



**Convention on the Protection and Use of Transboundary
Watercourses and International Lakes**

Working Group on Integrated Water Resources Management

Seventeenth meeting

Working Group on Monitoring and Assessment

Seventeenth meeting

Tallinn, 28-30 June 2022

Item 10(a) of the provisional agenda

Preparations for the United Nations 2023 Water Conference

**Main outcomes of the Pan-European Regional Preparatory
Meeting for the 2023 UN-Water Conference**

The present document includes the report of the Pan-European Regional Preparatory Meeting for the 2023 UN-Water Conference (Geneva, 12–13 April 2022), including the Chair’s summary. The meeting was organized by UNECE in cooperation with UN-Water and with input from the Regional Discussion Group (RDG) on Water for the Pan-European region, created in the framework of the UN-Water Expert Group on regional-level coordination. Documents and presentations from the meeting are available at <https://unece.org/info/events/event/365225>.

Report of the Pan-European Regional Preparatory Meeting for the United Nations 2023 Water Conference Geneva, 12 and 13 April 2022

Contents

	<i>Page</i>
I. Attendance	3
II. Opening session.....	3
III. Session 1. Make drinking water and sanitation available, safe and affordable for all.....	4
IV. Session 2. Tackle water pollution, conserve ecosystems and biodiversity and apply circular economy policies.....	5
V. Session 3. Strengthen water governance at national and transboundary levels.....	7
VI. Session 4. Strengthen climate resilience, reduce risks of floods and droughts and strengthen cooperation among water using sectors (agriculture, energy, etc.) to reconcile competing needs.....	9
VII. Session 5. Improve knowledge, management and protection of groundwater.....	10
VIII. Session 6. Accelerate progress through partnerships, financing, data, research and innovation	12
IX. Closing session.....	14
 Annex	
Chair's summary	15

I. Attendance

1. The Pan-European Regional Preparatory Meeting for the United Nations 2023 Water Conference was held as a hybrid meeting at the Palais des Nations in Geneva on 12 and 13 April 2022. The meeting was chaired by Ms. Elisabeth Tichy-Fisslberger, Ambassador, Permanent Representative of Austria to the United Nations Office in Geneva, Chairperson of the United Nations Economic Commission for Europe.
2. The meeting was organized by UNECE in cooperation with UN-Water and with input from the Regional Discussion Group (RDG) on Water for the Pan-European region, created in the framework of the UN-Water Expert Group on regional-level coordination.
3. The meeting was attended by representatives of the following 41 ECE member States: Albania, Armenia, Austria, Azerbaijan, Belarus, Bulgaria, Canada, Cyprus, Czech Republic, Estonia, Finland, France, Georgia, Germany, Greece, Hungary, Ireland, Israel, Italy, Kazakhstan, Lithuania, Luxemburg, Malta, Montenegro, Netherlands, North Macedonia, Poland, Romania, Russian Federation, San Marino, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Tajikistan, Turkey, Turkmenistan, Ukraine and Uzbekistan.
4. The following non-member States of ECE attended: Dominican Republic and Iraq.
5. The European Union also participated.
6. Representatives of the following United Nations bodies, departments, funds and programmes, specialized agencies, related organizations and initiatives attended the meeting: Economic and Social Commission for Asia and the Pacific, International Labour Organisation, United Nations Environment Programme, United Nations Educational, Scientific and Cultural Organization (UNESCO), United Nations Human Settlements Programme, United Nations Development Coordination Office, United Nations Office for Disaster Risk Reduction (UNDRR), United Nations Framework Convention on Climate Change (UNFCCC), United Nations Children's Fund, UN-Water and the World Health Organization (WHO).
7. Representatives of the following intergovernmental and regional organizations participated in the meeting: Chu-Talas Water Management Commission, Eurasian Development Bank, International Atomic Energy Agency, International Commission for the Protection of the Danube River (ICPDR), International Joint Commission (IJC), International Meuse Commission, International Sava River Basin Commission (ISRBC), Organisation for Economic Co-operation and Development (OECD), Organization for Security and Co-operation in Europe (OSCE), Regional Environmental Centre for Central Asia, Secretariat of the Convention on Wetlands, Union for the Mediterranean and the World Bank.
8. Representatives of non-governmental organizations as well as representatives of academia, the private sector, youth, and other organizations also participated. A complete list of participants can be found on the website of the meeting (<https://unece.org/info/events/event/365225>).

II. Opening session

9. The Chair, Ms. Elisabeth Tichy-Fisslberger, opened the Pan-European Regional Preparatory Meeting for the United Nations 2023 Water Conference. She explained this is a preparatory event for the UNECE region aimed at contributing a regional perspective to the United Nations 2023 Water Conference (New York, 22–24 March 2023).¹ The United Nations 2023 Water Conference is organised in conformity with General Assembly resolution A/RES/73/226 on the midterm comprehensive review of the implementation of the International Decade for Action, “Water for Sustainable Development”, 2018–2028. The modalities for the United Nations 2023 Water Conference are set in the General Assembly resolution A/RES/75/212. The Chair introduced the objectives of the meeting, namely to assess the progress made by the Pan-European region in the implementation of the objectives of the International Decade for Action, “Water for Sustainable Development”, 2018–2028, and the internationally agreed water-related goals and targets, including those contained in the 2030 Agenda for Sustainable Development, identify specific challenges and obstacles in the region, share experiences and good

¹ Information on United Nations 2023 Water Conference is available at <https://sdgs.un.org/conferences/water2023>

practices, and inspire new actions to accelerate progress towards the implementation of the objectives of the Decade and the Sustainable Development Goals (SDGs).

10. In her opening remarks, Ms. Olga Algayerova, Executive Secretary, UNECE, underscored that the war in Ukraine is depriving hundreds of thousands of people of the right to water and sanitation and that its regional implications will have detrimental consequences on the implementation of the entire 2030 Agenda. She stressed that water-related challenges persist throughout the UNECE region, however there are regional good practices to draw upon to accelerate progress towards SDG 6. Transboundary cooperation is crucial, and the Convention on the Protection and Use of Transboundary Watercourses and International Lakes (Water Convention) is a powerful instrument to advance cooperation which has turned the Pan-European region into the most advanced region on this subject. The UNECE/WHO-Europe Protocol on Water and Health provides practical tools for translating into action the human rights to water and sanitation; such tools are even more important due to increasing impacts of climate change on our health and in light of the COVID-19 pandemic.

11. Mr. Gilbert F. Hounbo, UN-Water Chair, highlighted that there is not a single major global challenge that does not involve water and therefore achieving water and sanitation for all should be everyone's business. The latest analysis shows that, globally, governments must work four times faster to get the SDG 6 on track. Through the SDG 6 Global Acceleration Framework, launched in 2020, UN-Water Members and Partners work together to drive progress on water and sanitation issues and advance the other SDGs; however a lot still needs to be done.

12. Mr. Jamshed Khamidov, Ambassador, Permanent Representative of the Republic of Tajikistan to the United Nations Office in Geneva and Ms. Nathalie Olijslager, Deputy Permanent Representative of the Netherlands to the United Nations Office in Geneva, emphasized the commitment of Tajikistan and the Netherlands as co-hosts of the UN 2023 Water Conference to make the 2023 UN Water Conference a watershed moment for the world. They outlined that the Conference, its preparatory process and outcomes should be inclusive, action-oriented and cross-sectoral. Co-hosts also described the expected outcomes of the Conference. These would include the summary of the Conference proceedings, a Global Water Pact to present a set of voluntary commitments made at the Conference, and a Roadmap towards 2028 (the final year of the Decade) and 2030 (the final year of the SDGs) and the Agenda beyond 2030.

13. A representative of Ukraine described the severe damage to water-related infrastructure and natural sites brought by the Russian Federation's military invasion. The European Union expressed the EU's and its Member States' solidarity with the people of Ukraine and strongly condemned the Russian Federation's act of aggression against Ukraine that violated international law. In exercising its right of reply, the Russian Federation rejected all allegations as not related to the topics of the Pan-European Regional Preparatory Meeting and called upon participants to use the meeting for constructive and not-politicized exchange on water issues.

III. Session 1. Make drinking water and sanitation available, safe and affordable for all

14. Session 1 aimed to share concrete solutions – how to achieve safely managed water and sanitation services and equitable access to water and sanitation for all – and to discuss specific priorities of the UNECE region in this respect, in line with the targets 6.1 and 6.2 of the 2030 Agenda.

15. Mr. Oliver Schmoll, WHO Regional Office for Europe and Joint Secretariat of the Protocol on Water and Health, stressed that more than 15 million people lack access to basic drinking-water services, 29 million lack access to basic sanitation services, and 140,000 are practicing open defecation in the Pan-European region.² Annually, 2,700 people in the region die from WASH-related diarrheal diseases. While the region enjoys relatively high access to “basic” sanitation services and drinking water services, the access to “safety managed” services is significantly lower. Although good progress in increasing the share of safely managed services was achieved by many countries in the period 2015–2020, the region needs to accelerate efforts to boost from “basic” to “safe” services. Significant differences in access to basic services between urban and rural areas are observed in the region, with rural areas typically disadvantaged, and rural poor being the most disadvantaged. Focus on providing the services to all disadvantaged therefore remains the outmost priority. Special attention should also

² WHO and UNICEF, 2021.

be paid to ensure access to water supply and sanitation in institutions and public places, in particular healthcare facilities, but also schools and workplaces, to make them WASH-fit. The Protocol on Water and Health is a powerful tool to translate the international water targets into national targets and actionable measures and offers a set of tools and knowledge products, as well as peer support.

16. Ms. Biljana Filipovic Djusic, Ministry of Environmental Protection of Serbia, shared the experience of Serbia in using the Protocol on Water and Health and its tools in achieving on the SDGs. A Party to the Protocol since 2013, Serbia set its national targets under the Protocol which are now helping the country to implement international water-related objectives. In the framework of the Protocol, Serbia implemented a national-level systematic survey of drinking water quality and sanitary conditions in small systems of rural areas in 2016 which resulted in strengthening policy response to provide access to water and sanitation in rural areas. Serbia conducted a self-assessment of equitable access to water and sanitation in 2017-2018, using the Protocol's equitable access score-card methodology, and developed an action plan to address inequities in access. In 2019, the country was first to conduct a national situation analysis of WASH in healthcare facilities. These tools assisted the country to develop and implement projects to address the gaps in some regions of the country that could be replicated in other regions. Serbia has also worked on developing gender responsive policies, including on access of women to sanitation.

17. Ms. Natasha Dokovska, Journalists for Human Rights (North Macedonia) and Women Engage for a Common Future (WECF), presented the outcomes of the project which introduced water and sanitation safety planning in rural and peri-urban communities in Western Balkans (Albania, North Macedonia, Serbia) and Romania with a focus on schools. The project prepared a Compendium "Developing a Water and Sanitation Safety Plan in a Rural Community". This instrument adapted the relevant WHO guidelines to capacity of small communities which allows to engage local stakeholders and identify affordable solutions. In response to the COVID-19 pandemic, the third edition of the Compendium will include guidance on preventing the spread of infectious diseases in schools. She highlighted the need for awareness raising, in particular to address the lack of knowledge among population in rural areas on activities which lead to water pollution, and stronger public participation in decision-making and access to information, for example, on water quality.

18. As part of the statements from the floor, a representative of Global Water Partnership Central and Eastern Europe (GWP CEE) and the University of Ljubljana highlighted the outcomes of a study on wastewater collection and treatment in small settlements of Central and Eastern Europe and called for simple and robust technologies such as nature-based solutions (NBS) to be applied at larger scale to improve wastewater management in rural areas. A representative of the European Federation of Water Services (EurEau) shared experiences about how water utilities engage with authorities to ensure the human right to water and sanitation, acting on the aspects of availability, accessibility, acceptability, affordability, and quality/safety. The European Union underscored the importance of a human rights-based approach in water management and governance for leaving no one behind and emphasized that adequate institutional frameworks, capacity building, and climate resilient infrastructure remain priorities for the EU and its Member States in this respect. The European Union also referred to the need for strengthening the complementarity between humanitarian, development and peace action to support safety of water resources, water personnel and water infrastructure. Azerbaijan described its experiences towards achieving the SDG 6 and priorities for further action, such as introduction of best available techniques to improve water use efficiency, adaptation of water sector to climate change, introduction of integrated permitting, and enhancing transboundary water cooperation. North Macedonia informed that its Government approved accession to the Protocol on Water and Health in March 2022 and the country expects to finalize the accession process by the sixth session of the Meeting of the Parties to the Protocol in fall 2022.

IV. Session 2. Tackle water pollution, conserve ecosystems and biodiversity and apply circular economy policies

19. Session 2 aimed to explore the experience and inspire successful initiatives to improve water quality, conserve and restore ecosystems, and introduce circular economy approaches.

20. Mr. Adam Kovacs, International Commission for the Protection of the Danube River (ICPDR) presented progress of the Danube countries in achieving good chemical status and good ecological status, including cutting organic emissions by 60 per cent and phosphorus emissions by 50 per cent since 2009, and progress in river restoration activities, e.g. through 62,000 ha of wetlands and floodplains reconnected since 2009. Significant

investments in wastewater treatment infrastructure by Danube countries and related capacity building and policy support by the ICPDR contribute to the achievement of SDG 6. Efforts to preserve ecosystems, in particular restore the vulnerable sturgeon populations through river restoration activities and measures to enable fish migration, are bringing fruits. Building on success in reduction of the nutrient loads from the Danube to the Black Sea and other measures to protect the marine ecosystems in line with the SDG 14, the ICPDR developed a guidance document on sustainable agriculture. The international legal mandate and well-structured cooperation among riparian countries in the framework of the ICPDR have been crucial for success in reaching pollution reduction targets in the basin, enabling collaborative technical work and implementation of agreed actions by the countries. Reliable and trusted data and transparent assessment tools, as well as strong dialogue with stakeholders and public outreach, have been another key to success. The science-policy gap at national level and lack of funding for specific transboundary projects are among key challenges.

21. Mr. Shamsiddin Kurbonov, Ministry of Water Management of the Republic of Uzbekistan, highlighted the efforts of Uzbekistan to preserve and restore the ecosystems of the Aral Sea. Uzbekistan takes systemic action to create forest plantations on the drained bottom of the sea in order to protect the environment from dissemination of salt and sand. In 2019-2020 alone, forest planting was carried out in an area of 1,167,000 ha. Measures are also being taken to preserve existing ecosystems by expanding the protected areas in the Aral Sea region. In the past two years, the Southern Ustyurt State Strict Nature Reserve with an area of 1.4 million ha and the Sudochoye-Akpetki State Reserve on an area of 280,500 ha have been created in Karakalpakstan. Local reservoirs have been restored in the delta of the Amu Darya River, such as Sudochoye, Rybachye, Dzhylytyrbas, Mezhdurechenskoye, Muynak, Makpalkol and the Akpetki Lake system. These efforts contribute to restoration of ecosystems in the Aral Sea region and some economic activities such as fishing. Furthermore, Uzbekistan has sharply reduced the cultivation of cotton, the most water-consuming crop. Uzbekistan pays strong attention to transboundary water cooperation in bilateral and multilateral formats.

22. Ms. Marijana Mance, European Commission, presented the European Green Deal and the water policies for SDG 6 implementation in the European Union. She highlighted that water is placed at the heart of the various policies and strategies adopted in the framework of the European Green Deal. The Circular Economy Action Plan puts an emphasis on water efficiency and water reuse. The Biodiversity Strategy envisages actions to restore the flow of rivers, protect wetlands, establish protected areas and prioritize nature-based solutions (NBSs). Zero Pollution Action Plan for air, water and soil includes measures to tackle water pollution at source and act against new pollutants. Climate Adaptation Strategy enables the work on NBSs, improved flood risk management planning and improved water efficiency. These strategies are now being translated in EU water policies. A new regulation (2020/741) will encourage circular approaches to water reuse in agriculture. It is envisaged to revise the Urban Waste Water Treatment Directive (Directive 91/271/EEC) to enhance the protection of the environment from the adverse effects of the discharges of untreated waste water. The revision of the Industrial Emissions Directive (2010/75/EU) will include the integration of circular economy practices in upcoming Best Available Techniques reference documents. Transboundary water cooperation is critical for effective measures to tackle water pollution.

23. Mr. Laurent Brunet, Eau France, Suez and FP2E, shared the experience of water operators in creating and implementing circular schemes for wastewater treatment. He emphasized the gradual expansion of objectives of wastewater treatment, from protection of population from diseases carried by dirty water to environmental protection and circular economy (i.e. recovery of resources from wastewater). Wastewater is increasingly being used as a local resource of water, energy and fertilizers and there are many successful examples in this respect. The levers to enhance the recovery include growing public awareness and public pressure in support of circular economy, evolution of regulations and legal frameworks which enable circular economy solutions, and technological development. The obstacles to introduction of circular schemes for wastewater treatment are cultural reluctance, regulatory rigidity, economic viability of the projects and emerging sanitary concerns (e.g. removal of microplastics). He emphasized that confidence and trust in well managed sanitation systems are the issue of accountability of local authorities and operators.

24. As part of the statements from the floor, a representative of Youth and Environment Europe (YEE) drew attention to effects of chemical and microplastics pollution on environment and health. She welcomed the efforts to put forward NBSs and improve the protection of ecosystems and called for improved accessibility and reliability of monitoring data on the state of water bodies. A representative of the Join for Water NGO highlighted the problem of water footprint and described the activities of this organisation to raise awareness among

governments, companies and citizens on the impact of their water footprint. Hungary highlighted the importance of transboundary cooperation to address water pollution and the problem of pollution by plastics. Hungary also drew attention to the work of the Joint Expert Group on Water and Industrial Accidents under the Water Convention and the Convention on the Transboundary Effects of Industrial Accidents and guidance documents developed by the group.

V. Session 3. Strengthen water governance at national and transboundary levels

25. The session was devoted to improved water governance and intersectoral coordination within countries, as well as transboundary cooperation in line with the SDG target 6.5 on integrated water resources management (IWRM) and aimed to showcase concrete mechanisms and experiences related to legal, regulatory, administrative and technical frameworks in these areas.

26. Mr. Serik Kozhaniyazov, Vice-Minister of Ecology, Geology and Natural Resources of the Republic of Kazakhstan, described Kazakhstan's efforts in the area of SDG 6 at national and transboundary level. Kazakhstan introduced basin management of water resources by establishing basin inspections and basin councils. Implementation of basin management improved participation of all water users in the management and protection of water resources. As seven out of eight river basins are transboundary, Kazakhstan concluded bilateral agreements and established joint bodies for cooperation with neighbouring countries. It also cooperates in the multilateral framework of the International Fund for Saving the Aral Sea and its institutions. Kazakhstan actively supports the activities under the Water Convention, including the Strategy for the implementation of the Convention at the global level, and hosts the International Water Assessment Centre under the Convention. The National Policy Dialogue (NPD), launched in 2012 and supported by the European Union and UNECE, is an effective instrument to ensure coordination between sectors and contribute to the achievement of SDG target 6.5.

27. Ms. Lilit Abrhamyan, Ministry of Environment of Armenia, highlighted the role of the NPD in Armenia in accelerating the achievement of the SDGs. The NPD process in the country started in 2006 and its Steering Committee had more than 20 meetings. The process resulted in transparent decision making, improved coordination between governmental authorities and stronger coordination among international organisations and donors. It facilitated the introduction of IWRM and principles of EU directives in the national legislation. A roadmap for approximation of Armenian legislation with the Water Framework Directive, Urban Waste Water Treatment Directive, Nitrates Directive and Floods Directive was developed and approved by a ministerial decree. The NPD process also supported the assessment of economic instruments of water management which enabled the government to reform payments for use of water by fisheries. Most recently, the NPD process supported transboundary cooperation of Armenia with Georgia on monitoring and data exchange in the Khrami-Debed River basin.

28. Mr. Aurélien Dumont, UNESCO, and Ms. Sonja Koeppel, UNECE, presented the outcomes of the second reporting exercise (2020) on the SDG indicator 6.5.2 which measures the proportion of transboundary basin area with an operational arrangement for water cooperation and for which UNECE and UNESCO are co-custodian agencies. In 2020, 129 out of 153 countries sharing transboundary river, lake or aquifer basins submitted reports. In the UNECE region, 49 out of 52 countries sharing water resources responded. Only 24 countries worldwide (of which 20 UNECE member States) reported all transboundary surface waters and groundwaters covered by operational arrangements for water cooperation. There has been progress in UNECE region with the inclusion of aquifers in the second reporting exercise compared to the first exercise but there still is insufficient knowledge on groundwater systems in many subregions. The second reporting exercise demonstrated the significant impact of Water Convention on cooperation in the UNECE region. The average value of the SDG indicator 6.5.2 for Parties to the Convention is 80% (global average: 58%). Although the region demonstrates good results, progress must be accelerated to ensure that all transboundary basins are covered by operational arrangements by 2030. Key means to accelerate progress are building political will, upscaling capacity development, leveraging and mobilizing expertise, addressing data gaps, and strengthening legal frameworks.

29. Ms. Jane Corwin, U.S. Chair, International Joint Commission (IJC), shared the experience of the IJC created by the Boundary Waters Treaty of 1909 for the purpose of settling and preventing transboundary water disputes between the United States and Canada. The IJC has a rich history of water apportionment issues and relies on strong engagement with affected communities. One of the recent experiences is the concept of "adaptive management" used by the watershed boards to monitor and review international water regulation plans across the

transboundary waters. In 2022, the IJC is undertaking the 50th anniversary review of the 1972 Great Lakes Water Quality Agreement. The “Great Lakes Horizon” project will identify the factors that will impact the Great Lakes ecologically, economically, socially and culturally over the next 30+ years and suggest how the Agreement could be improved. Another initiative which broadly supports the Water Action Decade and the SDG 6 is the Great Lakes Manure Management Framework.

30. Mr. Aleš Bizjak, Ministry of the Environment and Spatial Planning of Slovenia, shared lessons learned on transboundary water cooperation by the countries cooperating in the framework of the International Sava River Basin commission (ISRBC), established by the 2000 Framework Agreement on the Sava River Basin. The IWRM in the Sava builds on three pillars: Sava River Basin Management Plan (2014, 2022), Sava Flood Risk Management Plan (2019) and Outline of Sediment Management Plan (2022). Several joint plans and programmes have advanced cooperation in the basin, such as the Sava–Drina River Corridor integrated development programme (2017) and Outline of the Climate Adaptation Strategy and basin-wide priority measures for the Sava River Basin (2018). The Accident Emergency and Warning System (since 1997), Sava GIS/HIS (since 2015) and Flood Forecasting and Warning System (since 2018) support data exchange. Enhancement of intersectoral cooperation within countries and at transboundary level, achieved with help of several international projects, and stakeholder involvement through stakeholder forums and Sava Youth Parliament are prominent achievements of the ISRBC. Lessons learned from transboundary cooperation in the basin include the importance of solid legal and institutional framework and the understanding of transboundary water cooperation as a long-term, difficult but beneficial process.

31. As part of the statements from the floor, Estonia highlighted the Water Convention as a strong legal framework to improve water governance and mentioned the work on the water-food-energy-ecosystems nexus in transboundary basins, implemented in the framework of the Convention which helps countries identify opportunities for equitable sharing of benefits from stronger cooperation across sectors.

32. Austria described the EU Water Initiative Plus programme, led by Austria and France in cooperation with UNECE and OECD, which has supported Armenia, Azerbaijan, Belarus, Georgia, the Republic of Moldova and Ukraine to adopt and implement a systemic approach to IWRM. It also highlighted the Austria’s Water Treasure project to re-assess the availability of groundwater resources on national level in the light of current water uses and projected impacts of climate change.

33. A representative of YEE and EDEN Center called for youth participation in the climate and environmental decision-making processes and suggested the establishment of youth advisory groups in institutions in charge of water management at all levels.

34. A representative of the International Network of Liberal Women called for progressive elimination of inequalities in access to water and sanitation by 2030 and the inclusion of women in the development, planning and implementation on water scarcity and sanitation issues.

35. A representative of the International Network of Basin Organizations (INBO) highlighted basin governance as a tool to achieve water-related SDGs and recalled the Dakar Action Plan for basins, launched at the 2022 World Water Forum. The Plan already received political support of 63 organizations from 39 countries.

36. A representative of SIWI described the action platform for source-to-sea management hosted by this organisation. The platform brings together organisations who promote a holistic management of land, freshwater, coasts, and the ocean. She invited all governments and stakeholders to join the platform.

37. The European Union stressed the relevance of global and regional operational arrangements and of the Water Convention for transboundary water cooperation. It highlighted the role of the 2023 Water Conference in strengthening multilateralism on water with the UN at its core. It called for the strengthening of UN-Water and the establishment of a UN Special Envoy for Water.

38. Switzerland called for transboundary water cooperation, which falls under the water and peace cluster, to be duly addressed at 2023 Water Conference. It called for reinforcing basin organisations, as well as related funding and financing for peaceful water cooperation. Switzerland recalled the relevance of the Water

Convention, including for upstream countries, expressing hope that this will also be done at next year conference. It further supported the appointment of a UN Special Envoy on Water.

39. A representative of Geneva Water Hub stressed that armed conflicts, including in the Pan-European region, undermine the realization of the SDGs, and that “leaving no one behind” should also mean protection of water infrastructure before, during, and after armed conflicts. She highlighted a key role of river basins organizations in making water a vector for peace.

40. Finland highlighted transboundary water cooperation, its importance for water and peace, and the tools developed under the Water Convention such as a recent handbook on water allocation. It also emphasized the gender transformative approach to accelerate actions on human rights to water and sanitation. Finland urged for the recognition of the concept of water security and the establishment of a UN Special Envoy on Water to become outcomes of the 2023 Conference.

41. Azerbaijan described its steps to improve efficiency of water resources management, including through setting up in 2020, of a water commission as a mechanism to coordinate sectoral uses of water resources.

42. The Russian Federation shared its experience at national and transboundary levels, including on the implementation of the basin approach, and stressed particular importance of bilateral intergovernmental agreements for regulation of relations between riparian countries.

VI. Session 4. Strengthen climate resilience, reduce risks of floods and droughts and strengthen cooperation among water using sectors (agriculture, energy, etc.) to reconcile competing needs

43. This session focused on climate change impacts on water resources which can seriously affect water quantity, quality and ecosystems, and thereby impact water-dependent sectors, with an aim to increase awareness of the importance of water in climate change adaptation and disaster risk reduction. The session also discussed the potential of the nexus approach to make a contribution to strengthening climate resilience and balancing the competing needs for precious resources, including water.

44. Mr. Octavian Bivol, UNDRR Regional Office for Europe and Central Asia, highlighted that with COVID-19 and climate- and water-related disasters, such as the major 2021 floods in Europe or melting of glaciers in Central Asia, disasters have increasingly compound and cascading impacts that are felt across geographies and sectors. He encouraged Member States to increase synergies between the midterm review of the Water Action Decade and the midterm review of the Sendai Framework for Disaster Risk Reduction 2015–2030, both to be carried out in 2023, as these review processes offer a unique opportunity to identify adjustments that promote risk-informed development while sustainably managing water resources.

45. Ms. Indira Akbozova, Secretariat of the Chu Talas Water Management Commission, shared the experience of strengthening climate resilience in cooperation of Kazakhstan and Kyrgyzstan in the Chu and Talas river basins. The Strategic Action Programme (SAP) was approved by the Commission in 2021. Its implementation contributes to objectives of the Water Action Decade, implementation of SDGs and several multilateral environmental agreements. Under Goal 1 (water quantity) of the SAP, countries cooperate on the maintenance of hydrotechnical infrastructure in order to decrease the risks of floods and droughts. Under Goal 2 (water quality), the working group on environmental protection undertakes coordinated sampling in the two rivers. Under Goal 3 (protection of ecosystems), the same working group assessed wetlands in lower Chu basin in Kazakhstan and recommended their inclusion on the Ramsar list. Under Goal 4 (climate change) many capacity building activities were implemented and measures were undertaken to restore floodplain forests in the basin.

46. Mr. Ylber Mirta, Ministry of Environment and Physical Planning, North Macedonia, described the experience of applying the water-food-energy-ecosystems nexus analysis in the Drin River Basin, carried out using the assessment methodology developed by UNECE. The nexus analysis enabled the in-depth analysis of issues and solutions in several areas, including the physical relation between hydropower operations and flood episodes in the basin. The project enabled identification of nexus priority interventions and preparation of two project documents – on sustainable forest management and on NBSs. Furthermore, the project developed a Nexus Roadmap focusing on options to operationalise the cross-sectoral objectives of the Drin SAP and activities related to the interface of hydropower operations and floods and to sustainable forestry. These activities contributed to

the objectives of the Water Action Decade and SDG targets 6.4, 6.5 and 6.6, and supported the joint body – the Drin Core Group – through policy recommendations, capacity building and analytical work.

47. Ms. Anna Smetanova, GWP CEE, highlighted the lessons learned from implementing the Integrated Drought Management Programme in Central and Eastern Europe. This joint programme of the WMO and GWP contributed to many targets of the SDG 6 but also to targets 2.4 and 15.3. It showed the need for stronger action on monitoring and early warning on droughts, as water use tracking is still not common, national monitoring systems for droughts are not harmonized, and drought early warning systems (DEWS) are rarely used. In the area of mitigation, preparedness, and response, it is important to rethink financing for drought management and explore opportunities from combining drought management, flood management, nature conservation, and nature-based solution for climate adaptation. There is also a need to strengthen policies and planning, as many countries in lack an umbrella document on drought management.

48. Mr. Stefano Canti, Minister of Territory and Environment, Agriculture, Civil Protection and Relations with the Autonomous Public Works State Corporation, Republic of San Marino, highlighted that most San Marino's water needs are met by transboundary waters. In order address the current and future lack of water supply sources, a new project to construct an accumulation reservoir on the San Marino River, together with a hydroelectric power plant downstream of the dam, is planned.

49. As part of the statements from the floor, a representative of UNFCCC, stressed that implementing the Paris Agreement requires urgent scaling of adaptation action, including in the water context and in transboundary settings. National governments have integrated water resources management, water efficiency, climate resilient domestic and institutional WASH services and early warning systems among key priorities in their nationally determined contributions and national action plans.

50. A representative of OECD informed of a new project on the energy-water-land nexus in Central Asia, to be implemented by OECD, UNECE, European Bank for Reconstruction and Development, Food and Agriculture Organization and the Scientific and Information Center of the Interstate Commission for Water Coordination of Central Asia with support of Germany.

51. Hungary highlighted the importance of intersectoral cooperation in building up resilience to climate change. It stressed the relevance of international cooperation in adaptation, providing the example of the Climate Adaptation Strategy for the Danube River Basin, updated in 2018. Hungary also called for integrating climate change issues in basin management planning.

52. Malta identified communication with stakeholders as an important aspect of climate change action, in particular to reduce water consumption and promote water saving practices.

VII. Session 5. Improve knowledge, management and protection of groundwater

53. In her introduction to the session, the Chair highlighted that in 2022, the annual UN World Water Development Report, released on 22 March 2022, the World Water Day, is devoted to groundwater. The session therefore aimed to discuss the challenges and opportunities associated with management and governance of groundwater in the UNECE region. It also intended to provide input and ideas to the UN-Water Summit on Groundwater (Paris, 6–8 December 2022).

54. Mr. Zoran Stevanovic, University of Belgrade, UNESCO expert, presented the outcomes of the first phase of Dinaric Karst Transboundary Aquifer System (DIKTAS) project – a GEF project implemented by UNDP and UNESCO's International Hydrological Programme – and the planned activities for the second phase. The project allowed improving the understanding of the karst aquifer system and of its environmental status through the preparation of a Transboundary Diagnostic Analysis (TDA) and facilitated harmonisation of policies through elaboration of a SAP. The state of groundwater in the DIKTAS region was assessed as generally good with a few exceptions. The main threat is from solid waste and wastewater disposal, followed by agriculture and industry. The lack of monitoring is among major shortcomings. The project produced several knowledge products, including the international course "Characterization and Engineering of Karst Aquifers", conducted annually since 2014 for students from all over the world. The second phase is expected to design a regional groundwater

monitoring network, improve the management of sanitary protection zones and facilitate sustainable management and equitable use of the aquifer system.

55. Ms. Morgana Marku, Water Resources Management Agency of Albania, described the pilot project “Design and testing of a multipurpose transboundary groundwater monitoring network in the Extended Drin River Basin”, implemented in two aquifer systems (Buna/Bojana delta area and around the Skadar/Shkoder Lake) in Albania and Montenegro. Based on analysis of various types of information (hydrological, socio-economic and environmental), the pilot project designed and tested a monitoring network in line with requirements of the EU Water Framework Directive. Aquifer vulnerability maps were produced. Monitoring zones were proposed. The project is of particular importance for the 2030 Agenda as aquifers and related groundwater dependent systems provide a large number of ecosystem services needed in order to achieve the SDGs. Such knowledge and exchange of information are especially important in transboundary context.

56. Mr. Marco Petitta, International Association of Hydrogeologists (IAH), drew attention to the findings of the UN World Water Development Report 2022 and called “to look inside the well”, i.e. make groundwater better known to decision-makers, practitioners, citizens and society. He highlighted IAH’s commitment to promote data sharing to support the inclusion of groundwater information/knowledge in the SDG6 implementation and to contribute to the enhancement of perception of the importance of groundwater for implementation of SDG6. The Sao Paulo-Brussels Groundwater Declaration of the IAH, adopted in 2021, aims at facilitating awareness on groundwater among society and non-experts. IAH designed several activities based on the principles of the declaration with the aim to address the lack of (quantity and quality) monitoring of groundwater, encourage and support policies and regulations adopting a sustainable groundwater management, and address lack of communication. Such knowledge sharing should be based on FAIR (Findable, Accessible, Interoperable, Reusable) principles.

57. Ms. Dominique Darmendrail, French Geological Survey, described the activities of the European Geological Surveys (EGS) to develop actions on groundwater data and its importance for sustainable management of resources in the framework of the Horizon 2020 GeoERA project. The project disseminated digital spatial information in maps, 3D models and publications through the platform EGDI based on common methodologies. Project outputs refer to groundwater quality (e.g. maps on groundwater vulnerability to pollution from the surface at European scale), groundwater quantity (e.g. local studies of karst and chalk springs and aquifers, and maps on the depth and volume of groundwater resources at European scale), impacts of climate change (e.g. modelling groundwater evolution in relation to climate change) and groundwater vulnerability (with a focus on vulnerability to energy-related activities). Although geological surveys from 30 countries participated in the project, some maps do not cover all countries due to the lack of data. Project results directly contribute to SDGs, as they include data and indicators on groundwater availability and quality. With the hydrogeological context in Europe being highly variable, there is a need to make existing data FAIR (findable, accessible, interoperable, Reusable) and continue collecting data on unknown areas and parameters. Also, tools to address future challenges, such as prediction models for assessment of climate change impacts and measures for an efficient sustainable transition are needed.

58. As part of the statements from the floor, a representative of the International Groundwater Resources Assessment Centre (IGRAC) informed of the first-ever Groundwater Summit (Paris, 6–8 December 2022). The Summit will use the World Water Development Report 2022 as a baseline and the SDG 6 Global Acceleration Framework as guidelines to define actions towards sustainable use and protection of groundwater. The Summit will unify the statements from all major water-related events in 2022 in one comprehensive groundwater message for the UN 2023 Water Conference.

59. Slovenia highlighted the need for integrated management of surface waters and groundwater. It referred to the nexus approach as a methodological approach for addressing the competition between different uses of groundwater. It stressed the need to prioritise the development of human and institutional capacity on groundwater and skills of communicating groundwater science. The 1997 Watercourse Convention, 1992 Water Convention and 2008 Draft Articles on the Law of Transboundary Aquifers should be used as a legal framework to conclude agreements on transboundary aquifers.

60. Greece highlighted the 2012 Model Provisions on Transboundary Groundwaters adopted by the Meeting of the Parties to the Water Convention. The Model Provisions provide useful guidance to assist governments in

conclusion of additional protocols on groundwater or incorporating provisions on groundwater in existing transboundary water agreements.

61. A representative of SIWI stressed the need for empowered participatory mapping and monitoring of groundwater and building of adequate knowledge on groundwater. She called for connecting discussions on groundwater with efforts for realizing the human right to water and sanitation.

62. UNESCO stressed the 2023 Water Conference as an opportunity to bring groundwater to the highest level of the political agenda and highlighted the need to build capacity on groundwater and invest in water education in many countries of the region. A new initiative on capacity development for water will start soon under coordination of UNESCO and UN DESA as part of the SDG 6 Global Acceleration Framework. UNESCO reiterated its commitment to continue to support Member States in the study and assessment of groundwater resources and aquifer systems through its Intergovernmental Hydrological Programme (IHP).

VIII. Session 6. Accelerate progress through partnerships, financing, data, research and innovation

63. In her introduction to the session, the Chair recalled the SDG 6 Global Acceleration Framework, launched in 2020 by UN-Water, which identifies five accelerators to drive the action of international community on SDG6 (optimized financing, improved data and information, capacity development, innovation and governance). She explained that the session will focus on several accelerators which are of particular relevance to UNECE region, also taking into account that governance aspects were addressed in session 3.

64. Ms. Janine Muzau, Federal Ministry for the Environment, Nature Conservation, Nuclear Safety and Consumer Protection of Germany, presented the Bonn Key Messages and Recommendations which are the outcomes of the Bonn Water Dialogues for Results 2021 and constitute an official contribution to the Midterm Review of the Water Action Decade. The Bonn Key Messages are based on SDG 6 Global Acceleration Framework and propose cross-sectoral action to accelerate SDG 6 implementation. Currently they are supported by 63 Member States and have also been endorsed by the EU. Many of the findings and messages are very relevant for the Pan-European region. For example, there is financing gap for water in the region and a need for inclusive and innovative financing mechanisms, going beyond the conventional mechanisms of the water sector. Financing mechanisms need to follow human rights based approaches. The Water Convention has done an important work of financing of transboundary water cooperation and basin development. As part of the acceleration efforts on governance, it is important to promote human rights to water and sanitation and the human right to a clean, healthy and sustainable environment. Basin-wide transboundary water cooperation is another governance acceleration factor, with the need to promote relevant international conventions and instruments, in particular the Water Convention. The appointment of a UN Secretary General's Special Envoy on Water could be a strong input to acceleration of efforts. Member States and stakeholders are invited to join the discussion on the role that such an envoy could play in coherence with already existing structures and initiatives.

65. Mr. Igor Palandzic, World Bank, presented a unique international partnership on the supporting reform of the water supply and sanitation sector in Bosnia and Herzegovina to help the government to achieve the water-related SDG goals but also improve the sector in line with its aspirations related to EU accession. As past investments in infrastructure (over EUR 500 million in last decade) have not been accompanied by modernization measures in the water services sector, and the achievement of national targets on water and sanitation set by the country on the basis of SDG 6 will require significant investments (over EUR 3.5 bln by 2030), the international development partners working in the sector have come together in a "water alliance" to support modernization of the sector. The alliance led by the World Bank works at both technical and political level, to develop strategic documents and actions, ensure their acceptance in the very complex institutional setting of the country, and set a common understanding between international partners and government on the future of the sector. This initiative should enable modernization of the sector, leading to increase efficiency of the service and the achievement of the SDGs.

66. Mr. Durk Krol, Water Europe, described the activities of this multistakeholder association on creating a water-smart society through fostering innovation in several areas, including increasing reuse and recycling of water, using digital solutions to optimize water management and capturing value contained in wastewater (minerals, nutrients, energy). Several years ago Water Europe developed a concept of Water-Oriented Living Labs (WoLLs) which has since been taken up in many European research projects. The Atlas of the EU Water Oriented

Living Labs published in 2019 contains a first-ever mapping and categorisation of European WoLLs. The concept of WoLLs became one of the founding pillars of the Horizon Europe Water4All Partnership, launched in 2022 with a budget of about 500 mln Euro over next 7 years. The project should develop practical and affordable solutions replicable in different contexts.

67. As part of the statements from the floor, a representative of the Union for the Mediterranean (UfM) secretariat described UfM efforts to facilitate the discussion on water investments and financing in the Mediterranean region. The UfM supports more inclusive policy development planning, develops a portfolio of investment solutions in the Mediterranean and provides the link between beneficiary countries in the South of the region and partners from the North and development partners. The second UfM Conference on Water Investment and Financing will be conducted in the framework of the Mediterranean Dialogues (MED) later this year.

68. A representative of the United Nations Capital Development Fund underscored that mobilizing sufficient financing remains a major challenge in implementing the 2030 Agenda and called for creating incentives, including financial incentives, for transboundary and multisectoral cooperation. It highlighted the Blue Peace Financing Initiative launched by UNCDF together with partners at the 9th World Water Forum in Dakar. This Initiative is as follow-up to the Global High-Level Panel on Water and Peace and aims to promote access to capital for local governments and River Basin Organizations.

69. Slovenia highlighted that progress in all five acceleration areas of the SDG 6 Global Acceleration Framework (governance, finance, innovation, data and capacity building) is inter-dependent. Slovenia underlined the cross-cutting nature of water and the importance of the Bonn Key Messages and the EU Council Conclusions on Water in EU's External Action which promote a comprehensive approach to water. It also highlighted the value of partnerships between countries sharing a basin.

70. A representative of the World Economic Forum described the initiatives of his organisation that can contribute to the 2030 Water Conference, in particular partnerships that include the private sector who works together with governments and other stakeholders on water security. The examples include the 2030 Water Resources Group – a coalition that facilitated nearly USD 1 bln water security investments over the last decade, and the 50L Home Coalition which works with city governments to bring innovation to homes and wider urban ecosystems.

71. The European Union recalled the importance of supporting transboundary cooperation on water and its dedication to promoting partnerships in this area. Between 2014-2020 more than Euro 2.5 bln were dedicated to water cooperation in more than 110 countries. The EU-Central Asia Platform on Environment and Water Cooperation is one example of such efforts. Outside the UNECE region, the EU and its Member States together with the European Investment Bank in cooperation with the African Union are preparing a regional Team Europe Initiative on Transboundary Water Management in Africa.

72. Spain recalled the Protocol of Water and Health and the Water Framework Directive as clear enablers for making progress towards the achievement on SDG6. It stressed that capacity building and knowledge transfer are essential components for achieving the SDG6.

73. A representative of the Butterfly Effect and the International Secretariat for Water informed on consultations with more than 200 NGO representatives conducted by the Butterfly Effect to identify common messages for the 2023 Water Conference. The civil society organisations demand to include the rights to water and sanitation in national legislations, call upon the UN to declare the global water crises and request the international community to recognise water as a common good. A representative of Coalition Eau called upon governments and the European Union to increase funding especially on hygiene and sanitation, ensure targeting the most vulnerable groups of the population, and provide assistance in forms of grants rather than loans.

74. The European Joint Research Center highlighted the need to take traditional management approaches into account in the production of data and information and stressed the need to consider the needs of decision makers in receiving data analysis when designing data management.

75. OSCE highlighted the examples of its work on the ground to support water governance and transboundary water cooperation, in particular to support bilateral cooperation of the Republic of Moldova and Ukraine in the

Dniester River basin. It also highlighted its innovative capacity building activities, including a new e-learning course on water diplomacy and integration of water norms in peace building, developed in partnership with Geneva Water Hub, and efforts to promote active engagement of women in water management through a mentorship and career development program launched in partnership with CAREC and SIWI.

76. Switzerland stressed the need to mobilize adequate public and private financial resources and explore financial innovations and highlighted its Blue Peace Financing Initiative to facilitate development of transboundary multisectoral joint investment plans. It also stressed the urgency of placing water at the centre of global agenda and called upon other countries to support the proposal on the appointment of a UN Secretary General's Special Envoy on Water.

77. A representative of UN Global Compact's CEO Water Mandate informed of the Water Resilience Coalition founded in 2020 as part of CEO Water Mandate. The coalition aims to raise the ambition of companies and elevate global water stress to the top of the corporate agenda to preserve the world's freshwater resources through collective action in water-stressed basins. With this coalition, companies with some of the largest water footprints are committing to net positive water impact in 100 basins by 2050. Net positive water impact includes: excellence in corporate water stewardship, healthy and resilient watersheds; and climate resilient access to water, sanitation and hygiene. Core strategies of this initiative are to scale up successful projects via collective action in 100 basins, apply business expertise and innovations, and increase investment in water via innovative financing. A representative of CEO Water Mandate called for a more systemic approach to water which sees water as an important enabler to achieving other SDGs. Such an approach would help make water more relevant to the business sector.

IX. Closing session

78. The Chair presented a short version of the draft Chair's summary, whose final version is found in the annex to this document.

79. A representative of the Department of Economic and Social Affairs (DESA) provided an update on the preparations and process for the 2023 Water Conference. Proposals for the themes for the five interactive dialogues at the 2023 Conference are being submitted by Member States and stakeholders. The themes are to be determined by November 2022 and the concept papers are scheduled to be ready by mid-February 2023. The Pan-European Regional Preparatory Meeting can provide crucial input to the 2023 Conference in several ways. It will provide input to the Secretary General's report due at the 77th session of the General Assembly. Regional meetings provide an important regional component to the topics of interactive dialogues and concept papers to be prepared for each interactive dialogue. Additionally, there will be plenary meetings, special events and side events during the 2023 Conference where the ideas and messages from the regional meetings can be presented.

Annex

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 facilities³ and 140 thousand practice open defecation, making them vulnerable to water-related diseases. Annually, 2,700 people in the region die from WASH-related diarrheal diseases. Making progress in 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

³ 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.

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.