

## Session 8

# Increasing resilience to climate change

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6th Session of the

**Meeting of the Parties to the Protocol on Water and Health**

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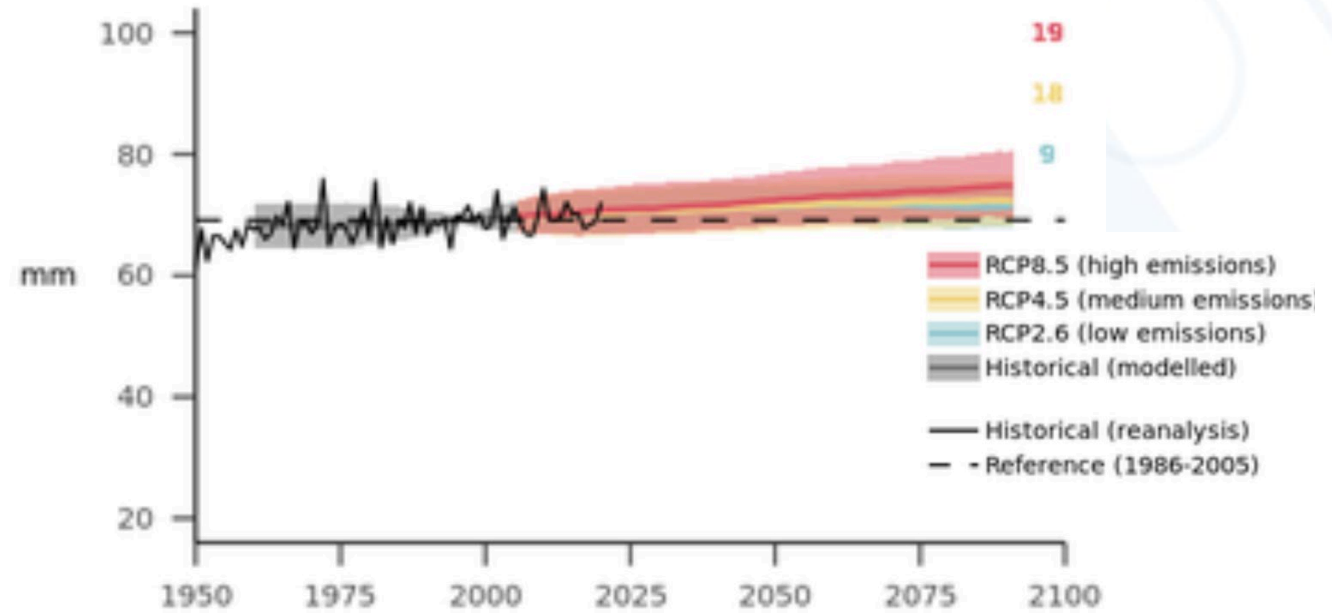
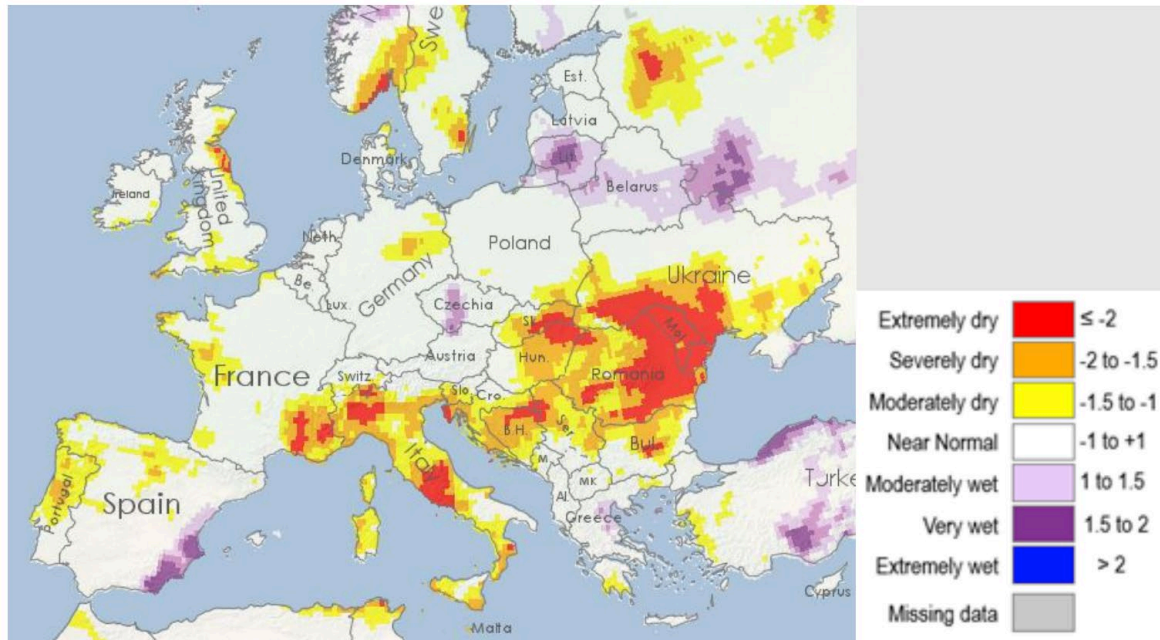
European Commission

# Drought in Europe July 2022

European Environment Agency



## Maximum consecutive five-day precipitation



(some) Hazardous events  
CC related





European  
Commission

# Drought in Europe July 2022

- ✓ **Europe is experiencing its worst drought in at least 500 years**
- ✓ Severe precipitation deficit has impacted river discharges widely across Europe.
- ✓ Reduced stored water volume has had severe impacts on the energy sector for both hydropower generation and cooling systems of other power plants.
- ✓ Competition for water resources is high and started earlier than usual.
- ✓ Water and heat stresses have reduced crop yield and crop yield potential.
- ✓ Water supply may be compromised in the coming months. Drier than normal conditions are forecasted for the next three months in large areas of Europe.

## Hazardous events: nature, impacts and frequency

European Environment Agency



## Heavy precipitation and river floods

- ✓ Too much rain falling too fast - floods and landslides.
- ✓ **A tenth of Europe's urban population is currently living in flood-risk zones**
- ✓ Floods can be deadly and costly, destroying buildings, infrastructure (transport, energy, communication) and livelihoods for all in their path.
- ✓ Between 1980 and 2017, floods have taken some 4,300 lives and cost Europe's economy more than €170 billion - nearly a third of the total damage from natural hazards
- ✓ Heavy precipitation events causing dangerous flood are also influenced by non-climatic factors, such as land use, changes to river basins and natural water flow characteristics (dams, changes of river beds, sealing surfaces) and urban planning



CC driver	Hazards	
Decrease in precipitation: drought	Water Availability Chemical Microbial Virological	Reduction in raw water availability for drinking water supplies, reduced flow in rivers, less dilution/increased concentration of pollutants in water, challenge to hygiene practices
Increase in precipitation and severe weather: flooding		Pollution of wells, inundation of wells, inaccessibility of water sources, flooding of latrines, damage to infrastructure, landslides around water sources, sedimentation and turbidity, challenges to sustainability of sanitation and hygiene behaviors, and waterborne diseases
Increase in temperatures: heatwaves		Damage to infrastructure, increase in pathogens in water leading to increased risk of disease
Sea level rise: flooding and saline intrusion into freshwater aquifers		Reduction in availability of drinking water, with high impacts on quality
Increase in temperatures: melting/thawing of glaciers, snow, sea ice and frozen ground	Water Availability	Seasonality of river flows affected, leading to reduced water availability in summer

## Hazards



TITLE : 5. a). Protocol on Water and Health to the 1992 Convention on the Protection and Use of Transboundary Watercourses and International Lakes. London, 17 June 1999

*why our work is useful and special*

## Climate change and the Protocol's legal provisions

### Article 6

#### TARGETS AND TARGET DATES

1. In order to achieve the objective of this Protocol, the Parties shall pursue the aims of:

- (a) Access to drinking water for everyone;
- (b) Provision of sanitation for everyone within a framework of integrated water-management systems aimed at sustainable use of water resources, ambient water quality which does not endanger human health, and protection of water ecosystems.

2. For these purposes, the Parties shall each establish and publish national and/ or local targets for the standards and levels of performance that need to be achieved or maintained for a high level of protection against water-related disease. These targets shall be periodically revised. In doing all this, they shall make appropriate practical and/ or other provisions for public participation, within a transparent and fair framework, and shall ensure that due account is taken of the outcome of the public participation. Except where national or local circumstances make them irrelevant for preventing, controlling and reducing water-related disease, the targets shall cover, inter alia:

- (a) The quality of the drinking water supplied, taking into account the Guidelines for drinking-water quality of the World Health Organization;
- (b) The reduction of the scale of outbreaks and incidents of water-related disease;
- (c) The area of territory, or the population sizes or proportions, which should be served by collective systems for the supply of drinking water or where the supply of drinking water by other means should be improved;
- (d) The area of territory, or the population sizes or proportions, which should be served by collective systems of sanitation or where sanitation by other means should be improved;
- (e) The levels of performance to be achieved by such collective systems and by such other means of water supply and sanitation respectively;
- (f) The application of recognized good practice to the management of water supply and sanitation, including the protection of waters used as sources for drinking water;
- (g) The occurrence of discharges of:
  - (i) Untreated waste water; and
  - (ii) Untreated storm water overflows from waste-water collection systems to waters within the scope of this Protocol;
- (h) The quality of discharges of waste water from waste-water treatment installations to waters within the scope of this Protocol;
- (i) The disposal or reuse of sewage sludge from collective systems of sanitation or other sanitation installations and the quality of waste water used for irrigation purposes, taking into account the Guidelines for the safe use of waste water and excreta in agriculture and aquaculture of the World Health Organization and the United Nations Environment Programme;
- (j) The quality of waters which are used as sources for drinking water, which are generally used for bathing or which are used for aquaculture or for the production or harvesting of shellfish;
- (k) The application of recognized good practice to the management of enclosed waters generally available for bathing;
- (l) The identification and remediation of particularly contaminated sites which adversely affect waters within the scope of this Protocol or are likely to do so and which thus threaten to give rise to water-related disease;
- (m) The effectiveness of systems for the management, development, protection and use of water resources, including the application of recognized good practice to the control of pollution from sources of all kinds;
- (n) The frequency of the publication of information on the quality of the drinking water supplied and of other waters relevant to the targets in this paragraph in the intervals between the publication of information under article 7, paragraph 2.

3. ....



# Protocol and Ostrava Declaration



Sixth Ministerial Conference  
on Environment and Health

Ostrava, Czech Republic  
13–15 June 2017

**COMPENDIUM OF POSSIBLE ACTIONS TO ADVANCE  
THE IMPLEMENTATION OF THE OSTRAVA DECLARATION**

*Better Health. Better Environment. Sustainable Choices.*

## Enhancing action on environment and health at the national level – developing national portfolios for action

Ensuring universal, equitable and sustainable access to safe drinking-water, sanitation and hygiene for all and in all settings

**!** Overall objective: providing sufficient amounts of safely managed drinking-water, ensuring safely managed sanitation from collection to disposal or reuse of wastewater, and sustaining the availability and quality of freshwater resources, especially in regions that experience water stress, high-usage patterns and competing demands accelerated by the consequences of climate change

Actions: efficient use of water, safe reuse of wastewater: water safety plan (WSP) and sanitation safety plan (SSP) in policies and regulations

climate-resilient WASH services - responsive to the effects of climate change impacting variability, availability and quality of freshwater resources, as well as to extreme weather events

strengthening disaster risk governance, increasing disaster preparedness

# 1. Past outcomes

- ✓ Area of work on increasing resilience to climate change: re-introduced 5 years ago, previously Guidance on water supply and sanitation prepared by Task Force on extreme weather events in 2010
- ✓ Dialogue and promotion of the need for consideration of climate change aspects in the area of water, sanitation and health
- ✓ Focus on extreme weather events and water scarcity
- ✓ Work implemented in synergy with the programme area 5 on safe and efficient management of water supply and sanitation systems
- ✓ Cooperation with the global climate programme area of the Water Convention and its Task Force on Water and Climate
- ✓ 2 International workshops (1 Joint PA 5 & 7): State of the art of Drinking Water Supply and Sanitation with special attention to Climate Change Challenges and global workshop on increasing resilience at national and transboundary level with Water Convention in March 2021



## 2. Progress made – Special Session on increasing resilience to climate change and the Protocol on Water and Health

### Thirteenth Meeting of the Working Group on Water and Health (Geneva, virtual, 13-14 May 2022)

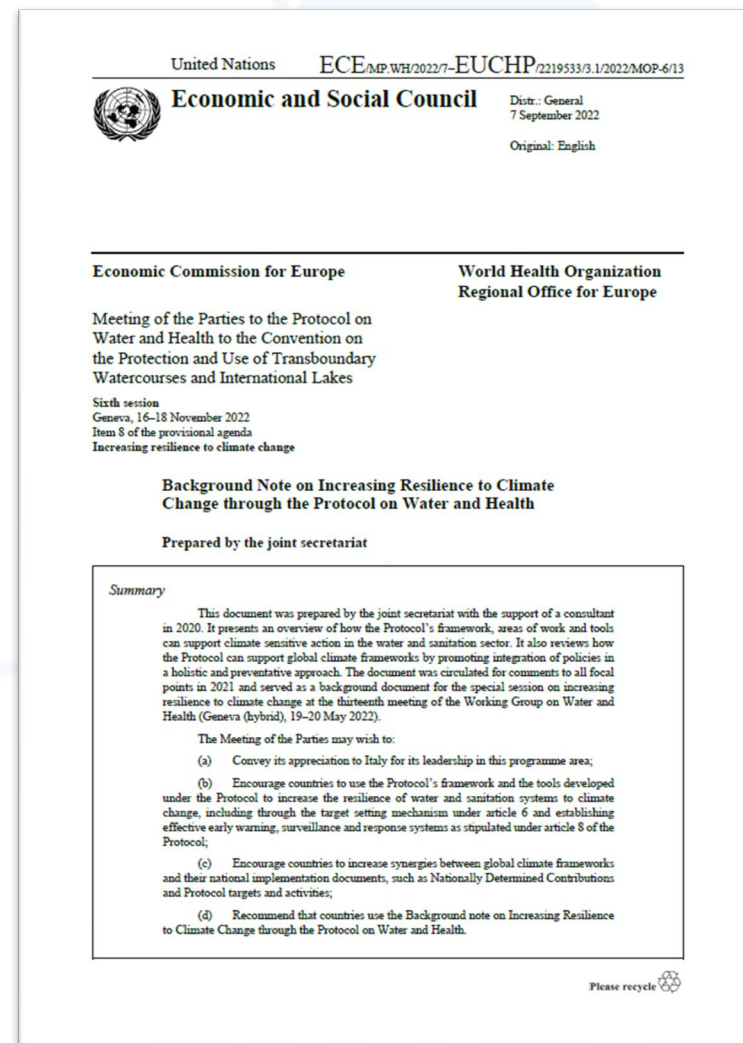
- Keynote speech on the impacts of climate change on water resources and water and sanitation services, as well as its implications for water-related infectious and non-communicable diseases;
- Presentation of the Background Note on Increasing Resilience to Climate Change through the Protocol on Water and Health;
- Panel discussion involving Luxembourg, Serbia and Spain on how these Parties have utilized the Protocol's framework to strengthen efforts to increase resilience to climate change at national and/or local level.





## 2. Background Note on Increasing Resilience to Climate Change through the Protocol on Water and Health

- Climate-induced challenges across all Member States of the UNECE/WHO European Region on the WASH sector:
- **Droughts:** Reduced flow in rivers leading to an increased concentration of pollutants in water etc.
- **Flooding:** Pollution and inundation of wells, inaccessibility of water sources, infrastructure damage, landslides around water sources etc.



## 2. Background Note on Increasing Resilience to Climate Change through the Protocol on Water and Health

### How the Protocol supports global frameworks

#### SDG 13: Take urgent action to combat climate change and its impacts



- Protocol related targets to expand and upgrade drinking water supply and sanitation infrastructure and services are expected to consider the need to ensure resilience to climate related risks (**SDG 13.1**)
- The Protocol promotes the identification of climate risks to the water supply and sanitation sector so that they are addressed in sectoral national and subnational policies (**SDG 13.2**)
- In cooperation with the Water Convention and different PAs, the Protocol could promote stakeholder discussions and facilitate workshops on climate resilience of water and sanitation (**SDG 13.3**)

### Sendai Framework





## **Objectives:**

- ✓ to support strengthening resilience and preparedness to water-related disasters, extreme events and other climate change-induced effects at the policy, strategic and practitioner levels
- ✓ focus on building awareness, collecting evidence, preparing guidance and strengthening capacities in addressing climate change impacts on water resources and water supply and sanitation services, as well as promoting linkages with global climate processes and related national planning documents

### 3. Suggested Future Activities for 2023-2025

- ✓ Events at the regional and subregional levels on strengthening the climate resilience of the water and sanitation sectors and services, including preparing for and responding to extreme events, through a **strategic round table and workshops on exchanging experience and promoting good practices**.
- ✓ One workshop organized **together with the Water Convention**
- ✓ Events exploring **interlinkages with other sectors and the benefits of integrated action across sectors** (e.g regulatory agencies)
- ✓ Activity in **cooperation with programme area 5** (*Safe management of water supply and sanitation systems*)
- ✓ Develop guidance/collection of **good practices on strengthening the climate resilience of water and sanitation sectors and services, across other relevant sectors**
- ✓ Work will build on the **Guidance on Water Supply and Sanitation in Extreme Weather Events**
- ✓ Building capacity to promote the **adoption of good practices in strengthening the climate resilience of the water and sanitation sectors and services**, including in relation to climate adaptation planning and global climate processes
- ✓ Analysis of the **relation between Nationally Determined Contributions, National Adaptation Plans and targets set under the Protocol** and the development of recommendations on how to increase those linkages
- ✓ Development of a **document or tool on financing climate-resilient drinking water and sanitation services, including in relation to investment planning**

# Thank you for your attention!

