



SUPPORTING
BRIEFING

Water Scarcity

ENVIRONMENT FOR
EUROPE MINISTERIAL
CONFERENCE, ASTANA,
KAZAKHSTAN

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Summary

A major theme of the Astana conference is 'sustainable management of water and water-related ecosystems'. Assessments under the UNECE Water Convention have shown major challenges for effective management of water resources in European Neighbourhood Countries. Support for integrated water resources management is provided through the EU Water Initiative and the conference seeks to stimulate further improvements in water governance and enhanced efficiency of water use, including specific actions detailed in the UN's 'Astana Water Action'.

1 INTRODUCTION

The United Nations Economic Commission for Europe (UNECE) established the 'Environment for Europe' process to address environmental issues of common concern across the continent of Europe. The seventh Environment for Europe Ministerial Conference will be held in Astana, Kazakhstan, from 21-23 September 2011. The conference has two main themes: 'sustainable management of water and water-related ecosystems'; and 'greening the economy: mainstreaming the environment into economic development'.

The main briefing on water scarcity has strong relevance to the first of the conference themes. This supporting briefing written by Andrew Farmer of IEEP provides background information covering:

- The role of the UNECE on water scarcity issues.
- The EU's supporting role for addressing water scarcity in neighbourhood countries within the UNECE region.
- Proposals for outcomes of the Astana conference.

2 THE UNECE AND WATER SCARCITY

2.1 The UNECE Water Convention, Helsinki, 17 March 1992

The main instrument under the UNECE to address water issues is the Convention on the Protection and Use of Transboundary Watercourses and International Lakes (UNECE Water Convention), which establishes a framework for bilateral or multilateral cooperation to protect the aquatic environment, to prevent and control the pollution of transboundary watercourses and to ensure the rational and equitable use of water resources in the UNECE member countries. The Convention entered into force on 6 October 1996 (36 UNECE countries and the European Community have ratified it). Much of the implementation of the Convention now draws on the guidance and best practice developed under the EU Water Framework Directive.

The UNECE region encompasses all of continental Europe and the states of the former Soviet Union. Transboundary water resources are important for much of the region. More than 150 major rivers and 50 large lakes in the region run along or straddle the border between two or more countries. Twenty countries depend on neighbouring countries for more than 10% of their water resources and five countries draw 75% of their resources from upstream countries. Since the major enlargements of the EU in 2004 and 2006, the work of the Convention has focused significantly on, what are now, European Neighbourhood Partnership (ENP) countries and Russia.

Water scarcity raises serious security concerns, particularly in Central Asia. A 2011 UNEP assessment¹ concluded that current severe droughts 'strain relations among and within riparian states'. However, with climate change, increased variability of precipitation and higher temperatures will 'probably lead to a reduction in overall water availability, which in turn could affect the agricultural and energy security [...] These effects would be compounded by problems of increasing soil salinity and land degradation related to outdated irrigation techniques'. To address this, UNEP concludes that 'dialogue over a common framework for managing water and energy is important' and that 'priority should be given to improving water management for irrigation' and that this 'could require complete restructuring of the irrigation sector' to become embedded within 'a fully catchment-based irrigation management and governance', alongside full modernisation of irrigation methods and techniques 'to mobilize substantial water saving potential at the farm and plot level'.

The UN has raised concerns over the capacity of many ENP countries to tackle water scarcity issues². Although there has been progress in establishing transboundary agreements and bodies to support these, many lack sufficient capacity or authority and national water management structures are insufficient. In particular, the UN noted the following problems:

- Lack of adequate powers to implement integrated water resources management.
- Incomplete representation of national authorities in transnational bodies, including representatives

from environment, fishery, health, energy, hydrometeorology authorities, economy and finance ministries.

- Poor implementation of decisions due to the lack of resources, insufficient motivation, inadequate representation, and lack of coordination.
- Lack of financial means for implementation of joint programmes.
- Absence of executive and working organs, e.g. secretariats in many joint bodies, which leads to interruptions in activities and poor coordination.
- Lack of mechanisms for public participation and stakeholder involvement.
- Lack of requirements for regular reporting.

3 THE EU'S ROLE IN NEIGHBOURHOOD COUNTRIES WITHIN THE UNECE REGION

The EU Water Initiative (EUWI)³ was launched at the 2002 WSSD in Johannesburg. Its aim is to co-ordinate the financial support policies of the Member States towards water development projects in third countries (as well as the EU's own support projects within the EU Water Facility launched in 2004).

The Eastern Europe, the Caucasus and Central Asia (EECCA) component focuses on two main areas – water supply and sanitation, including financing of water infrastructure, and integrated water resources management. The objectives of the EECCA component are to:

- Improve the institutional and regulatory framework.
- Ensure financial viability of utilities.
- Ensure investment in water supply, sanitation and rehabilitation.
- Ensure access of the poor to water services as a basic human right.
- Safeguard public health.
- Protect the environment.

- Establish and implement national policies for integrated water resource management.
- Develop the inter-state co-operative structures for river/lake basin management.

Most of the work of the EECCA component is taken forward through National Policy Dialogues. These aim to develop country-specific activities concerning water supply and sanitation and integrated water resources management and involve high-level representatives of the key partners in the country – governmental and non-governmental. Each National Policy Dialogue builds on existing policy frameworks, such as the UNECE/WHO Protocol on Water and Health⁴, and results in a policy package addressing the identified issues. National Policy Dialogues have been launched in Armenia (2006), Georgia (2007), Kyrgyzstan (2008), Moldova (2006) and Ukraine (2008); they are all ongoing. Policy dialogues have also been explored for Azerbaijan, Georgia, Tajikistan, Turkmenistan and Uzbekistan.

4 THE ASTANA CONFERENCE

4.1 Introduction

In preparation for the Astana conference, the Bureau of the Water Convention has produced the "Astana Water Action"⁵ as a collection of possible actions for improving the status of water and water-related ecosystems through their sustainable management. Furthermore, a draft Ministerial Declaration has been produced for the conference, linked to the "Astana Water Action". These are summarised below.

4.2 Astana Water Action

The initiative is an invitation to Governments and other stakeholders to commit on a voluntary basis to implement some specific actions. Due to the different situations in countries of the UNECE region in terms of the status and management of their water and water-related ecosystems, the actions in the "Astana Water Action" are not ranked or evaluated in a systematic way. The initiative builds on analysis provided by the UNECE on the 'Sustainable management of water and water-related ecosystems'⁶.

The actions include measures for a more effective valuation and protection of water-related ecosystems; policies and measures to address human health issues related to water quality and quantity; priority actions for adapting water management to extreme weather events and to climate change; recommendations for improving transboundary water management and for increasing water efficiency by different users and finally ways to encourage investments to take into account the impacts on water quantity and water quality, energy and resource efficiency and vulnerable populations.

With regard to water management for scarcity, key proposed actions include actions to:

- Develop integrated water resources management plans for basins with action programmes, with prioritized initiatives and estimated costs and sources of finance, taking into account present and future water demands.
- Integrate water resources management into the national climate change adaptation strategy and integrate water-related disaster risk reduction into national development plans.
- Improve the institutional arrangements for water allocation.
- Integrate land-use planning, flood and drought risk management.
- Implement sustainable abstraction of ground and surface waters, based on permits.
- Continue funding and implementing National Policy Dialogues on integrated water resources management within the EU Water Initiative.
- Introduce/review information and the tools to facilitate rainwater infiltration, harvesting and reuse in urban and rural areas.
- Develop vulnerability assessments and mapping of expected climate change impacts; and exchange data at transboundary level as a basis for decision-making.

On specific tools, with regard to scarcity issues, key proposed actions include:

- Create and support water user associations to manage water demand locally.
- Require water metering of all water users.
- Increase water-use efficiency in buildings through building standards/codes.
- Reduce leakages in water distribution systems.
- Promote rainwater harvesting on the household and agricultural levels.
- Encourage reuse of treated wastewater in agriculture.
- Adapt agriculture to the local climate and water availability, including growing less water-consuming crops.
- Modernise irrigation and drainage systems to enable sustainable water and land use.
- Improve water accounting in the agricultural sector, such as through metering and water volume payment systems, if needed with some state support for equipment.
- Develop public-private partnerships for increasing the efficiency and productivity of water use in industry and in agriculture, as well as its reuse and use life-cycle assessment for assessing the water footprint of products.

4.3 The draft Ministerial Declaration

The draft Ministerial Declaration for the conference⁷ is entitled “Save water, grow green!”. Key extracts from the draft Declaration relevant to this briefing include:

- Although water management has improved in the past 20 years in many subregions, numerous pressures remain and progress has often been weak regarding access to safe water and sanitation, especially in rural areas, in particular in EECCA countries.
- Many countries have a continuing decline in water-related ecosystems and their services and improvements to institutional frameworks for water management need to be undertaken.

- Riparian countries are encouraged to undertake and implement agreements on transboundary waters, to strengthen the institutional frameworks and to develop strategies including on environment and security issues and for adapting their water management to extreme events and climate change
- There should be improvement of water systems and policies, and intersectoral cooperation, including National Policy Dialogues on Integrated Water Resources Management and integration of ecosystem values in economic accounting.
- Ministers should invite countries to ratify and implement relevant multilateral environmental agreements, including the UNECE Convention on the Protection and Use of Transboundary Watercourses and International Lakes and strengthen agreements for transboundary waters.
- Additional financial resources need to be mobilized for investments for improvement in the water sector, including for more efficient irrigation systems.
- There should be more systematic use of economic instruments, including payment for ecosystem services, the provision of incentives for water efficiency and the generation of revenues to finance water services aiming at full cost recovery prices for water, while making adequate provisions for vulnerable social groups.
- There is a need for enhanced donor coordination.
- Countries are invited to implement the Astana Water Action and to report progress to the Committee on Environmental Policy.

Finally, it is important to note that the second main theme of the Astana meeting is the 'green economy'. This, itself, has a strong bearing on water issues and further examination of this issue is provided by two UNEP publications^{8,9}.

5 USEFUL WEBSITES

- UNECE Water Convention: <http://www.unece.org/env/water/welcome.html>
- EU Water Initiative: <http://www.euwi.net/>
- Environment for Europe, Astana meeting: <http://www.unece.org/env/efe/Astana/welcome.html>
- Amu Darya Basin Network: <http://www.amudaryabasin.net>
- Central Asia Regional Water Information Base: http://www.cawater-info.net/index_e.htm

6 REFERENCES

- ¹ UNEP 2011. Environment and Security in the Amu Darya Basin. <http://www.envsec.org/publications/AmuDarya-EN-Web.pdf>
- ² UN 2009 Capacity for Water Cooperation in Eastern Europe, Caucasus and Central Asia.
- ³ For information on the EUWI, visit the EUWI webpage, <http://www.euwi.net>
- ⁴ More information is available here: http://live.unece.org/env/water/publications/brochures_protocol.html
- ⁵ <http://www.unece.org/env/documents/2011/ece/cep/ece.cep.s.2011.l.4.e.pdf>
- ⁶ Sustainable management of water and water-related ecosystems. UNECE 7 July 2011. <http://www.unece.org/env/documents/2011/ece/ece.astana.conf.2011.3.e.pdf>
- ⁷ <http://www.unece.org/env/documents/2011/ece/ece.astana.conf.2011.l.1.e.pdf>
- ⁸ http://www.unep.org/greeneconomy/Portals/88/documents/ger/GER_water_chapter_25082011.pdf
- ⁹ <http://www.unep.ch/etb/ebulletin/pdf/GE%20and%20Water%20Brief.pdf>



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