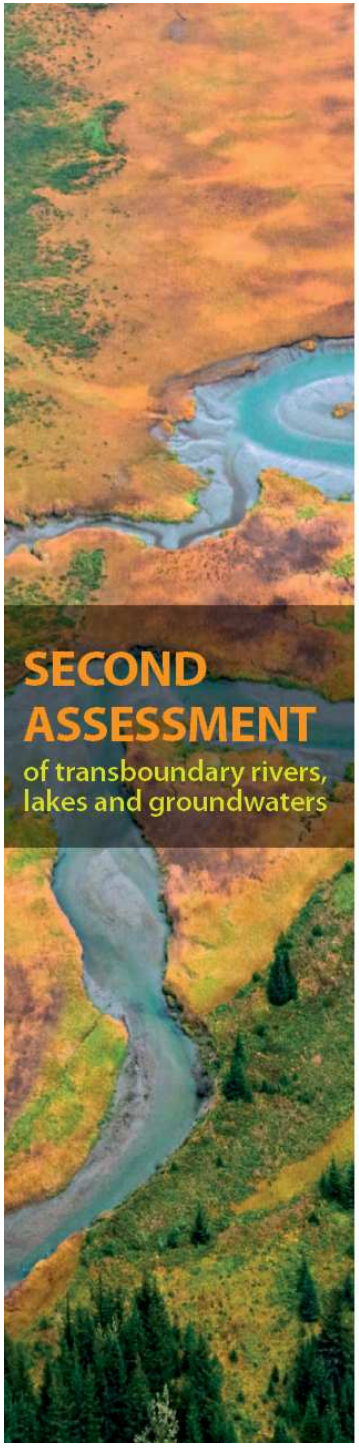
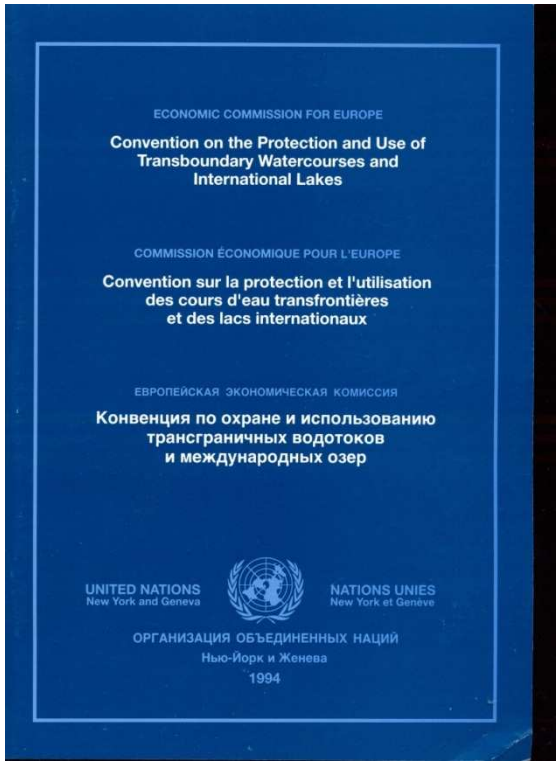



# Assessing transboundary rivers, lakes and groundwaters continent-wide

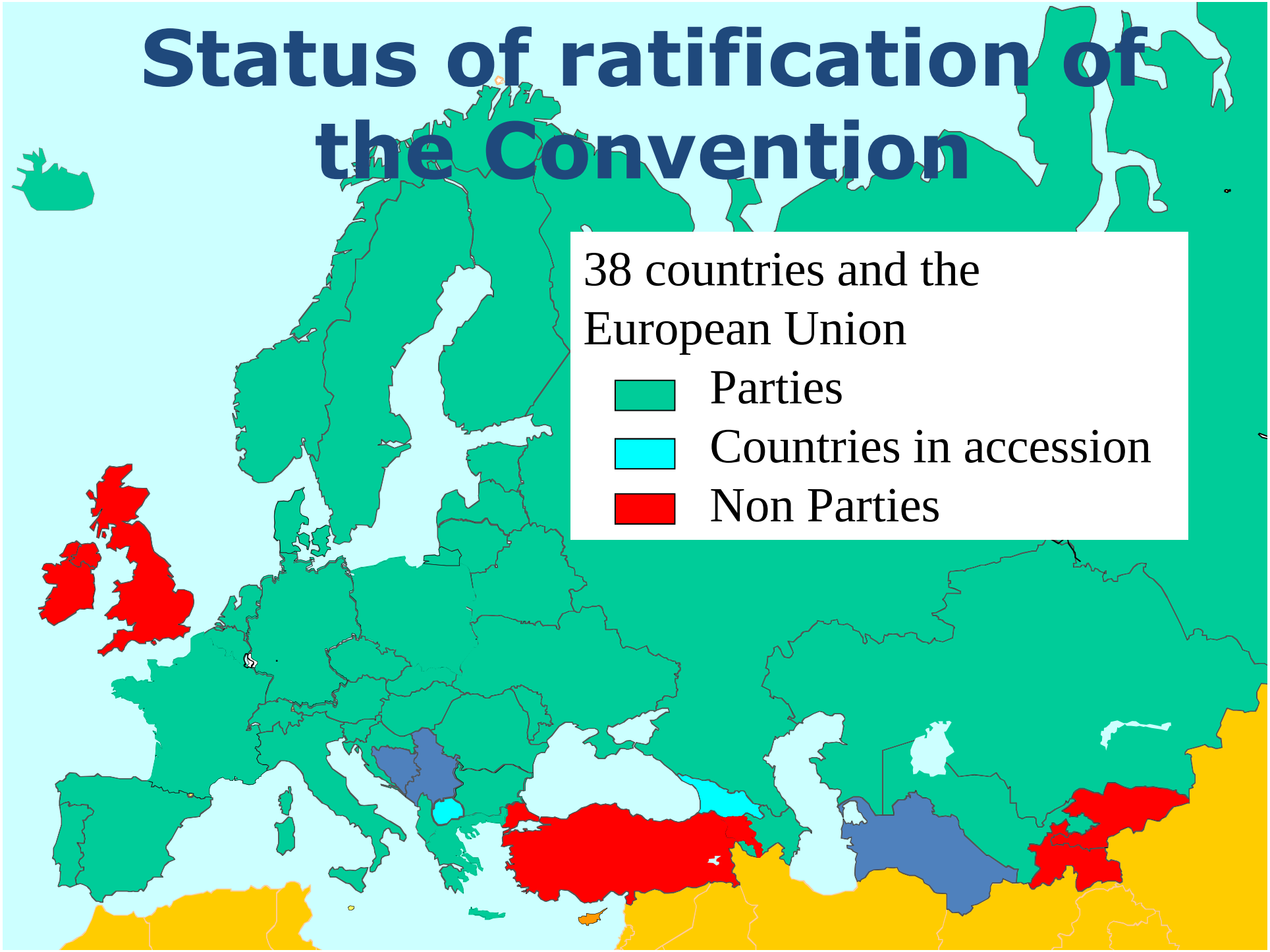
**Francesca Bernardini**
**Swiss permanent mission**

# 1992 UNECE Water Convention




- Negotiated in 1990-1992 through an intergovernmental process under the auspices of UNECE, largely relying on ILC Draft Articles process
- Negotiated originally as regional instrument
- Signed on 1992, in force since 1996
- Amended in 2003 to allow accession by countries outside the UNECE region
- Amendment entered into force in 2013=> many non-UNECE countries preparing for accession

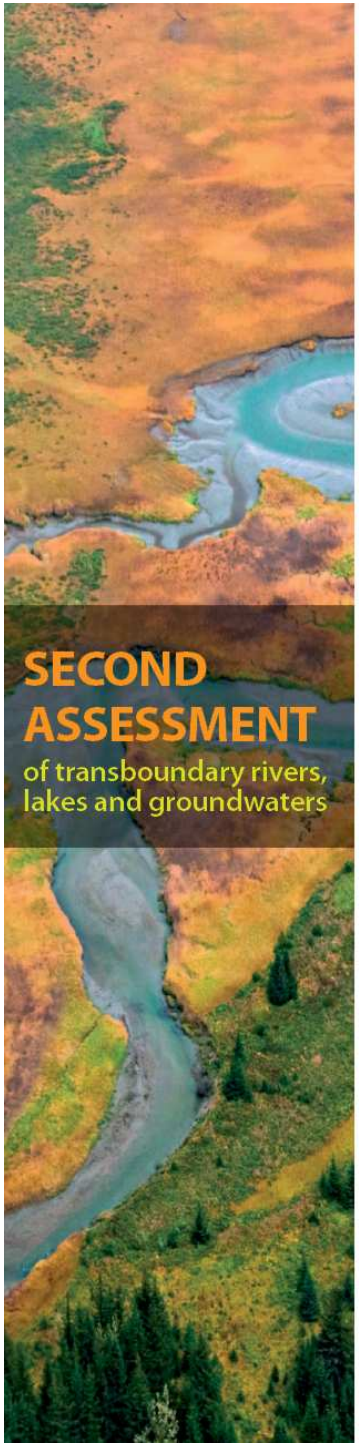
# Status of ratification of the Convention



# Main obligations under the Convention

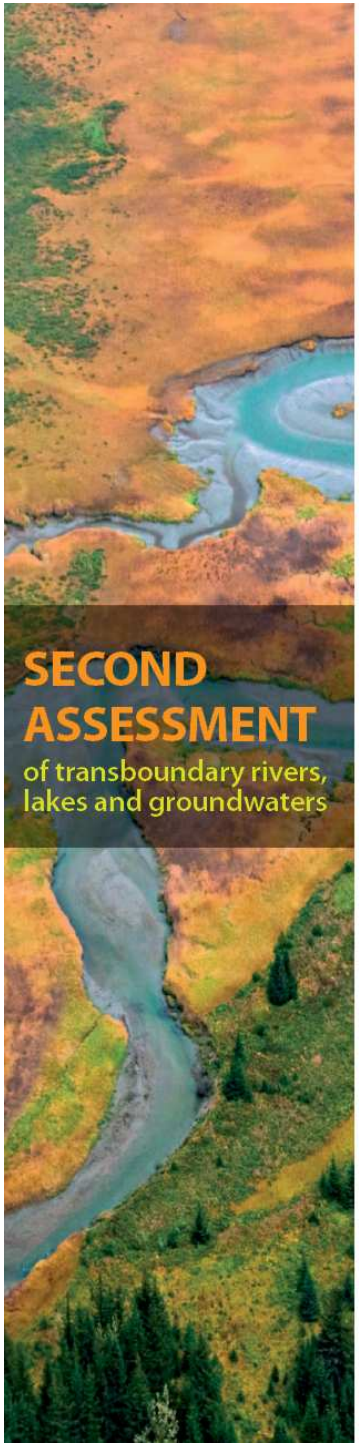
- Protection of transboundary waters by preventing, controlling and reducing transboundary impacts
- Reasonable and equitable use of transboundary waters
- Obligation to cooperate through agreements and joint institutions

=> Overall objective of sustainability



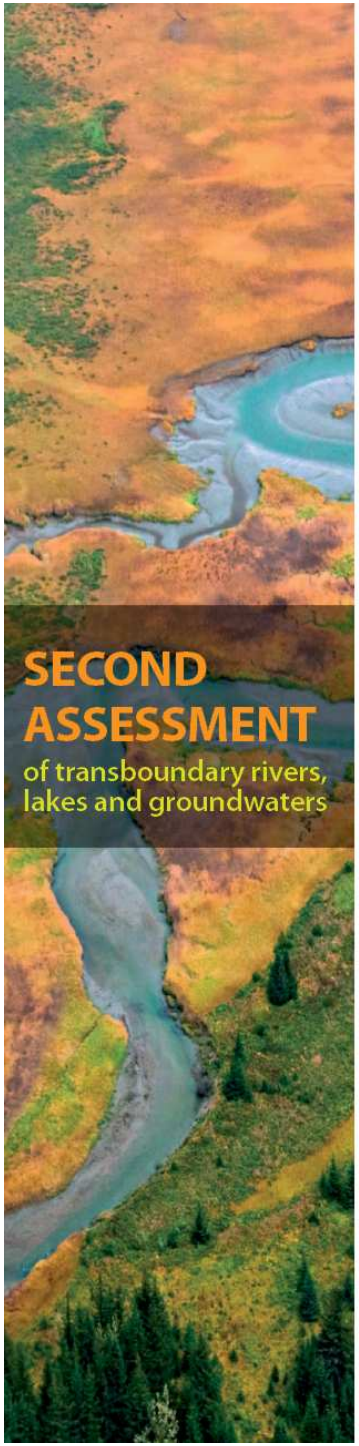

# Regular assessments under the Convention

- In 2003 the Parties to the Water Convention decided to regularly carry out regional assessments
- First Assessment in 2007, second in 2011
- Mandate from the "Environment for Europe" Ministerial conference




# Scope 2nd assessment

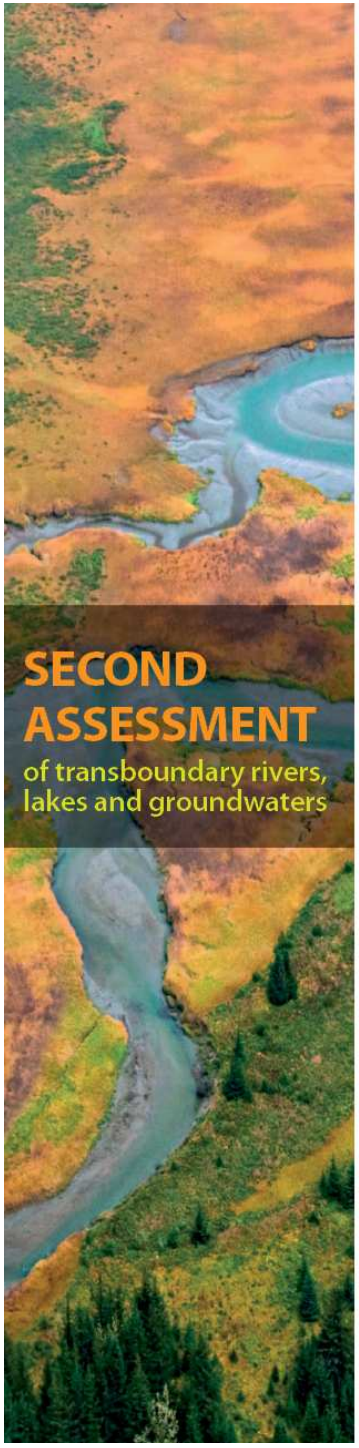
- Covers  more than 140 rivers, 25 lakes, about 200 groundwaters and 25 Ramsar Sites and other wetlands of transboundary importance
- Covers pressure factors, quantity and quality status of waters, transboundary impacts, responses and future trends



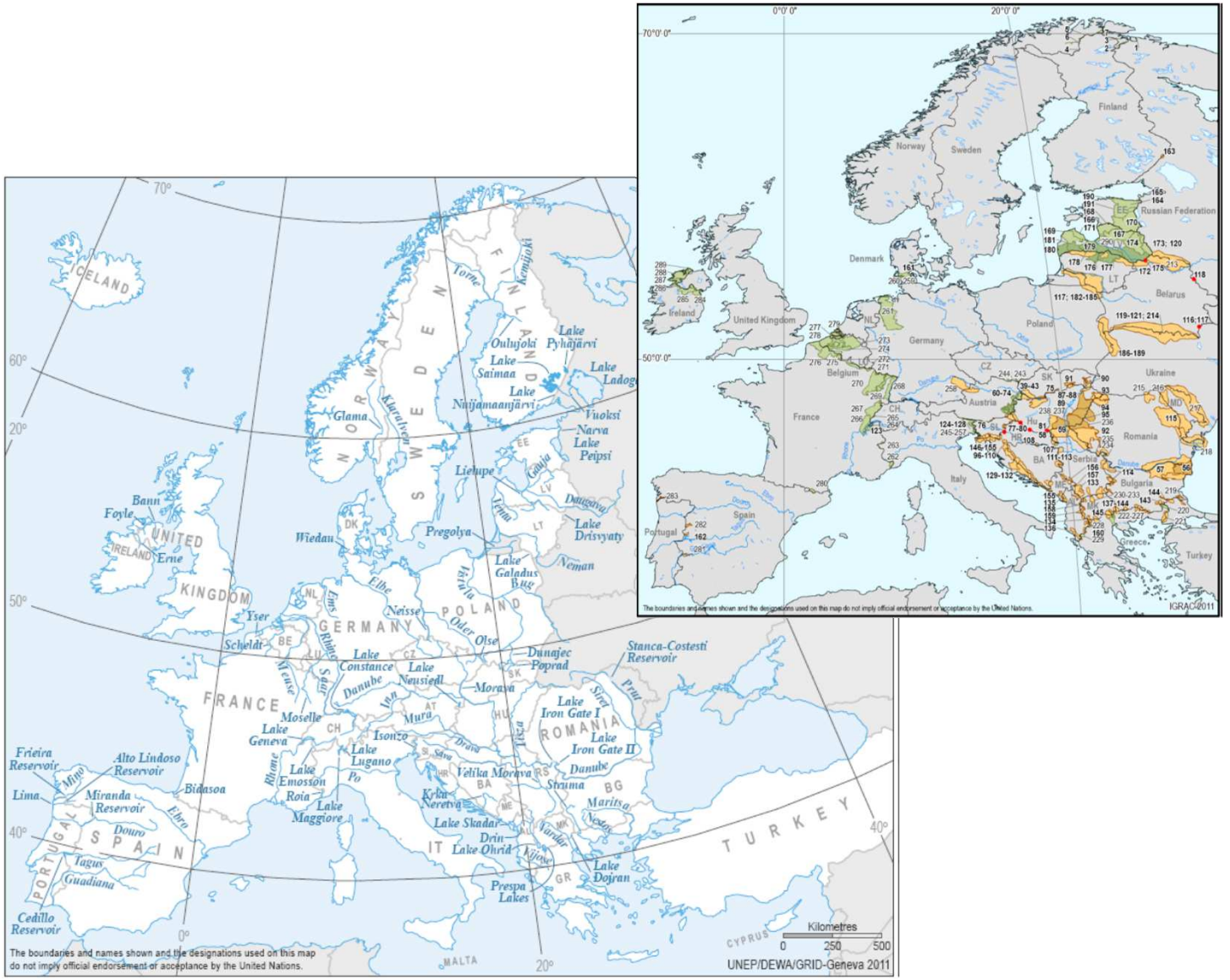

# Characteristics

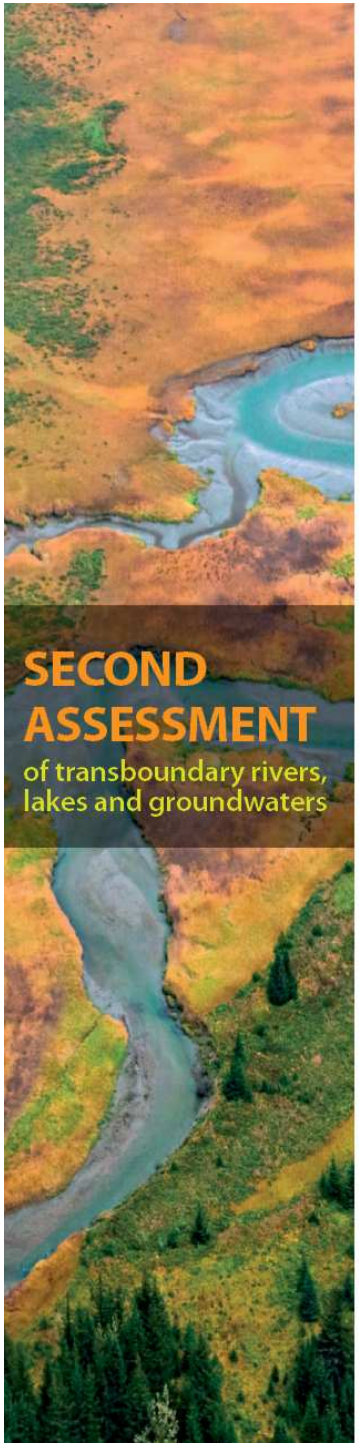
Focus on:

- Institutional aspects of transboundary cooperation (agreements, joint bodies, M&A...)
- Economic and social aspects, health issues, security aspects
- Water quantity and quality issues
- Impacts of climate change
- Ecological aspects => Ramsar sites

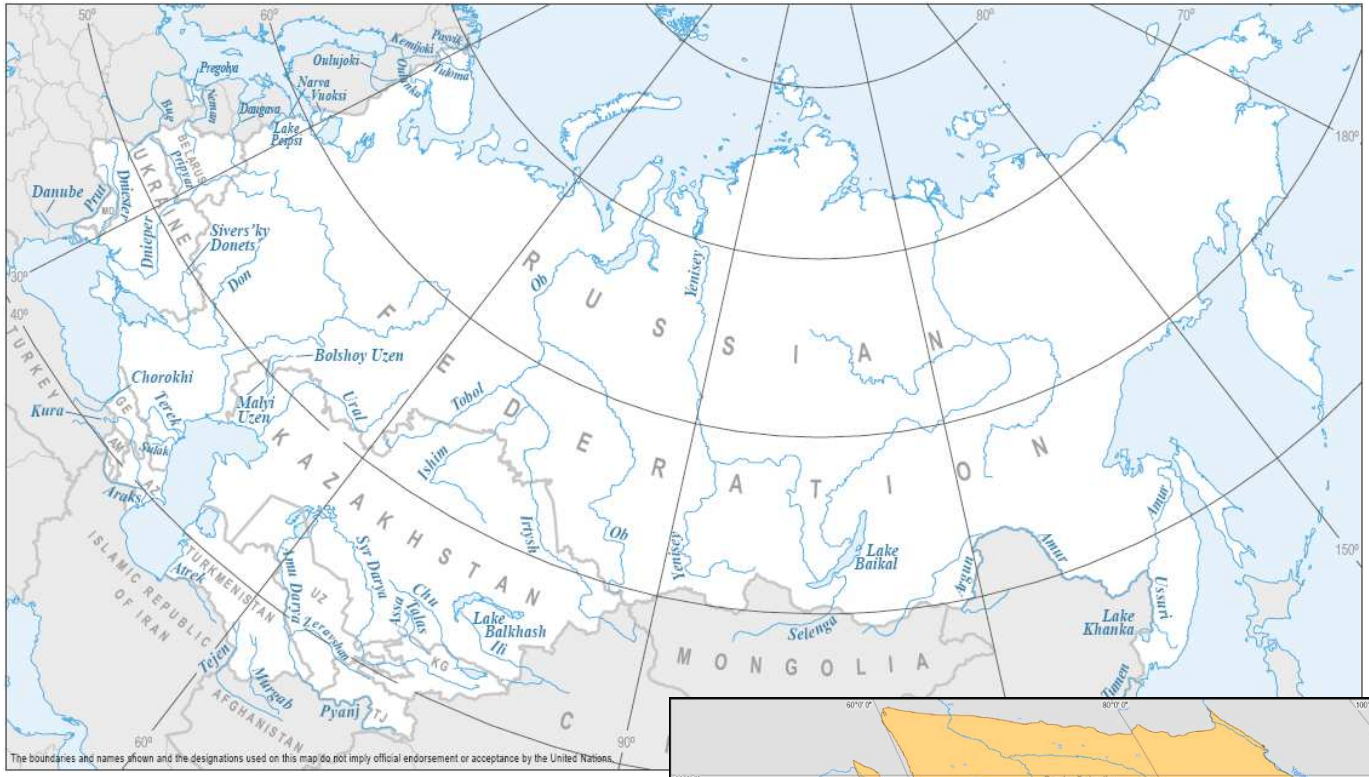


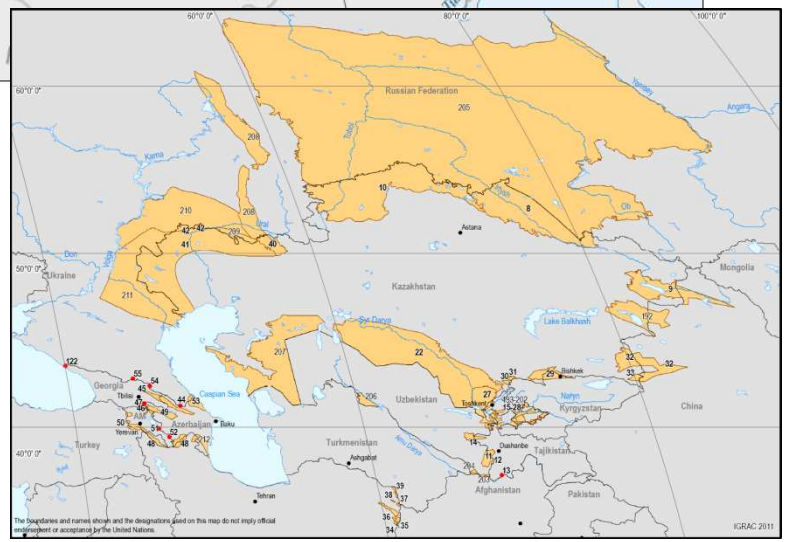

# Main transboundary surface waters and groundwaters in Western, Central and Eastern Europe

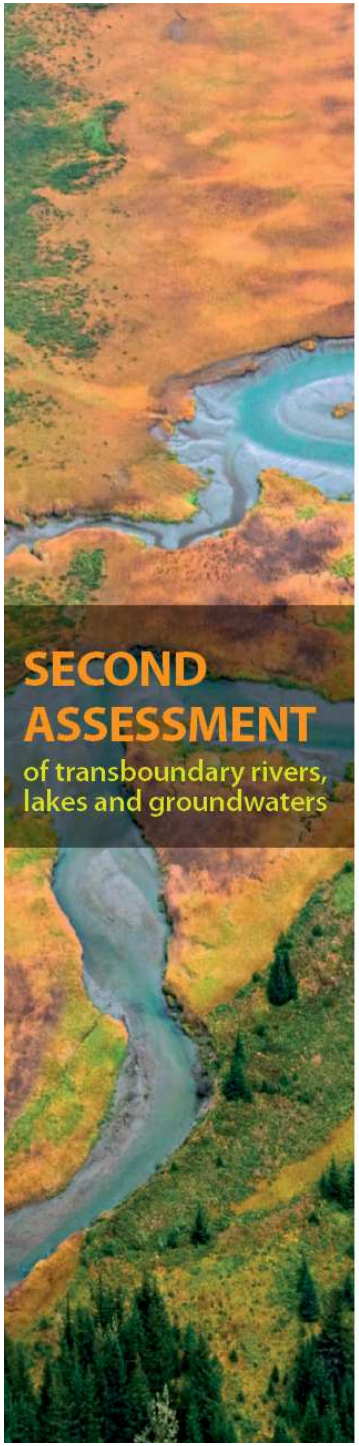





# Main transboundary surface waters and groundwaters in Eastern Europe, the Caucasus and Central Asia

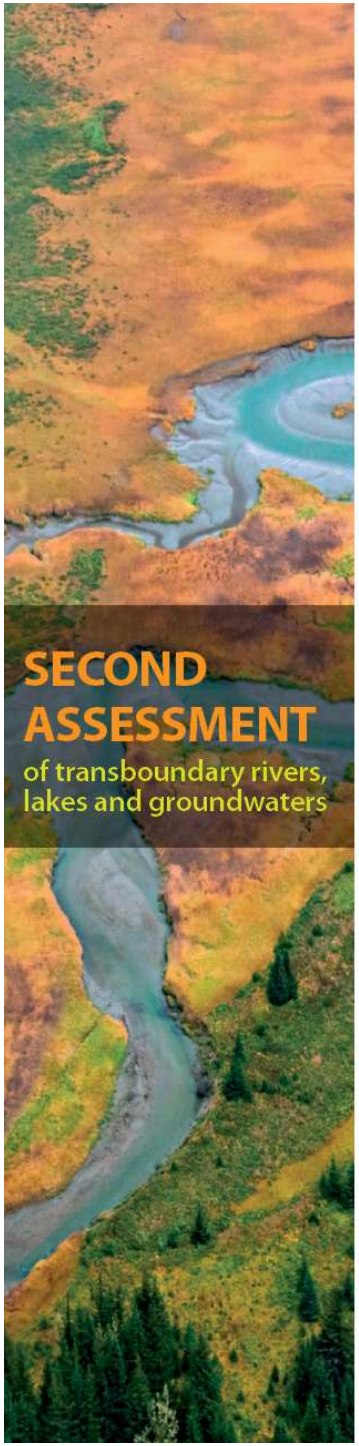




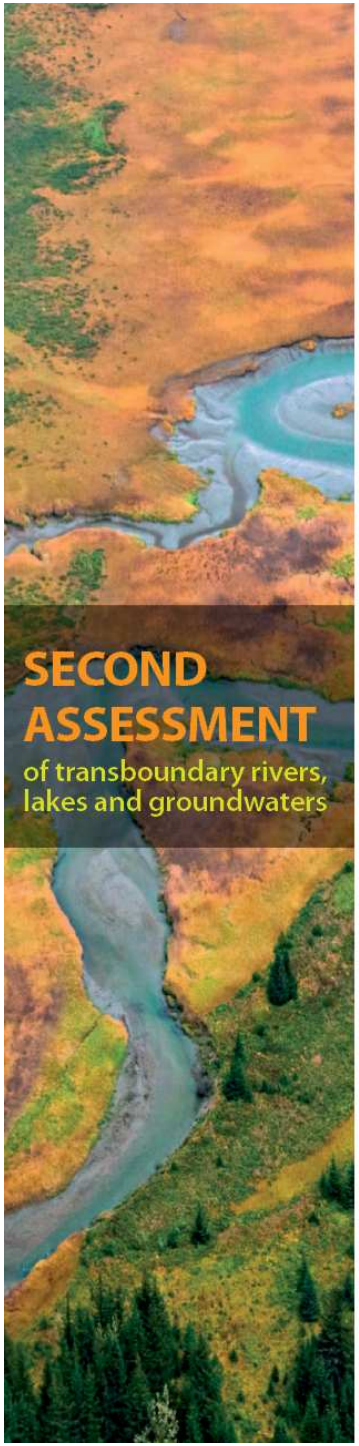

# Approach & process

- Extensive data collection: about 50 countries, 5 subregional workshops over >2 years
- Based in information by countries (provided through datasheets +review and endorsement)
- Input from river basin commissions and Ramsar experts
- Integration of groundwater and surface water



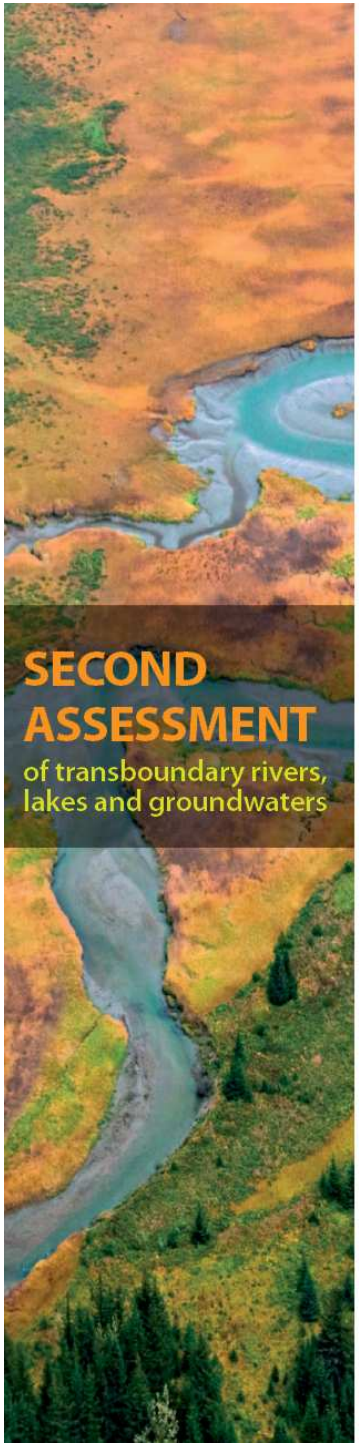

# Data collected

- Basin description
- Hydrology and hydrogeology
- Climate change impacts
- Withdrawal by sector
- Pressure and problems in the basin
- Status according to national classification
- Social, economic and environmental impacts
- Response measures
- Information on monitoring systems
- Financing



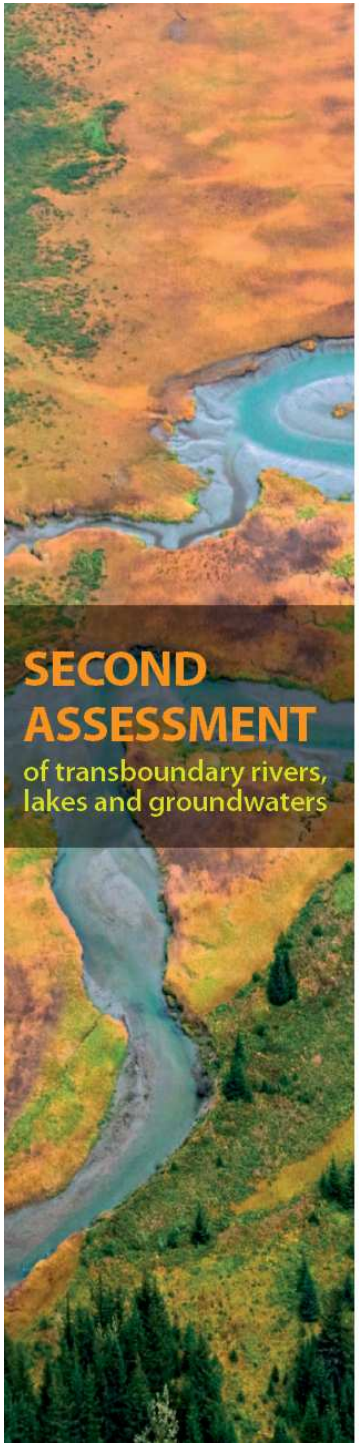

# Challenges

- Extremely labourous process
- Weak tradition on intersectoral cooperation
- Changes in the nature are slow, and thus difficult to verify between the first and second Assessment
- Different approaches complicate comparisons




# Findings related to monitoring

- Inadequacy of monitoring systems, quality assurance in sampling, processing & analytics and data comparability
- Weakness in monitoring quality aspects, groundwaters, biological monitoring
- Weak information exchange at the national and international levels
- Cost of and access to information is a major issue in many countries
- Basin level information commonly not available




# Successes

- Preparatory process as such promoted exchange, cooperation, intergartion and capacity building (workshops)
- Common assessment as a tool to harmonize approaches
- It was done! http://www.unece.org/env/water/assessment_activ.html

**Goal**

## A Water-secure[1] World for All

### Water Targets

| Water, Sanitation and Hygiene (WASH) | Water Resources Management | Wastewater Management and Water Quality |
|---|---|---|
| **Universal access to water, sanitation and hygiene**<br>• No one practices open defecation<br>• Everyone has water, sanitation and hygiene at home<br>• All schools and health centers have water, sanitation and hygiene<br>• Water, sanitation and hygiene are sustainable and inequalities in access have been progressively eliminated | **Double water productivity for growth while respecting ecosystem requirements and increasing resilience**<br>• Water resources are managed at the basin level<br>• Water efficiency is tripled in support of sustainable and equitable growth<br>• Ecosystems requirements are respected and their services ensured<br>• Human and economic losses due to water related disasters are decreased | **All wastewater managed to protect water resources and aquatic ecosystems**<br>• Wastewater production is prevented/reduced<br>• Wastewater and sludges are adequately collected and treated<br>• Wastewater which cannot be reused/recycled is discharged after adequate treatment |

### Nexus Targets

| | |
|---|---|
| **Water-Health nexus:** | All health centers provide users safe water supply and adequate sanitation services, as well as hand-washing and menstrual hygiene facilities. |
| **Water-Energy nexus:** | Productive use of water for hydropower generation is increased by X% while respecting requirements of ecosystems. |
| **Water-Food security nexus:** | Water productivity and water efficiency in agriculture are increased by X% and Y%, respectively. |
| **Water-Energy-Food nexus:** | Nutrients and energy in wastewater and sludges are safely recovered and reused by X% and Y%, respectively. |

# Lessons for monitoring the water SDG

- Strong ownership by Member States
- A process of monitoring and assessment that builds capacity
- Coherence of the UN system and cooperation of UN institutions
- System-wide approach at national level