



**MEETING OF THE PARTIES TO THE CONVENTION ON
THE PROTECTION AND USE OF TRANSBOUNDARY
WATERCOURSES AND INTERNATIONAL LAKES**

Fifth session

Geneva, 10–12 November 2009

**Assessment of Transboundary,
Rivers, Lakes and Groundwaters in
South-Eastern Europe**



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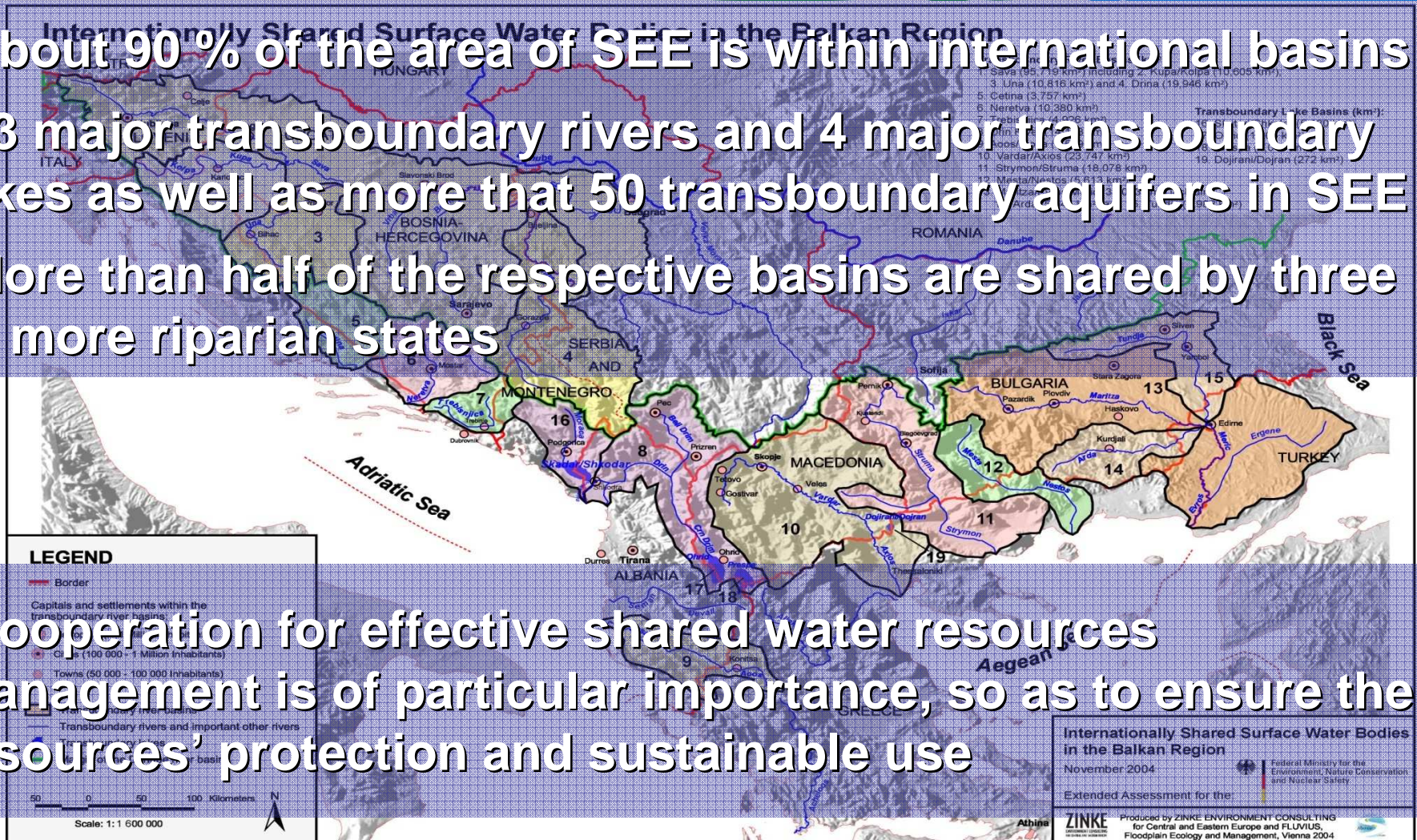
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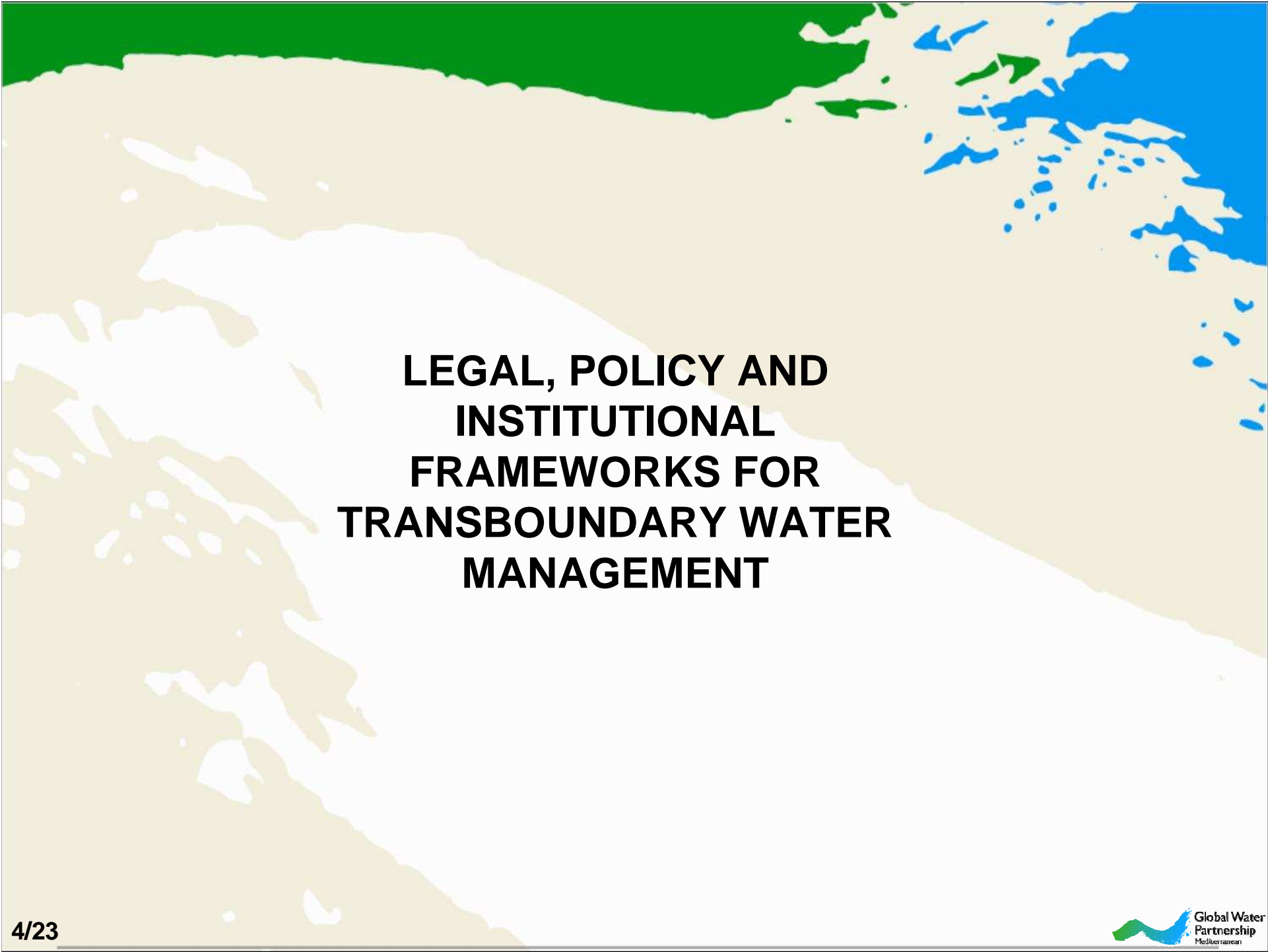


Southeastern Europe

-About 90 % of the area of SEE is within international basins
 -13 major transboundary rivers and 4 major transboundary lakes as well as more that 50 transboundary aquifers in SEE
 -More than half of the respective basins are shared by three or more riparian states

-Cooperation for effective shared water resources management is of particular importance, so as to ensure the resources' protection and sustainable use





**LEGAL, POLICY AND
INSTITUTIONAL
FRAMEWORKS FOR
TRANSBOUNDARY WATER
MANAGEMENT**

IWRM in shared basins depends largely on national water management frameworks

Institutional and legal frameworks in the SEE countries

Basis for this reform process: *the EU accession Process*
EU Water Framework Directive (WFD)

Revised or under an on-going revision process

Transposition of the EU WFD in the legal framework of the countries

- Voluntarily by some countries
- Expected to have a positive effect on the cooperation for the management of transboundary water resources
- (Eventually / In principle) Harmonized legal framework

in the non-EU countries, has progressed at a different pace depending on the evolving cooperation framework with the EU, prevailing socio-economic situation and administrative capacities

Overall, progress in lawmaking: considerable. Nevertheless, deficiencies in the area of implementation and enforcement. The reasons are manifold.

IWRM at the basin level:

have **partially been adopted in the countries that are not EU Member States** (history of efforts at the level of strategic planning and legislation adoption providing a basic framework for management at the basin level including provisions for integration - **implementation and enforcement remain considerable challenges**).

at the basin level **pursuant to the EU WFD in EU Members States** – River Basin Management Plans (RBMPs) are the main tools (their preparation is an issue in some countries)

Management of the shared water bodies in the SEE:

rather unilateral - level of cooperation varies, even among different basins shared by the same two countries

Transboundary cooperation for the management of the shared water bodies :

Influenced by the developments at political and socio-economic scene at national and regional level and the bilateral relations of the riparian countries

Agreements and protocols and other types of treaties : for TWRM

- There are many – in the majority of cases political obstacles and lack of resources have not allowed yet for proper implementation and significant results
- Nevertheless progress in several cases, indicating also political will, has been achieved

Joint commissions – *examples*: between Croatia and Bosnia and Herzegovina (1996 agreement), Croatia and Slovenia (1996 agreement), Croatia and Hungary (1994 agreement), Croatia and Montenegro (2007 agreement), the Serbian-Romanian Joint Commission under the 1955 Agreement, and the Serbian-Hungarian Joint Commission under the 1955 Agreement.

- Ohrid lake basin
- Skadar/Shkoder lake basin
- Sava river basin

Cooperation through Joint Bodies

Prespa lakes basin

In most of the shared Basins and aquifers cooperation is absent

among the reasons:

- low political prioritization of the issue,
- financial constraints and in some cases
- insufficient institutional capacity
- conflicting interests among countries may also be a reason

Transboundary aquifers: low knowledge level adds to the difficulties of transboundary cooperation.

EU WFD and the **UNECE Water Convention**: their consistency and complementarity represent a great **asset** for the region in terms of promoting cooperation through harmonization of policies and legal frameworks on the one hand and providing a set of sound rules and conditions for cooperation on the other



MONITORING OF TRANSBOUNDARY RIVERS, LAKES AND GROUNDWATERS

Monitoring capacity
of most of the
countries affected
by the:

-difficult conditions
of the recent past

-non-integrated management
of the water resources and lack of
coordination among institutions

Ongoing reform in the water
sector: opportunity to improve
coordination among
institutions involved in
monitoring and assessment

Information received: not adequate to allow for drawing clear conclusions
regarding the status of monitoring of shared water bodies at the national and
transboundary levels

- All countries have a certain level of monitoring of surface waters in place
- It seems to be less information available about aquifers (compared to surface waters), in terms of quantity and especially in terms of quality
- “Quality or quantity monitoring has to be improved or still needs to be established”
- EU Member States: monitoring, assessment and reporting activities are mostly steered by the obligations of different water-related Directives.
Level of implementation?

In most transboundary basins: information exchange is still very weak and information produced in riparian countries is not harmonized. Joint monitoring and assessment almost do not exist.

Nevertheless, there are exceptions to this rule:

e.g. Bosnia and Herzegovina and Croatia (Trebišnjica/Neretva left aquifer)

-Hungary and Serbia (exchange of harmonized information on the basis of relevant agreements)

-Serbia and Romania (monitoring of the Danube)

- Albania and the former Yugoslav Republic of Macedonia (Lake Ohrid – harmonized procedures for water monitoring and established joint protocols for sampling analysis and quality assurance)

- Efforts for a joint monitoring system in Prespa

- Bulgaria and Turkey (Maritsa/Evros/Meric basin - telemetry hydrometric stations)

Countries reported in many cases: “joint monitoring is needed” and relevant proposals were made



MAIN PROBLEMS, IMPACTS AND STATUS

Consumptive uses that rank first by the share of total volume of water used in the basins:

Agricultural irrigation (in the **Aegean Sea basin**-with spatial variations) and **drinking water supply** (in the **Black Sea basin**, followed by industrial water supply, agricultural irrigation - the order may vary on a case-by-case basis)

- Water-use efficiency in the agricultural sector
- Water loss due to the degraded drinking water supply networks
- Groundwater over-abstraction

Major issues in some countries

Major non-consumptive use in many countries:

Water for hydropower production

Albania: hydropower contributes to over 90 per cent of the energy production (Drin River basin : 70 per cent of the total energy produced in the country)
Bosnia and Herzegovina: it is an export commodity



Pollution

Agricultural activities (nitrogen, phosphorous and pesticides - pressure varies among basins - Sava, Mesta/Nestos, Maritsa/Evros/Meric, Neretva and Trebišnjica, Prespa, Somes/Szamos alluvial fan etc.)

Inappropriate sanitation – insufficiently treated and/or untreated wastewater and/or improper use of septic tanks (mainly in rural areas) as well as **illegal wastewater discharges** (Sava, Maritsa/Evros/Meric, Timok, Struma/Strymonas, Mesta/Nestos, Nisava and Neretva and in the Iron Gate reservoirs - Stara Plannina/Salasha Montana, Tara, South-Western Backa/Dunav and the North-East Backa/Danube-Tisza Interfluve etc.)

Insufficiently treated and/or untreated industrial wastewaters (including illegal discharges): in many cases pollution by organic compounds, heavy metals and other hazardous substances

Illegal waste disposal/uncontrolled dumpsites (Sava, Nisava, Neretva, Struma/Strymonas, Mesta/Nestos, Drin River basins and Skadar/Shkoder Lake)

Intensive tourism activities

periodically **increase the liquid and solid waste generation and the water demands** (Neretva River, Lakes Ohrid, Skadar/Shkoder and Prespa) - **illegal construction linked** with tourism is of concern (e.g. in the Drin basin)

Climate change impacts:

Almost no information was provided by the countries

Karst aquifer systems

Their special characteristics are an additional factor of complexity when it comes to transboundary water resources management (Neretva, Trebišnjica, Trebižat, Prespa and Ohrid basins)

Extent and limits of karst systems, drainage patterns and flow paths are little known. General lack of understanding of their vulnerability to anthropogenic as well as climatic stresses increases the level of difficulty of managing them as well as threatens their value and long-term sustainability

Dams

Great number of dams and associated reservoirs in shared basins (for one or more of the following: hydropower generation, irrigation, drinking and industrial water supply, flood protection and recreation)
Many dams in Sava, Neretva and Trebišnjica, Drin, Maritsa/Evros/Meric River basin (722), Iron Gates (Danube)

+
water regulation structures (e.g. flood protection systems)

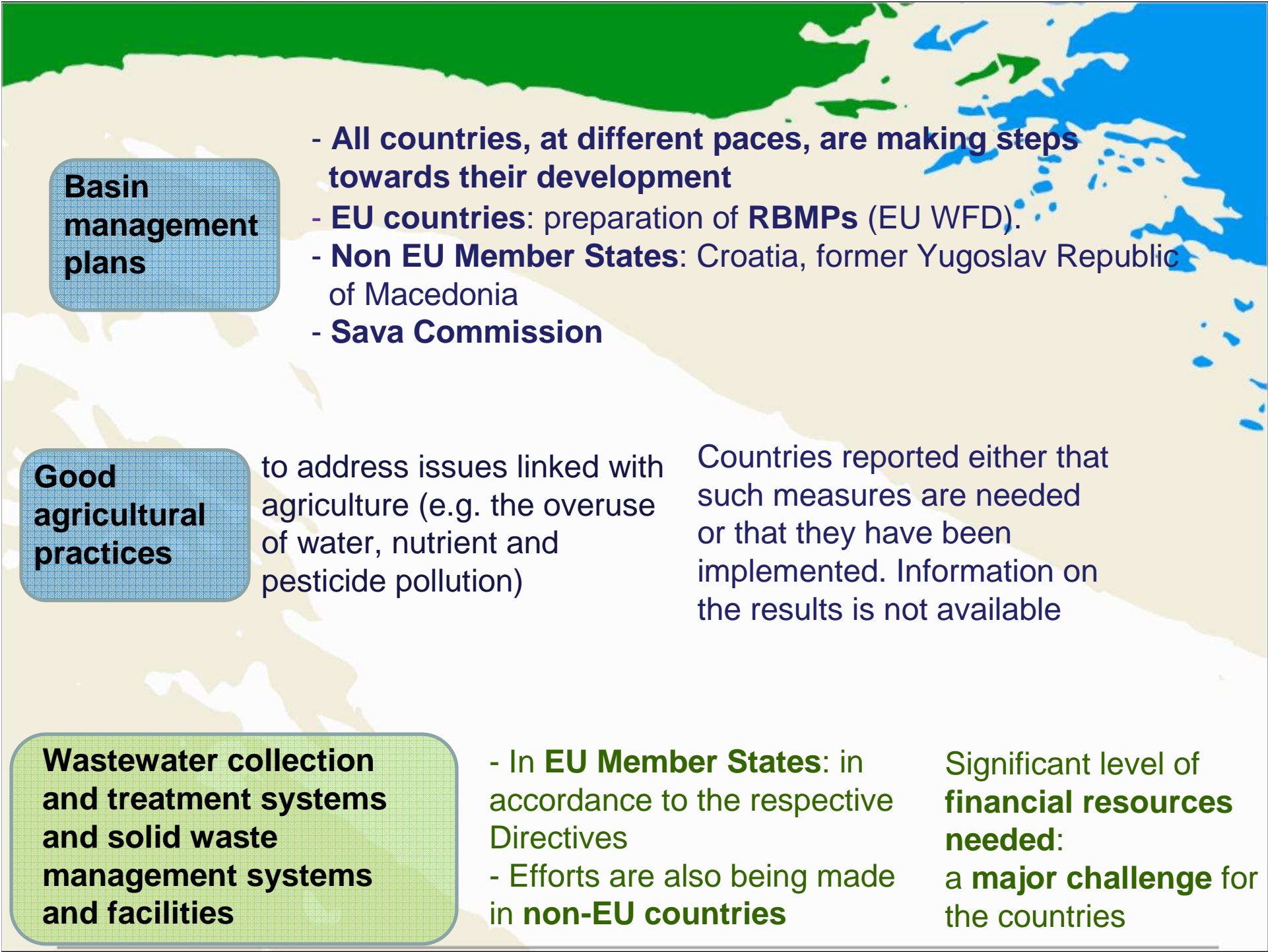
in combination with

surface water and groundwater abstractions (agricultural, municipal and industrial use)

in many cases: hydrological and morphological alterations with different impacts



RESPONSES



Basin management plans

- All countries, at different paces, are making steps towards their development
- **EU countries:** preparation of **RBMPs** (EU WFD).
- **Non EU Member States:** Croatia, former Yugoslav Republic of Macedonia
- **Sava Commission**

Good agricultural practices

to address issues linked with agriculture (e.g. the overuse of water, nutrient and pesticide pollution)

Countries reported either that such measures are needed or that they have been implemented. Information on the results is not available

Wastewater collection and treatment systems and solid waste management systems and facilities

- In **EU Member States:** in accordance to the respective Directives
- Efforts are also being made in **non-EU countries**

Significant level of **financial resources needed:** a **major challenge** for the countries



**Protection
zones for
drinking water**

- Have been established in many cases
- Nevertheless, relevant measures are reported as needing improvement for the majority of the aquifers
- Efficiency of these measures: seems to vary on a case-by-case basis; available information does not allow for drawing definite conclusions



THE WAY FORWARD

Action for **IWRM at national level**: creates the conditions for efficient management at the **transboundary level**

Ongoing reforms of the water sector can benefit cooperation between the countries in this respect: At the same time, **international cooperation could speed up national reforms**

Eventual transposition of the EU WFD across SEE would lead to harmonization of legal instruments for the management of water resources

The **UNECE Water Convention** has an **additional special role** to play in **SEE**: it offers a basis for enhanced cooperation and a common platform for EU and non-EU countries. Also a useful tool for assisting the implementation of EU water legislation by non-EU countries

Cooperation between riparians in monitoring and assessment: may provide an initiating point for cooperation

create the basis for establishing a common understanding of water issues and their root causes

-building of trust
-design of solutions on the basis of commonly agreed objectives

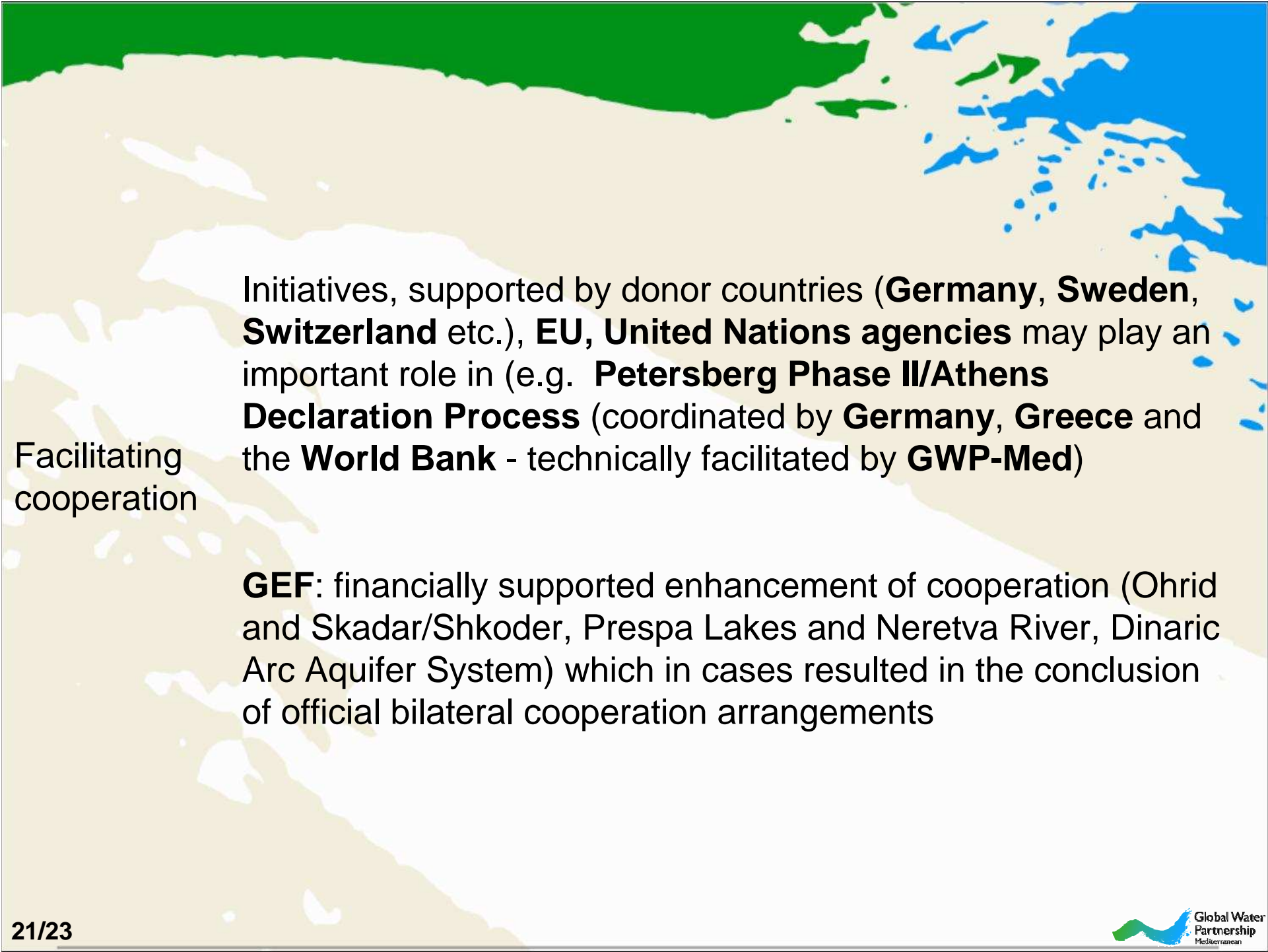
Water Convention's guidelines and strategies for monitoring and assessment

Possible entry points for enhanced cooperation:

Joint fact-finding exercises and analysis of the charact. of the basins (natural values, uses, pressures etc.)

Prioritization of issues at the national and transboundary levels; an agreed timeline for further progress may follow

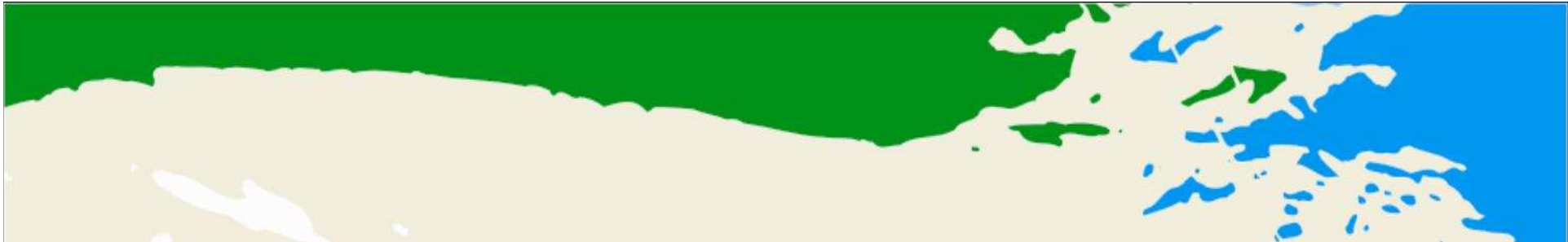
Issues of common concern, such as transboundary flood management, also provide such opportunities



Facilitating
cooperation

Initiatives, supported by donor countries (**Germany, Sweden, Switzerland** etc.), **EU, United Nations agencies** may play an important role in (e.g. **Petersberg Phase II/Athens Declaration Process** (coordinated by **Germany, Greece** and the **World Bank** - technically facilitated by **GWP-Med**)

GEF: financially supported enhancement of cooperation (Ohrid and Skadar/Shkoder, Prespa Lakes and Neretva River, Dinaric Arc Aquifer System) which in cases resulted in the conclusion of official bilateral cooperation arrangements



<p>Coordination of international actors, to create synergies and avoid duplication or unnecessary effort, should be a goal</p>	<p>Actions to secure country ownership</p>	<p>Upgrading the role of the joint bodies</p>
<p>Translating scientific data into information – assisting with decision-making and increasing public awareness</p>	<p>Minimization or elimination of upstream - downstream pressures</p>	<p>Collaboration, compromise and consensus-building process necessary for coordinative / cooperative depends on open dialogue, good will and trust among the key stakeholders</p>
<p>Development plans at the national level should balance the need for development with the need for sustainable natural resources use and environmental protection</p>		

Dams:

Planning of new infrastructure and operation of the available should take into account the upstream-downstream needs and considerations, including possible negative impacts on the ecosystem services and economic activities as well as the evolving climatic conditions

Floods:

Use of better operation techniques and rules regarding the available dam infrastructure

Joint development and establishment of integrated information systems such as flood forecasting/early warning systems

Tourism:

The effects of related development plans that involve alternative uses for waters and water bodies on lakes-rivers-wetlands-groundwater systems need to be clearly understood before any decision is taken



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www.gwpmed.org

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