Chair’s summary

There is considerable diversity between sub-regions of UNECE in the range of freshwater challenges. Overall, the region is lagging behind in the achievement of SDG 6. This hampers the achievement of many other goals and targets of the 2030 Agenda for Sustainable Development.

While the COVID-19 pandemic and its economic and social consequences have focused attention on the importance of access to water, sanitation and hygiene, they have also hampered progress. Moreover, the war in Ukraine and the unfolding multi-faceted humanitarian-environmental-economic crises threaten further detrimental consequences for regional efforts to achieve the 2030 Agenda.

Political will is needed more than ever to accelerate progress towards SDG6. To achieve SDG6 and the 2030 Agenda, we must change water from a “deal breaker” to a “deal maker.” The United Nations 2023 Water Conference is an important opportunity to catalyse action by all actors, building upon the outcome of this regional preparatory meeting, and other events including the Bonn Water Dialogues for Results 2021, and the upcoming seventh session of the Global Platform for Disaster Risk Reduction (Bali, 23–28 May 2022), the Second Dushanbe Water Decade Conference (Dushanbe, 6 – 9 June 2022), the United Nations Ocean Conference (Lisbon, 27 June – 1 July 2022) and the UN-Water Groundwater Summit (Paris, 7–8 December 2022). The UNECE region has a strong contribution to make to shape the 2023 UN Water Conference programme, inputs and outputs.

Making drinking water and sanitation available, safe and affordable for all

Trends and challenges

While most Europeans take clean drinking water for granted, in the UNECE region, about 175 million people still do not have access to safely managed drinking-water services, around 245 million people lack access to safely managed sanitation facilities¹ and 140 thousand practice open defecation, making them vulnerable to water-related diseases. Annually, 2,700 people in the region die from WASH-related
diseases.

¹ Based on WHO-UNICEF-JMP data (https://washdata.org/data/household#!/) available for 53 UNECE Member States for access to safely managed drinking-water services and for 48 UNECE Member States for access to safely managed sanitation facilities.
diarrheal diseases. Making progress is this area is key for human health and well-being – including preparedness and response to possible future pandemics – socio-economic development and human dignity.

Despite the overall progress at the regional level, there are marked disparities between urban and rural areas, problems of affordability and of access by vulnerable groups and in settings such as schools, hospitals and workplaces.

**Good practices and actions needed**

Strong institutional and governance frameworks, which integrate across water and health and foresee effective mechanism for public information and public participation, are key to make drinking water and sanitation available, safe and affordable for all. The Protocol on Water and Health, jointly serviced by UNECE and WHO-Europe, and its many tools, are effective to strengthen national governance for implementing SDG 6 and the human rights to water and sanitation. EU legislation has significantly driven progress in the region, including in many non-EU countries.

A risk-based approach, such as water or sanitation safety plans, coupled with strong monitoring and surveillance are key to protect human health and the environment.

Significant investments in water and sanitation infrastructures, and in general on sustainable water resources management, are needed. Such investments need to be climate smart and promote sustainable and circular economy approaches. For instances, nature-based solutions represent effective and affordable approaches for increasing access to safe sanitation in sparsely populated rural areas.

Moreover, policies and investments need to focus on flattening inequalities between urban and rural areas, as well as inequalities linked to affordability and to access by vulnerable groups and in settings such as schools, hospitals and workplaces.

**Tackling water pollution, conservation of ecosystems and biodiversity and application of circular economy policies**

**Trends and challenges**

Thanks to advances in wastewater treatment, point source water pollution has decreased overall across the region. However, diffuse pollution and wastewater discharges remain significant in many countries. Persistent organic pollutants are also of great public health concern.

Plastic pollution, both macro, micro and nano plastics, is a common concern for freshwaters and seas.

Freshwater ecosystems and biodiversity in the region are threatened, including by flow alteration from, for example, dams and embankments, as well as impacts of climate change.

The fast development of the mining sector, also driven by the growing demand for clean energy technologies and digitalisation of economic sectors, represent additional pollution risks when not coupled with strong policies and enforcement mechanisms.

**Good practices and actions needed**

Improving water quality and protecting ecosystems and biodiversity require concerted action. Progress in these areas has been achieved, also thanks to the EU Water Framework Directive and other EU directives, such as the Groundwater Directive and the Urban Wastewater Treatment Directive. The EU Green Deal and its different strategies and action plans, provide a powerful framework for improving
the quality (and availability) of water resources and their sustainable management and offer significant potential for investments in water-related projects.

Action has to focus on preventing pollution at source, including by increasing the safety of industrial installations to prevent the risks of accidental water pollution, and strengthening early warning systems. The guidance provided under the Water Convention and the Convention on the Transboundary Effects of Industrial Accidents proves useful.

It is key to link water policies to circular economy approaches. Adequate policies supporting wastewater and nutrient reuse in agriculture and industry – while ensuring its safety - bring substantial economic benefits and help addressing water scarcity, while protecting the environment. It is important that such policies embed a risk-based approach, effective system of compliance and public information and education measures that enhance their public acceptance. However, the availability of appropriate and economically viable technological solutions and the inadequate capacity of operators can still represent a challenge. The private sector has an important role to play in applying circular economy approaches but needs clear regulatory framework and economic incentives.

There is a need for further research in this area – e.g. in relation to emerging concerns such as micropollutants.

Transboundary water cooperation and cooperation across sectors is key to ensure the coherence and effectiveness of national policies to improve water quality and enhance biodiversity. Cooperation and a source-to-sea approach are also key to protect seas and oceans from land-based pollution.

Restoring water bodies and water related ecosystems - including through reforestation - and expanding protected natural areas have proven effective to enhance biodiversity and have brought important socio-economic benefits.

**Strengthening water governance at national and transboundary levels**

*Trends and challenges*

Growing water demands in view of increased water stress and scarcity call for improved vertical and horizontal governance and intensified cooperation among stakeholders, sectors and countries.

The Pan-European region represents the most advanced region globally with regards to transboundary water cooperation as the Water Convention has strongly driven progress in this respect: since its adoption in 1992, more than 90 agreements have been developed on shared waters. These agreements and bodies have increased flood protection, saving thousands of lives and protecting billions of investments, facilitated intersectoral cooperation, supported early warning and data exchange and enhanced stakeholder participation in water management. However, challenges and gaps remain, especially on aquifers and in many basins mainly in South-Eastern Europe, the Caucasus and Central Asia. Joint adaptation to climate change represents a new area of work for many joint bodies.

*Good practices and actions needed*

It is crucial to strengthen inclusive, multi stakeholder and integrated water governance for the successful and coherent implementation of SDG 6 and of the Agenda 2030 as a whole. This calls for the establishment of inclusive and participatory mechanisms of concertation and decision-making at all levels, which take into account the voices of young people. Women’s equal leadership and mainstreaming gender considerations in decision making are also central.
As most of our water resources are shared, it is key to strengthen transboundary water cooperation for sustainable development, regional integration and peace and stability.

Legal agreements over transboundary freshwater resources and associated joint bodies are fundamental. The Water Convention should be used to spur the development of agreements where they are missing and to strengthen joint bodies. Strengthening cooperation on transboundary aquifers is a clear priority. Enhancing financing, strengthening capacity and improving availability and exchange of information are also needed to advance transboundary cooperation.

Strengthening basin governance, as called for by the Dakar Action Plan for basins launched at the 2022 World Water Forum, remains important in many basins of the region.

The EU-funded National Policy Dialogues on water that have supported countries in Eastern Europe, Caucasus and Central Asia to achieve their water-related goals have proven their effectiveness as tools to enhance water governance.

Many UNECE Member States feel the need to strengthen how water issues are dealt in the UN system, including by strengthening UN-Water and appointment of a UN Secretary General’s Special Envoy on Water.

**Strengthening climate resilience, reducing risks of floods and droughts and strengthening cooperation among water using sectors to reconcile competing needs**

**Trends and challenges**

Climate change impacts are exacerbating through various water-related phenomena; water-borne diseases; and changes in aquatic ecosystems. Climate change already costs the Pan-European Region billions of dollars annually. Financing of water-related climate projects has been limited and setting up bankable projects is difficult in some sub-regions.

In adaptation components of many Nationally Determined Contributions (NDCs), freshwater resources were identified as a priority area and measures for enhancing availability, efficiency and quality of water supplies were presented, including enhancing or building water infrastructure, improving sanitation and hygiene practices and responding to climate-sensitive vector- or water-borne diseases. Efforts to promote transboundary water management and cooperation were also included.

**Good practices and actions needed**

Water should foremost be mainstreamed into NDCs, climate change and disaster risk reduction actions, policies and plans. Integrating climate change issues in basin management planning is another important area. Developing adaptation strategies and measures, including joint ones in transboundary basins, is also important along with improved regulation and monitoring.

A nexus (or cross-sectoral) approach to managing common resources could greatly enhance water, energy and food security in countries and basins across the Pan-European region, including by: increasing resource use efficiency, capitalizing on regional complementarities, and improving natural resource governance. This will be integral in developing new, and strengthening existing, sustainable solutions, including climate-resilient infrastructure, waste-water treatment and re-use technologies, circular economy and nature-based approaches.

Participatory, multi-stakeholder and intersectoral water-food-energy-ecosystem nexus assessments such as those successfully carried out in several transboundary basins of the region using the UNECE methodology have proven useful.
To fight water scarcity, there must also be a stronger focus on indirect water uses, taking into account water footprint. Considering the water footprint of UNECE countries in the region and beyond, transformative action for fair water footprints which will have durable benefits for communities, ecosystems, and economies, and help to achieve SDG 6, is needed.

**Improving knowledge, management and protection of groundwater**

*Trends and challenges*

There is an urgent need for improved management and governance of groundwater resources in the region to ensure their sustainable usage, especially as overuse of groundwater is a growing challenge in many sub-regions. Effective groundwater management is also an important part of regional climate change solutions.

While there has been some progress in recent years, obtaining sufficient and accurate data on groundwater resources, particularly in transboundary contexts, remains problematic across the Pan-European region. Improved access to existing groundwater data and knowledge is thus needed, also because groundwater monitoring and analysis is expensive. Application of the “FAIR principles” means any data needs to be available and interpretable to all so that it can be used and reused accordingly.

Despite scientific advancements in mapping and monitoring groundwater, complexity of the topic makes it difficult for scientists and practitioners to present and transfer the findings and possible solutions to the policy-makers, as well as to the broader public.

Groundwater knowledge and education is lacking and a shortage of groundwater professionals in many countries persists. Hence, a significant gap in training and capacity-building in this field must be addressed across the region.

The number of agreements dedicated to transboundary aquifers is extremely small. For the vast majority of transboundary aquifers covered by agreements or arrangements within the Pan-European region, such agreements or arrangements are not specific to an aquifer.

*Good practices and actions needed*

For groundwater, “making the invisible visible” via data and information collection, monitoring and exchange is imperative to tackle data gaps and strengthen governance. Scaling up capacity development and communication on groundwater resources is crucial for any progress in this area, and adequate resources should be provided to this end.

In addition to the need for collaboration among different water users in a given region, there is an increasing awareness of the transboundary nature of many groundwater resources, and, therefore, of the need for transboundary cooperation.

Development of legal and institutional frameworks focused on effective management of groundwater resources and aquifer systems that can help ensure the sustainable use of groundwater are urgently needed, particularly in the case of transboundary aquifers. Existing joint institutions for transboundary water cooperation should enhance their attention to groundwater, e.g. through the creation of dedicated working groups. Pilot projects may provide solutions for enhancing information collection, monitoring and governance frameworks in transboundary aquifer systems.

The European Union Groundwater Directive, the two global water Conventions and the International Law Commission’s 2008 Draft Articles on the Law of Transboundary Aquifers can help to guide and
influence agreements and policy-setting. The UNECE Model Provisions on Transboundary Groundwaters (2012) —and their commentary—provide specific non-binding guidance for management of transboundary groundwaters with an aim to improve transboundary water cooperation with regard to groundwater and strengthen integrated management of transboundary surface waters and groundwaters.

**Accelerating progress through partnerships, financing, data, research and innovation**

*Trends and challenges*

Water-related data and information are critical for advancing progress across all water-related targets and indicators in the Pan-European region and globally.

While many capacity building activities on water take place in the region, the needs are still there, especially in some sub-regions and on certain topics such as groundwater and integrated management of surface waters and groundwaters, application of circular economy approach, climate change adaptation, and gender mainstreaming in water management. Digital solutions are increasingly used in capacity building efforts on water in the Pan-European region.

The need to mobilize adequate public and private financial resources and explore financial innovations and partnerships is apparent for advancing progress across all water-related targets and indicators in the region.

*Good practices and actions needed*

The SDG 6 Global Acceleration Framework and its five cross-cutting 'accelerators' – Financing, Data and Information, Capacity Development, Innovation, and Governance – plays an important role to rapidly scale progress across the region. The Key Messages and Recommendations from the Bonn Water Dialogues for Results 2021 and EU Council Conclusions on Water Diplomacy in 2019 and 2021 provide useful recommendations to guide responses in these areas, as well as in taking a human rights and gender-based approach.

Increasing access to and exchange of data is vital to enable decision-makers to employ quality, accessible, timely and reliable disaggregated data for analysis, planning and implementation of effective cross-sectoral action in order to leave no one behind on SDG6.

Decision-makers need to combine traditional knowledge with modern technology and innovative methods by involving multiple stakeholders to increase efficiency of water use and ensure sustainable water management, especially in water-stressed areas and transboundary basins.

Water-oriented “living labs” are real life demonstrations of the type of research and innovation, with intervention based on a cross-sectoral approach. The EU Water4All partnership launched in 2022 supports the development of water-oriented living labs and innovation.

Governments, national and international financial institutions need to improve targeting and effective use of existing funding, mobilize domestic resources, and attract additional investment from private and public sources to achieve SDG6. Financing mechanisms should incorporate a human rights-based approach and integrate balanced gender representation. Investments in the water supply and sanitation sector should be supported by sector reforms to ensure sustainability and efficiency.

Financing of transboundary water cooperation represents an important challenge in the region and globally. The work on funding and financing of transboundary water cooperation and basin development under the Water Convention has informed and advanced dialogue in this area. The multi-
partner Blue Peace Financing Initiative will facilitate progress in access to capital for local governments and river basin organizations.