can be set at the national and/or local levels, that they shall be periodically revised and that in doing all this, Parties shall make appropriate practical and/or other provisions for public participation, within a transparent and fair framework, and shall ensure that due account is taken of the outcome of the public participation.

The Protocol does not require the setting of targets which are irrelevant for preventing, controlling and reducing water-related disease. At the same time, Parties can set targets in other areas than those specified in the Protocol.

Each Party shall establish and publish targets and target dates for achieving them within two years of becoming a Party. Therefore for the first sixteen countries that ratified the Protocol,² the deadline is August 2007. Preliminary information provided by Parties on the occasion of their first meeting (Geneva, 17 to 19 January 2007) shows that most Parties are currently undergoing the process of setting targets and target dates.

7

REVIEW AND ASSESSMENT OF PROGRESS

Moreover, Parties shall collect and evaluate data on their progress towards the achievement of the targets and on indicators that are designed to show how far that progress has contributed towards preventing, controlling or reducing water-related disease.

² For the status of ratification of the Protocol, see http://www.unece.org/env/water/status/lega_wh.htm.

The Parties shall each publish periodically the results of this collection and evaluation of data. At their first meeting, Parties decided that such results should be published every three years.

On the basis of this collection and evaluation of data, each Party shall review the progress made in achieving the targets set, and publish an assessment of that progress. Such reviews shall also be done every three years. Such exercises shall include a review of the targets set, with a view to improving the targets in the light of scientific and technical knowledge.

Each Party shall provide to the Secretariat, for circulation to the other Parties, a summary report of the data collected and evaluated and the assessment of the progress achieved.

As such reports shall be in accordance with guidelines established by the Meeting of the Parties, one of the activities to be carried out under the ongoing programme of work for 2007–2010 is the development of these guidelines for adoption at the second meeting. Preliminary guidelines were discussed at the first meeting of the Parties; these include a set of indicators for water supply and sanitation and reduction of water related diseases. Further work in the next years will focus on indicators for water management and other areas. To test the guidelines before their formal adoption at the second meeting, Parties also agreed to carry out a 'test' reporting exercise to be completed by the end of 2008.

8

REVIEW OF COMPLIANCE

Article 15 of the Protocol requests Parties to review their compliance with the provisions of the Protocol on the basis of the reviews and assessments carried out under Article 7. As required by the Protocol, Parties at their first meeting adopted a decision establishing a multilateral arrangement of a non-confrontational, non-judicial and consultative nature for reviewing compliance.

The established Compliance Committee consists of nine members, who shall serve in their personal capacity and objectively in the best interests of the Protocol.

The Committee performs general tasks in relation to the monitor of compliance and prepares, at the request of the Meeting of the Parties, a report on compliance with or implementation of specific provisions of the Protocol.

But the most important task of the Committee is to consider issues of non-compliance by specific Parties. Such issues can be brought to the attention of the Committee through three trigger mechanisms:

- (a) Submission by a Party having reservations on another Party's compliance (party-to-party trigger) or concluding that despite its efforts is itself unable to comply with the Protocol (self-trigger);
- (b) Referrals by the Secretariat based on reports submitted by Parties;
- (c) Communications from the public which are admissible according to the compliance procedure criteria.

At the same time, the broad provision on the Committee's power 'to examine compliance issues and make recommendations if and as appropriate' indicate that the Committee may also act *proprio motu*.

The compliance procedure provides for two kinds of measures:

- (a) Measures which may be directly taken by the Compliance Committee itself and are essentially of facilitative nature. These include provision of advice and facilitation of assistance to individual Parties regarding their compliance with the Protocol; requesting and/or assisting the Party concerned to develop an action plan to achieve compliance with the Protocol within a time frame to be agreed upon by the Committee and the Party concerned; inviting the Party concerned to

submit progress reports to the Committee on the efforts that it is making to comply with its obligations under the Protocol; and in cases of communications from the public, recommendations to the Party concerned on specific measures to address the matter raised by the member of the public. The Committee is also afforded with the power to issue cautions.

- (b) Measures which are the competence of the Meeting of the Parties. These include all the measures which can be taken by the Committee, some other facilitative measures related to financial and technical assistance, training, other capacity-building measures and technology transfer, as well as some 'stronger' measures including issuance of declarations of non-compliance, the decision to give special publicity to cases of non-compliance; and the suspension of rights and privileges accorded to the Party concerned, in accordance with the applicable rules of international law.

The division of competence between the two bodies meets the need to ensure a prompt response to non-compliance that would prove difficult if left within the exclusive competence of the Meeting of the Parties which meets every three years.

9

INTERNATIONAL COOPERATION AND INTERNATIONAL SUPPORT

Another prominent feature of the Protocols are the provisions on international cooperation (Article 11), joint and coordinated international action (Article 12), cooperation in relation to transboundary waters (Article 13) and international support for national action (Article 14). These require Parties to cooperate and assist each other in the implementation of the Protocol.

Coordinated international action shall ensure the harmonised development of commonly agreed

targets and indicators. To this aim the Parties have established at their first meeting a Task Force on Indicators and Reporting. Moreover Parties shall coordinate and assist each other in relation to the surveillance and early-warning systems, contingency plans and response capacities, as well as mutually assist each other in responding to outbreaks and incidents of water-related disease, including the development of integrated information systems and databases, exchange of information and sharing of technical and legal knowledge and experience and prompt and clear notification mechanisms.

In addition, Parties bordering the same transboundary waters shall cooperate and assist each other to prevent, control and reduce transboundary effects of water-related disease. In particular, they shall: exchange information and share knowledge about the transboundary waters and the problems and risks which they present; endeavour to establish joint or coordinated water-management plans in and surveillance and early-warning systems and contingency plans for the purpose of responding to outbreaks and incidents of water-related disease, especially from water pollution incidents or extreme weather events.

The Protocol also requires Parties to cooperate and assist each other in the implementation of national and local plans. Such assistance includes:

- (a) The preparation of water-management plans in transboundary, national and/or local contexts, and of schemes for improving water supply and sanitation;
- (b) The improved formulation of projects, especially infrastructure projects, in order to facilitate access to sources of finance;
- (c) The effective execution of such projects;
- (d) The establishment of systems for surveillance and early-warning systems, contingency plans and response capacities in relation to water related disease;
- (e) The preparation of legislation needed to support the implementation of the Protocol;

- (f) Education and training;
- (g) Research into, and development of, cost-effective means and techniques for preventing, controlling and reducing water-related disease;
- (h) Operation of effective networks to monitor and assess the provision and quality of water-related services, and development of integrated information systems and databases;
- (i) Achievement of quality assurance for monitoring activities, including inter-laboratory comparability.

As lack of resources for interventions in the areas of the Protocol often hamper global and national efforts in low and middle-income countries, the need for strategic planning of investments, review of the effectiveness of investments and coordination among donors is obvious. For the effective implementation of Article 14 on international support for national action, Parties decided at their first meeting to establish an Ad Hoc Project Facilitation Mechanism for assistance to countries in Eastern Europe, Caucasus and Central Asia (EECCA) and South-Eastern Europe (SEE). The Ad Hoc Project Facilitation Mechanism is composed of two elements: a facilitator and a clearing house mechanism.

The facilitator's role is to identify strategic areas of international assistance related to water and health, to review and analyse project proposals submitted by EECCA and SEE countries and relevant NGOs, and to assist EECCA and SEE countries and relevant NGOs in drawing up project proposals and helping them to streamline these proposals to meet the requirements of donor countries and organisations, for submission to the Ad Hoc Project Clearing House.

The Ad Hoc Project Clearing House is an open-ended body under the Meeting of the Parties with members from Parties and non-Parties (both from donor and recipient countries) and from global and regional financing institutions, relevant international organisations, competent international non-governmental organisations and international

foundations with cooperation programmes of recognised importance for water and health. The objective of the Ad Hoc Project Clearing House is to identify priority activities of non-infrastructure intervention for countries with economies in transition in the following areas:

- Health-related aspects of integrated water resources management;
- Safe drinking-water supply and adequate sanitation;
- Reduction of childhood morbidity and mortality;
- Meeting the water needs of vulnerable groups;
- Gender issues related to water supply and sanitation.

To this aim, the Ad Hoc Project Clearing House will assess the relevance of project proposals submitted through the Facilitator and make suggestions for matching donors' assistance with such proposals. The Ad Hoc Project Clearing House will also advocate funding of the proposals, but financing of proposals will be on a voluntary basis.

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OTHER PROVISIONS AND OTHER ACTIVITIES UNDER THE PROGRAMME OF WORK 2007-2010

The Protocol includes a number of other provisions on response systems to outbreaks, incidents and risks of water related diseases (Article 8), public awareness, education, training, research and development and information (Article 9) and public information (Article 10). Specific activities to support implementation of these articles are included in the programme of work for 2007–2010 adopted at the first meeting of the Parties.

A noteworthy activity is related to equitable access to drinking water and aims to promote the implementation of the Protocol in relation to facilitating access to water and sanitation for poor, vulnerable and socially excluded people through information exchange on relevant experience in UNECE countries related to: (a) targeted measures to overcome water affordability issues; and (b) solidarity measures to improve access to water and sanitation, especially in rural areas. On the basis of the current experience, a document on good practices to enhance solidarity will be prepared for consideration by the Parties at their second meeting.

This activity aims to support the implementation of the provisions of the Protocol on non-discrimination and equity, which are crucial for the implementation of the human right to water. For these requirements, together with the other aspects highlighted above, the Protocol is seen as a useful framework to put the human right to water into practice.

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