

# TRANSBOUNDARY COOPERATION AMID CHALLENGES OF CLIMATE CHANGE

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**“Water is the driving force in nature.”**  
*Leonardo da Vinci*



# 2030 Agenda for Sustainable Development



This Agenda is a plan of action for people, planet and prosperity.

17 Sustainable Development Goals and 169 targets

SDG 6: “Ensure availability and sustainable management of water and sanitation for all”.



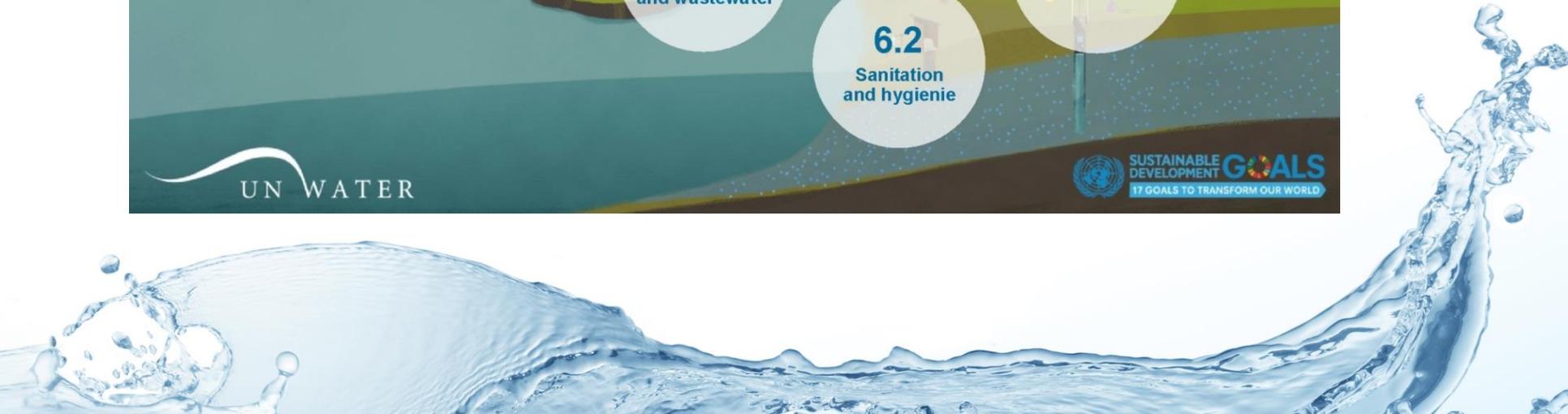
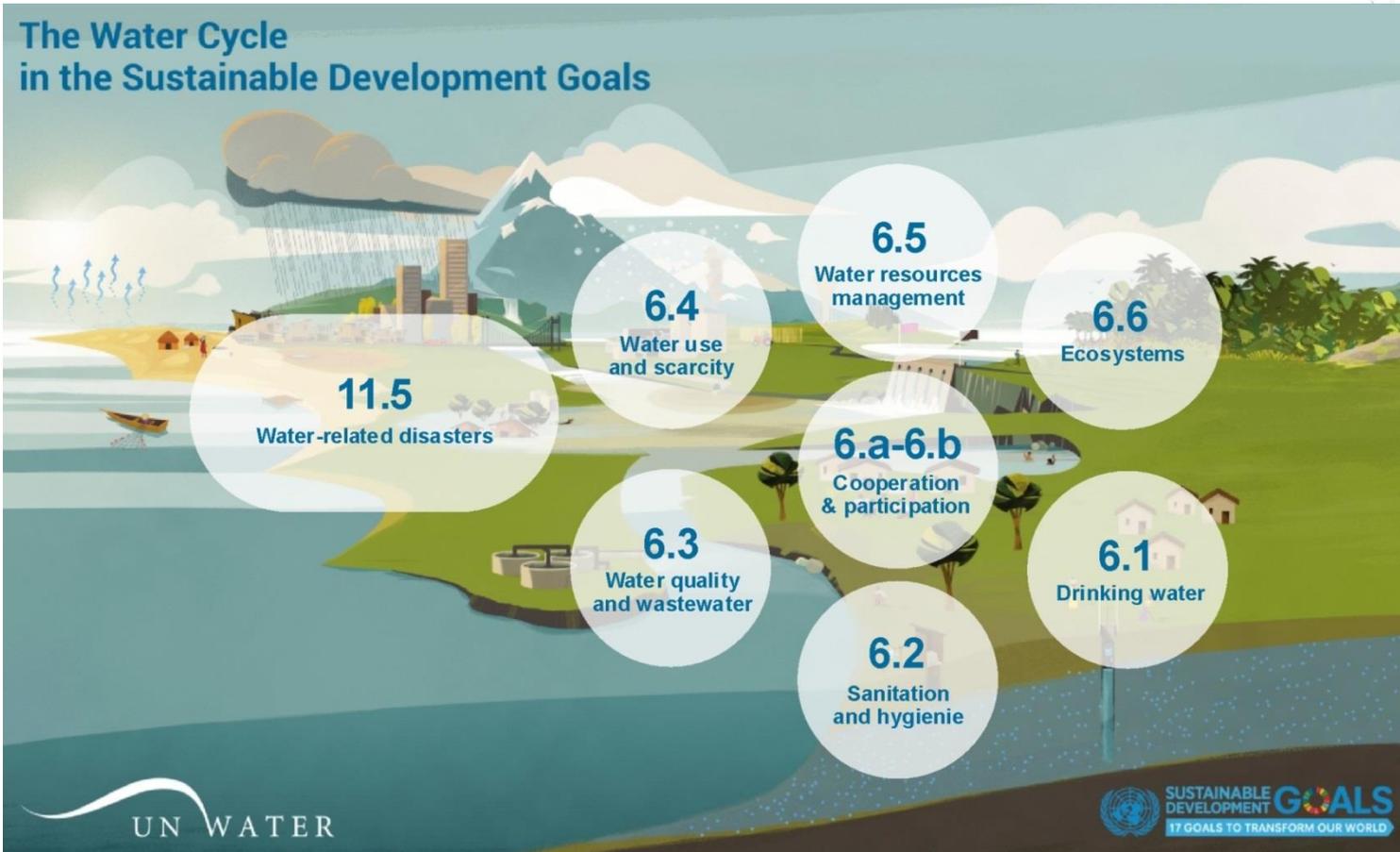
# Sustainable Development Goal 6.



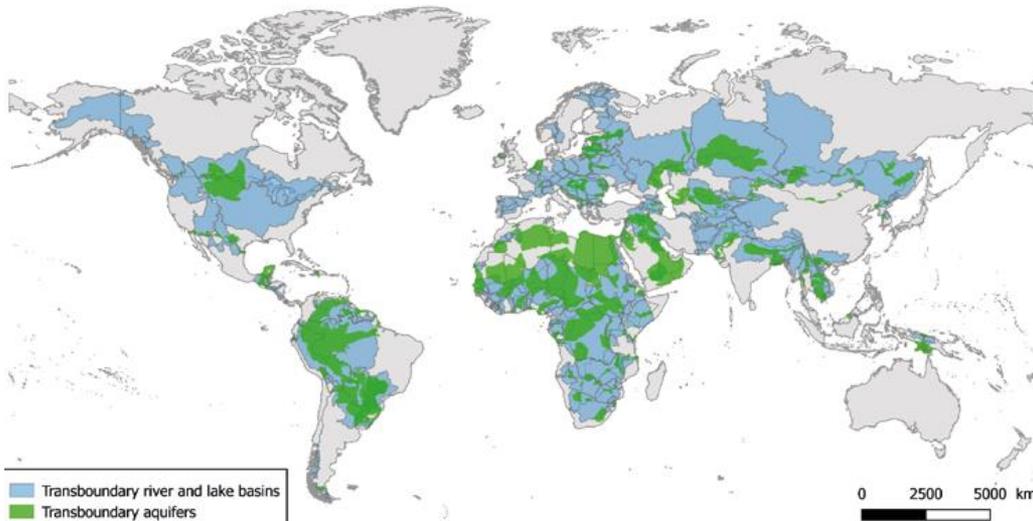
## Targets

- By 2030, achieve universal and equitable access to safe and affordable drinking water for all
- By 2030, achieve access to adequate and equitable sanitation and hygiene for all and end open defecation, paying special attention to the needs of women and girls and those in vulnerable situations
- By 2030, improve water quality by reducing pollution, eliminating dumping and minimizing release of hazardous chemicals and materials, halving the proportion of untreated wastewater and substantially increasing recycling and safe reuse globally
- By 2030, substantially increase water-use efficiency across all sectors and ensure sustainable withdrawals and supply of freshwater to address water scarcity and substantially reduce the number of people suffering from water scarcity
- **By 2030, implement integrated water resources management at all levels, including through transboundary cooperation as appropriate**
- By 2020, protect and restore water-related ecosystems, including mountains, forests, wetlands, rivers, aquifers and lakes
- By 2030, expand international cooperation and capacity-building support to developing countries in water- and sanitation-related activities and programmes, including water harvesting, desalination, water efficiency, wastewater treatment, recycling and reuse technologies
- Support and strengthen the participation of local communities in improving water and sanitation management

# Sustainable Development Goal 6.



# Transboundary river and lake basins, transboundary aquifers and international borders



- 40 % of the world's population lives in river and lake basins that comprise two or more countries
- 90 % lives in countries that share basins
- 263 transboundary lake and river basins cover nearly one half of the Earth's land surface
- 145 States include territory within such basins 30 countries lie entirely within them
- 2 billion people worldwide depend on groundwater, which includes approximately 300 transboundary aquifer systems

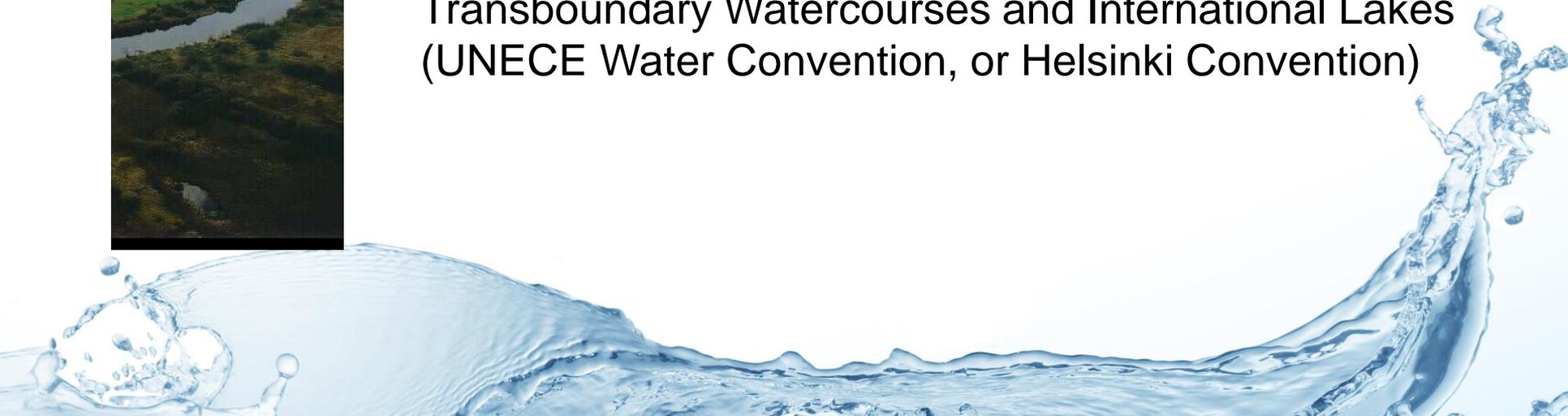
# Legal Instruments



## Two framework multilateral instruments



- 1997 Convention on the Law of the Non-navigational Uses of International Watercourses (UN Watercourses Convention, or New York Convention)
- 1992 Convention on the Protection and Use of Transboundary Watercourses and International Lakes (UNECE Water Convention, or Helsinki Convention)



# UNECE Water Convention



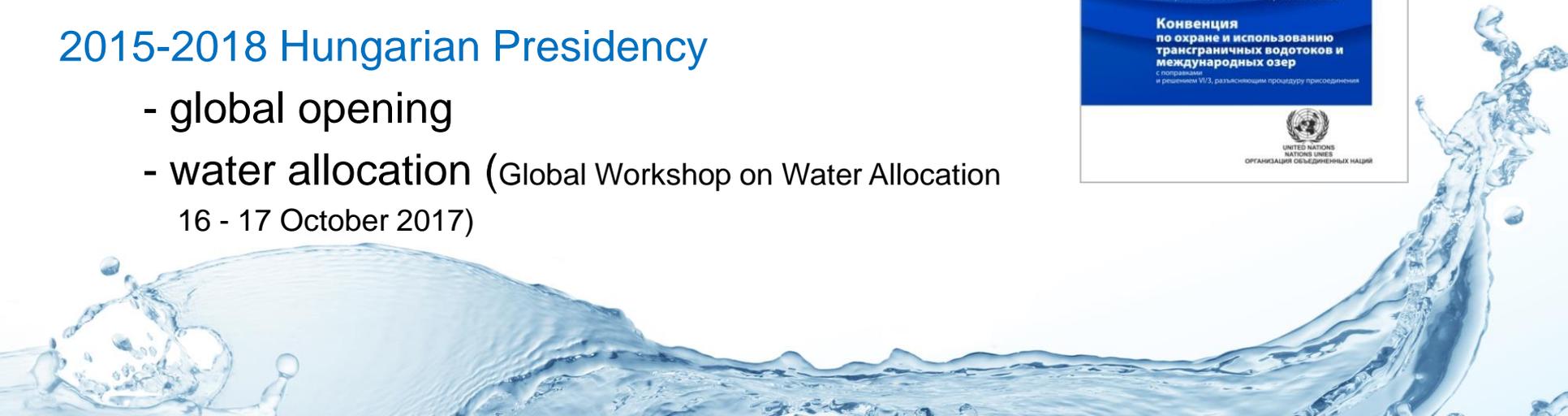
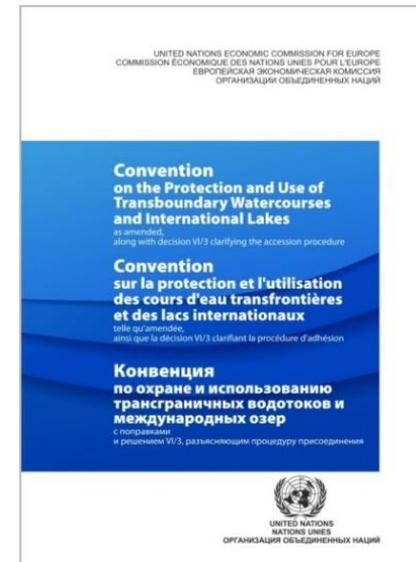
Objective: to protect and ensure the quantity, quality and sustainable use of transboundary water resources by facilitating cooperation

The Convention is based on three main pillars:

- Principle of prevention
- Principle of reasonable and equitable utilization
- Principle of cooperation

## 2015-2018 Hungarian Presidency

- global opening
- water allocation (Global Workshop on Water Allocation  
16 - 17 October 2017)



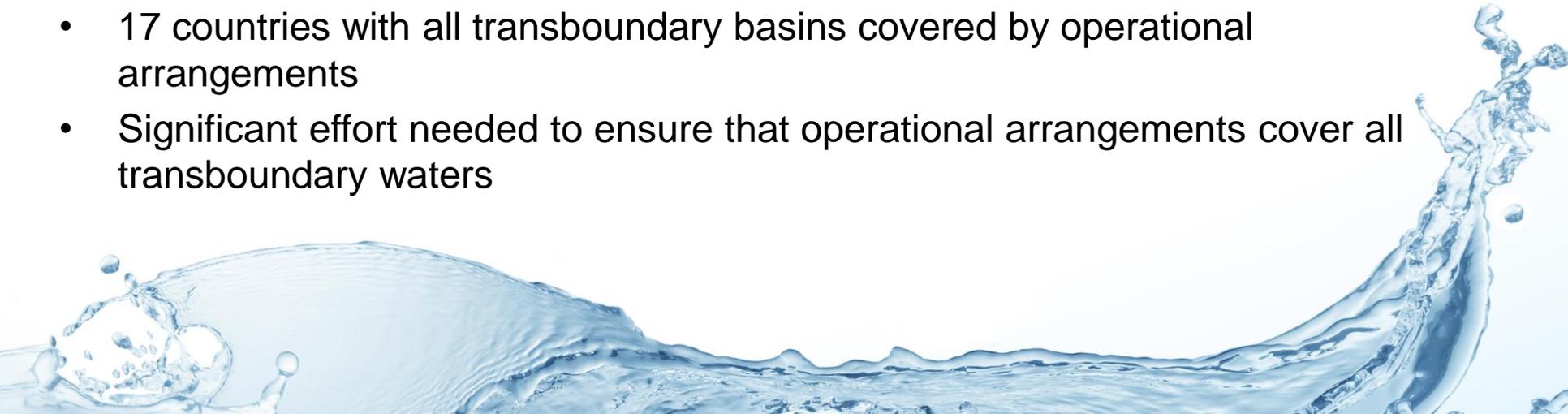
# Progress on Transboundary Water Cooperation



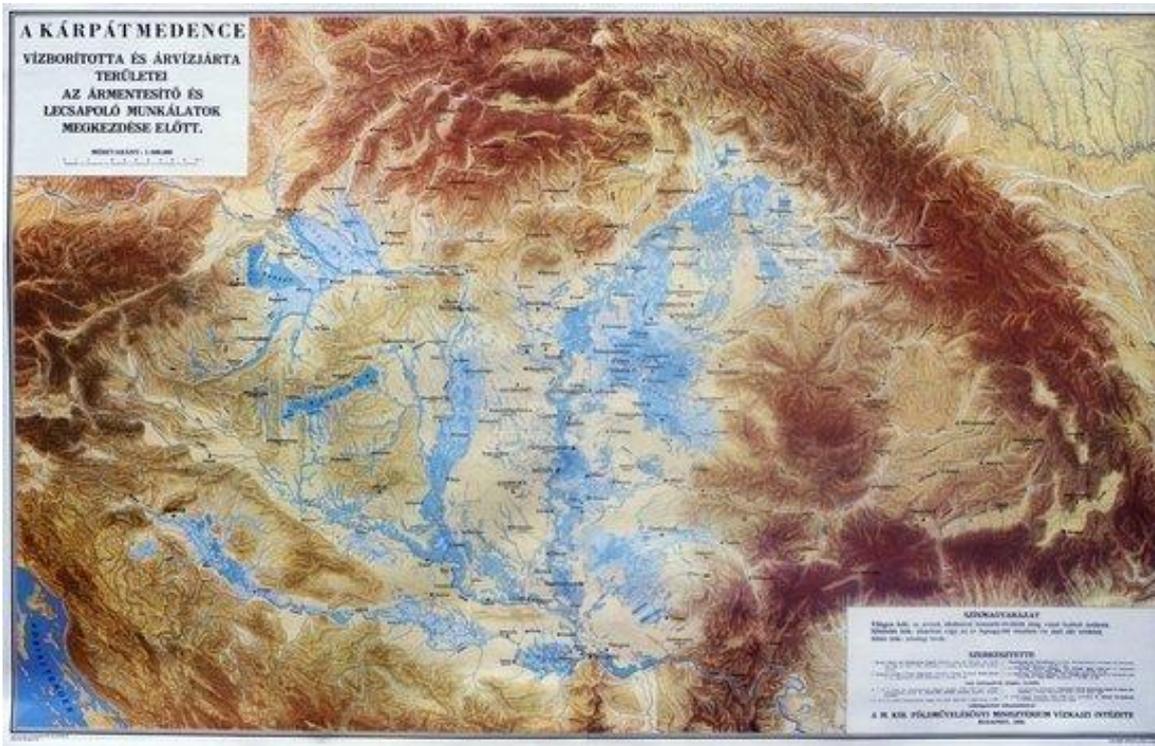
## SDG indicator 6.5.2 for transboundary cooperation

Measures the proportion of the transboundary basin area - river lake or aquifer – within a country with operational arrangement for water cooperation in place

- 107 country responded (out of 153 countries sharing transboundary waters)
- 59% average of the national percentage of transboundary basins covered by an operational arrangement
- 17 countries with all transboundary basins covered by operational arrangements
- Significant effort needed to ensure that operational arrangements cover all transboundary waters



# Hungary in the Carpathian Basin



84% < 200 mBf  
(in the bottom  
of Carpathian  
basin)

95% of surface  
waters  
originated  
abroad

Floods, excess  
water, draughts

Continental  
weather effects



# Hydro-geographical conditions



## 24 rivers entering into the country



## 3 rivers leaving the country

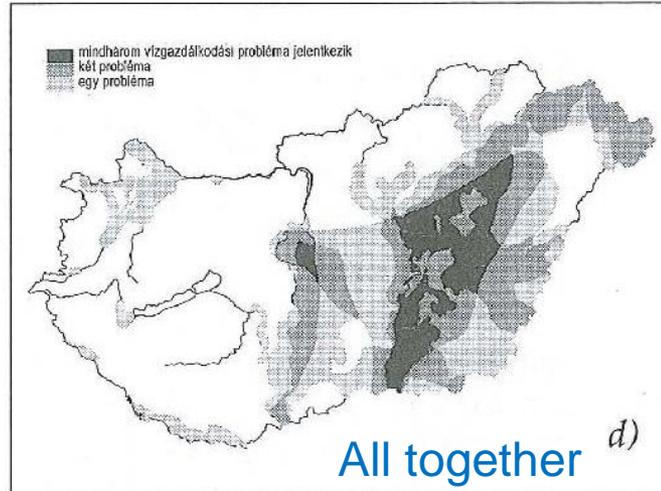
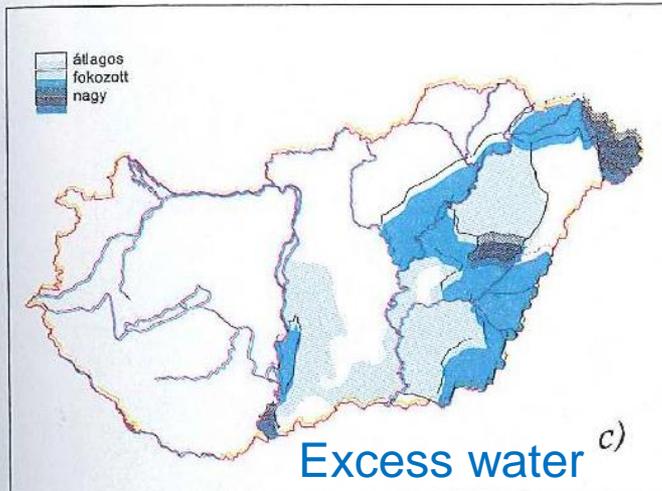
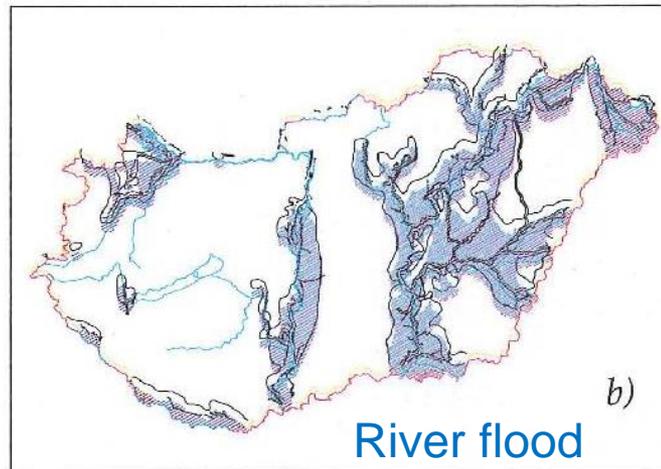
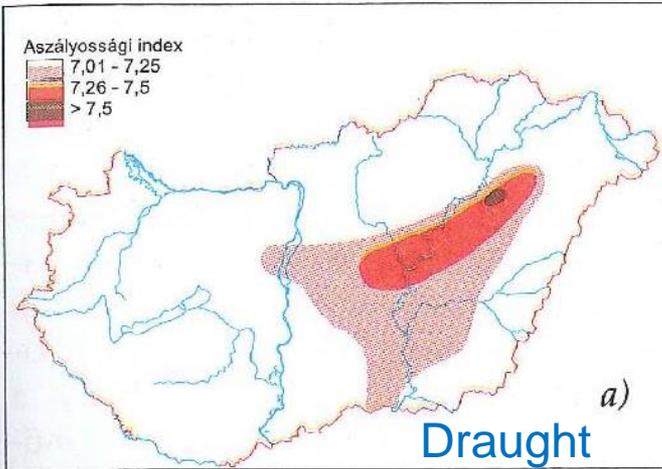


Too much water



Too little water





**Floods**  
 Every 2-3 years  
 minor  
 Every 5-6 years  
 significant  
 Every 10-12 years  
 extreme

**Excess water**  
 Every 2-3 years

**Droughts**  
 Every 3-5 years



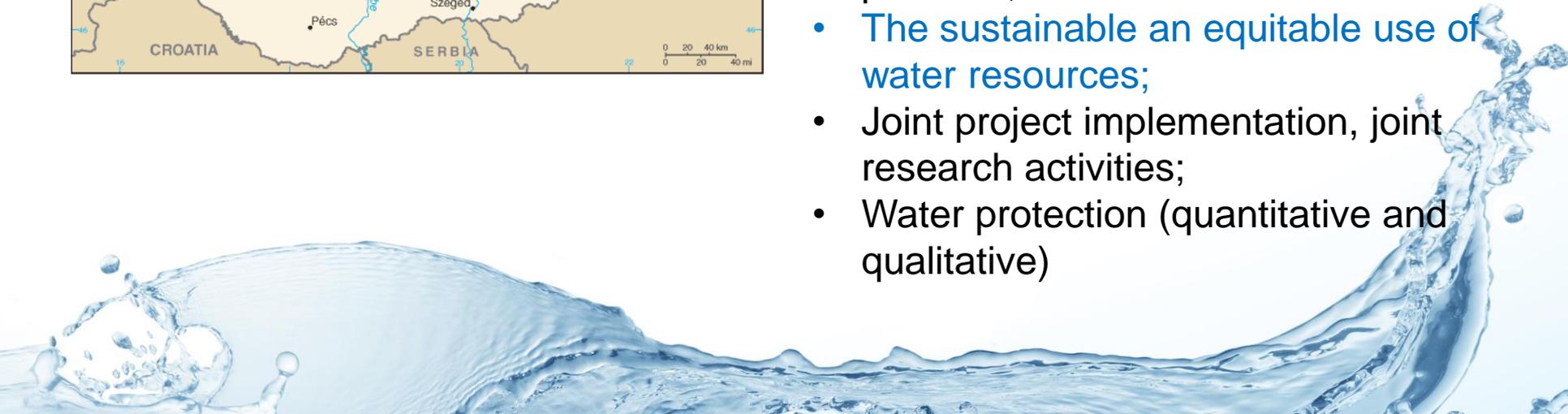
# Bilateral transboundary water cooperation



Bilateral transboundary water cooperation agreements with all neighboring countries



- Prevention of floods, droughts, river training;
- Hydrological forecasting, data exchange on quality and quantity;
- River basin management planning;
- Flood risk management planning;
- Prevention and mitigation of accidental transboundary water pollution;
- **The sustainable and equitable use of water resources;**
- Joint project implementation, joint research activities;
- Water protection (quantitative and qualitative)





## *Romania*

Low water Regulation exist (II. Chapter Art 7. /19/).

## *Serbia*

No relevance to water allocation in the agreement.

## *Croatia*

No relevance to water allocation in the agreement.

## *Slovenia*

No relevance to water allocation in the agreement.

## *Austria*

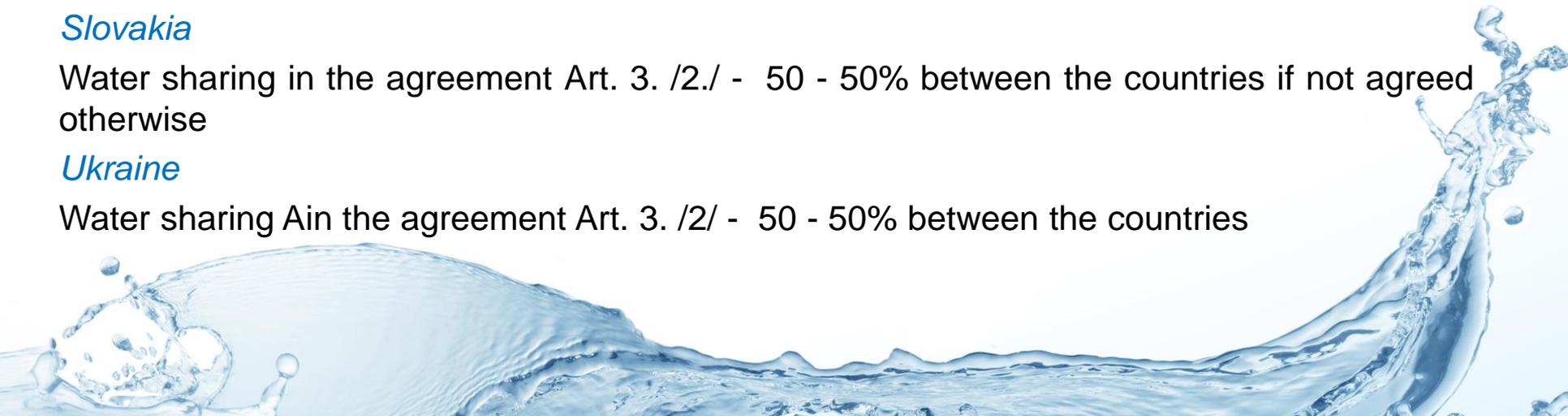
Water sharing in the agreement Art. 2. /5./ and /6./ - 50 - 50% between the countries, upstream country can not decrease the water flow more that 1/3 of the natural flow.

## *Slovakia*

Water sharing in the agreement Art. 3. /2./ - 50 - 50% between the countries if not agreed otherwise

## *Ukraine*

Water sharing in the agreement Art. 3. /2./ - 50 - 50% between the countries



# Hungary in the Danube Basin



Danube River Basin District: Overview

MAP 1



Danube is the most international river basin

800,000 km<sup>2</sup>  
19 countries  
81 million people

This ICPRD product is based on national information provided by the Contracting Parties to the ICPRD (AT, BA, BG, CZ, DE, HR, HU, MD, RO, RS, SI, SK, UA) and CH, except for the following: EuroGlobeMap v2.1 from EuroGeographics was used for national borders of AT, CZ, DE, HR, HU, MD, RO, SI, SK and UA. ESRD data was used for national borders of AL, ME, MK, Shuttle Radar Topography Mission (SRTM) from USGS Seamless Data Distribution System was used as topographic layer, data from the European Commission (Joint Research Centre) was used for the outer border of the DRBD of AL, IT, ME and PL.



# Danube River Protection Convention

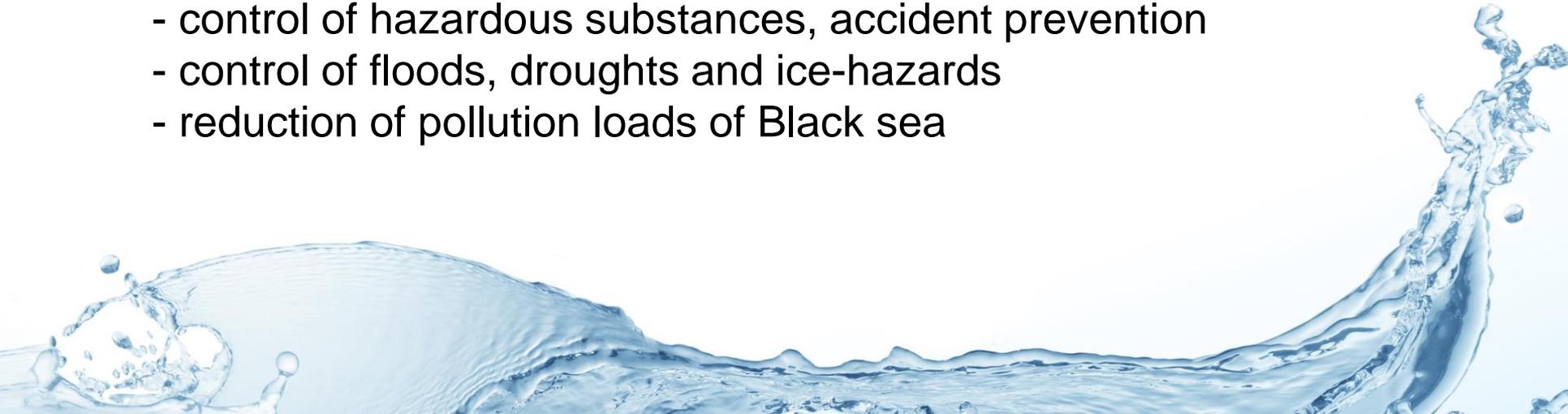


**Legal frame for cooperation to assure protection of water and ecological resources and their sustainable use in the Danube River Basin.**

**Signed: 29 June 1994, Sofia**

## The main objectives of the Convention:

- sustainable and equitable water management
- conservation and rational use of surface and groundwater
- control of hazardous substances, accident prevention
- control of floods, droughts and ice-hazards
- reduction of pollution loads of Black sea



# Contracting Parties



- Germany



- Austria



- Czech Republic



- Slovakia



- Hungary



- Slovenia



- Croatia



- Bosnia & Herzegovina



- Serbia



- Montenegro



- Romania



- Bulgaria



- Rep. of Moldova



- Ukraine



- European Union



# ICPDR and the EU Water Framework Directive



The International Commission for the Protection of the Danube River (ICPDR) works to ensure the sustainable and equitable use of waters in the Danube River Basin. [2019 Hungarian presidency.](#)

- Implementation legal requirement for 8 EU Member States
- Political commitment of 6 Non-EU Member States to work towards a coordinated [Danube River Basin Management Plan](#)

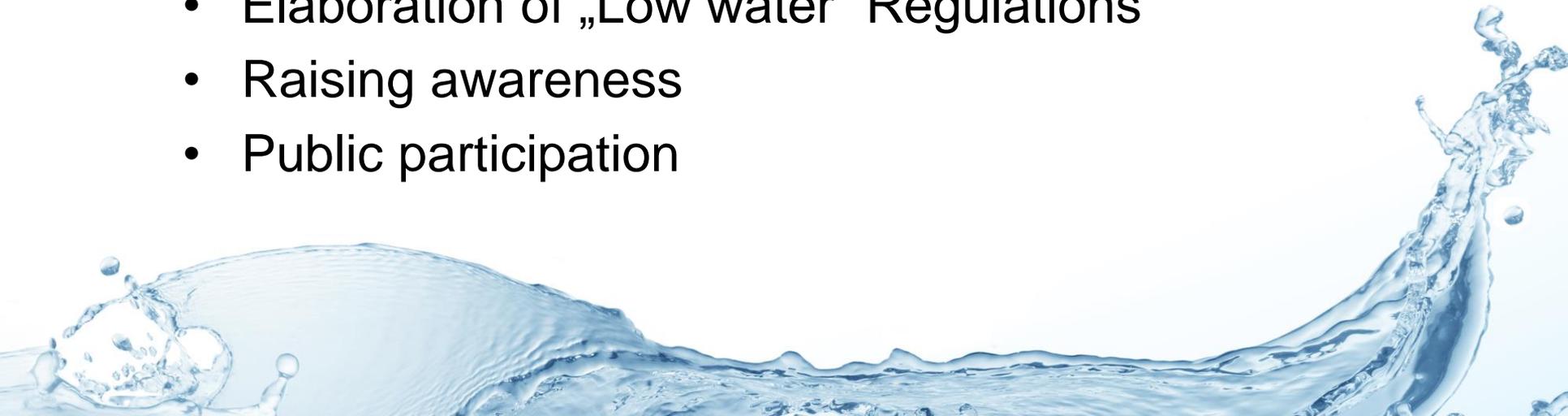
## **Milestones:**

- Adoption of 1st Danube River Basin Management Plan according to WFD requirements in December 2009.
- Adoption of 2nd Danube River Basin Management Plan (2015-2021) and the Danube Flood Risk Management Plan (2015-2021) in February 2016.

# Future tasks



- Climate change mitigation, scenarios for the hydrological changes
- Flood risks management
- Risk assessment related to the water scarcity
- Early warning system
- Identification of present and future water demands
- Elaboration of „Low water” Regulations
- Raising awareness
- Public participation





Thank you for your kind attention!

