IV International Symposium on Transboundary Waters Management

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BASIC PROBLEMS AND PREREQUISITES REGARDING THE TRANSBOUNDARY IWRM IN SE EUROPE.
The River Evros/Maritsa/Meric Case

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General remarks

- Increasingly complicated world…..
- Not easy solutions to big and interrelated issues/problems:

globalization, climate change, poverty, mega-cities, water scarcity, increasing food and energy demands,

economic growth vs. sustainability….

Transition period in W. Management:
Slow and difficult process

Required changes:

- From hydro-hegemony to hydro-solidarity through the aid of hydro-diplomacy skills
- From fragmentation to integration/holistic approach (science, sectors/policies, space, time….)
- New concepts and paradigm shifts:

  Benefit sharing, *Adaptation*, *Mitigation*

  Great Difficulties in Implementation!!!

Transboundary Water Resources Management- some basic global data

- 60% of global river flow in transboundary basins (~270 international rivers)
- All major groundwater aquifers are transboundary
- 40% of worlds population live in transboundary basins
- 145 nations have territory within transboundary basins

SE-European Countries: basic data of water resources sharing

- About 90 % of the area is within international basins
- Most river basins, lake basins and major aquifers are shared between two or more countries
- Average regional water dependency ratio on external resources is 66 %

Transboundary Water Resources

>3.600 bilateral and Intern. Agreements...

Study in 145 most recent: what is regulated?

- Information sharing 64%
- Monitoring 54%
- Conflict resolution 46%
- Water allocation 37%
- Enforcement 19%
- Water use focus – water supply 37%
- hydropower 39%
- flood control 9%
- others 15%

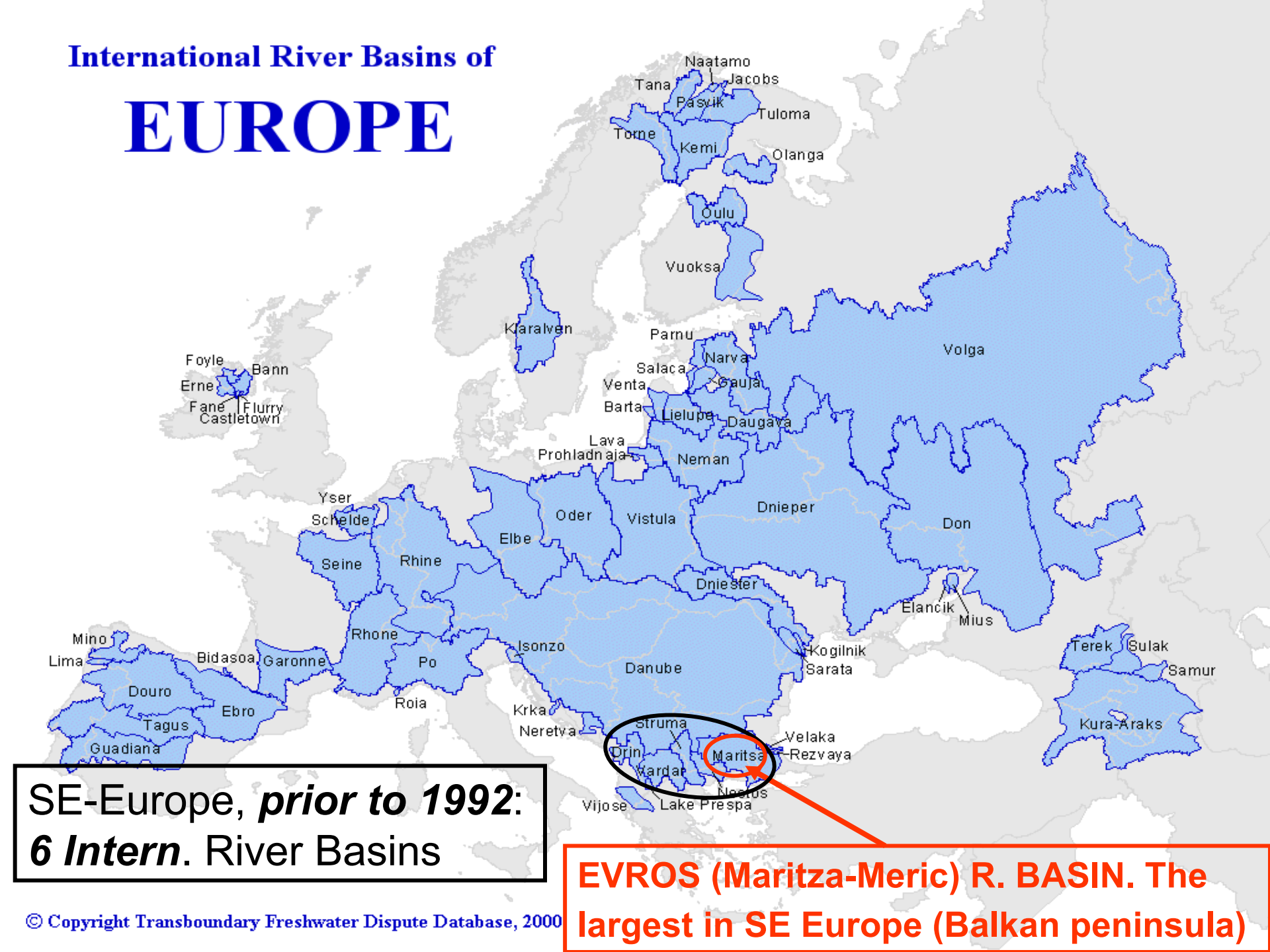
Shared Rivers in SE Europe, Sub-Danubian Countries: basic facts

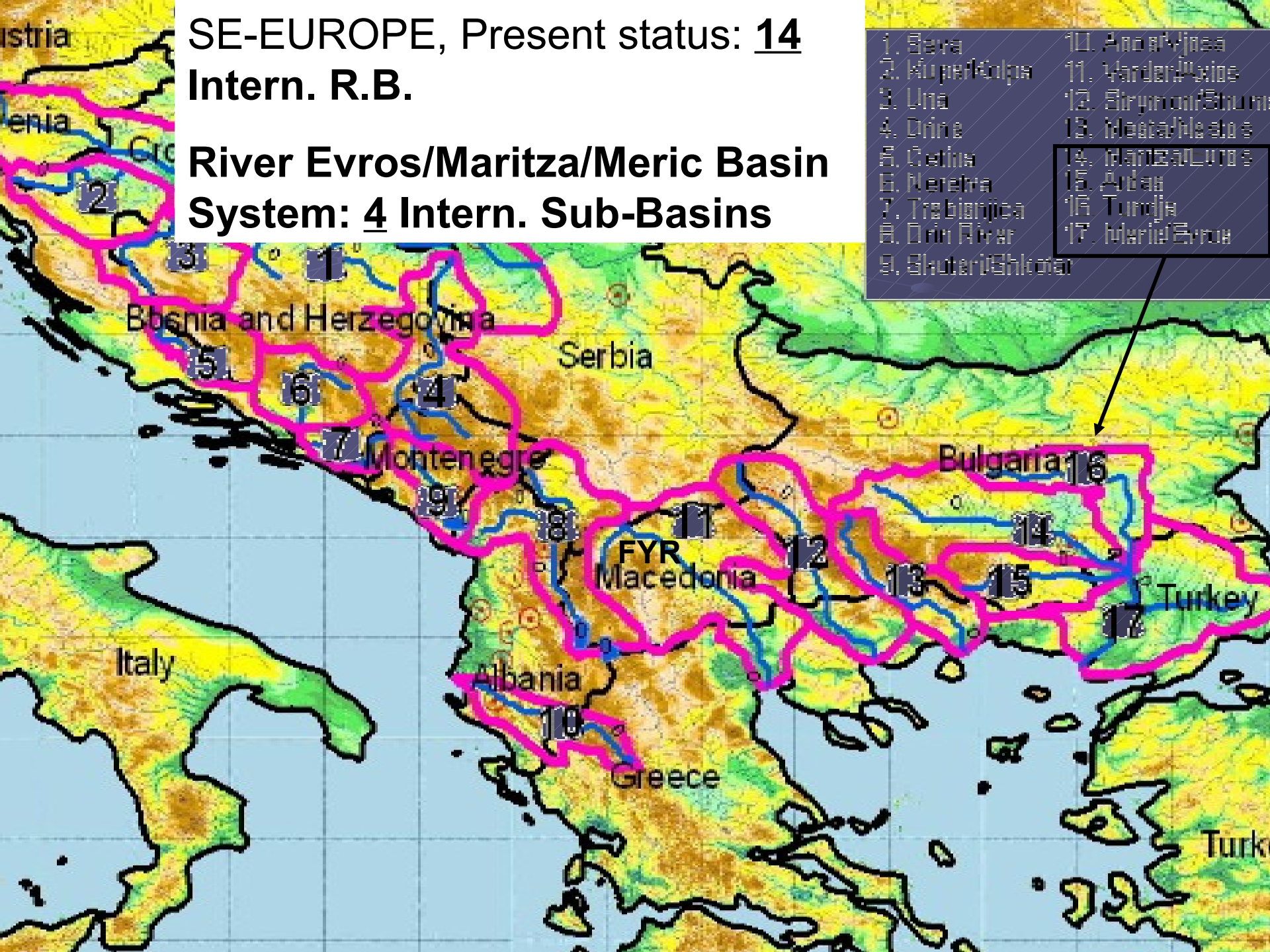
A COMPLICATED political + natural environment !!

- **Prior to 1992:** six (6) transbaundary rivers (Aoos/Vjosa, Drim, Axios/Vardar, Strymon/Struma, Nestos/Mesta, and Evros/Maritza/Meric)
- **At present: six (6) + eight (8)new intern.rivers** (Sava, Kupa/Colpa, Cetina, Una, Drina, Skutari/Shcotar, Neretva and Trebisnjica) = fourteen (14) transboundary rivers crossing borders of (10) ten (present!) countries

Seventeen (17) Transb. Riv. Basins* (*4* of them are Intern. Sub-basins of R. Evros/Maritza/Meric System)*

~90 % of the total area is within intern.basins




SE-EUROPE, Present status: 14
Intern. R.B.
River Evros/Maritza/Meric Basin
System: 4 Intern. Sub-Basins
1. Sava
2. Kupa/Kolpa
3. Una
4. Drina
5. Cetina
6. Neretva
7. Trebisnjica
8. Drin River
9. Shkumbi/Shkoder
10. Ardas/Vijosa
11. Vardar/Axios
12. Strymon/Struma
13. Mesta/Nestos
14. Maritsa/Evros
15. Arda
16. Tundja
17. Maritsa/Ervos
Bosnia and Herzegovina
Serbia
Montenegro
Bulgaria
FYR
Macedonia
Turkey
Italy
Albania
Greece

Transboundary Cooperation on intern. shared water resources management: **Evaluation of past initiatives**

Many, mostly bilateral, official initiatives, Declarations, Agreements…..

But, most of them, still at present:

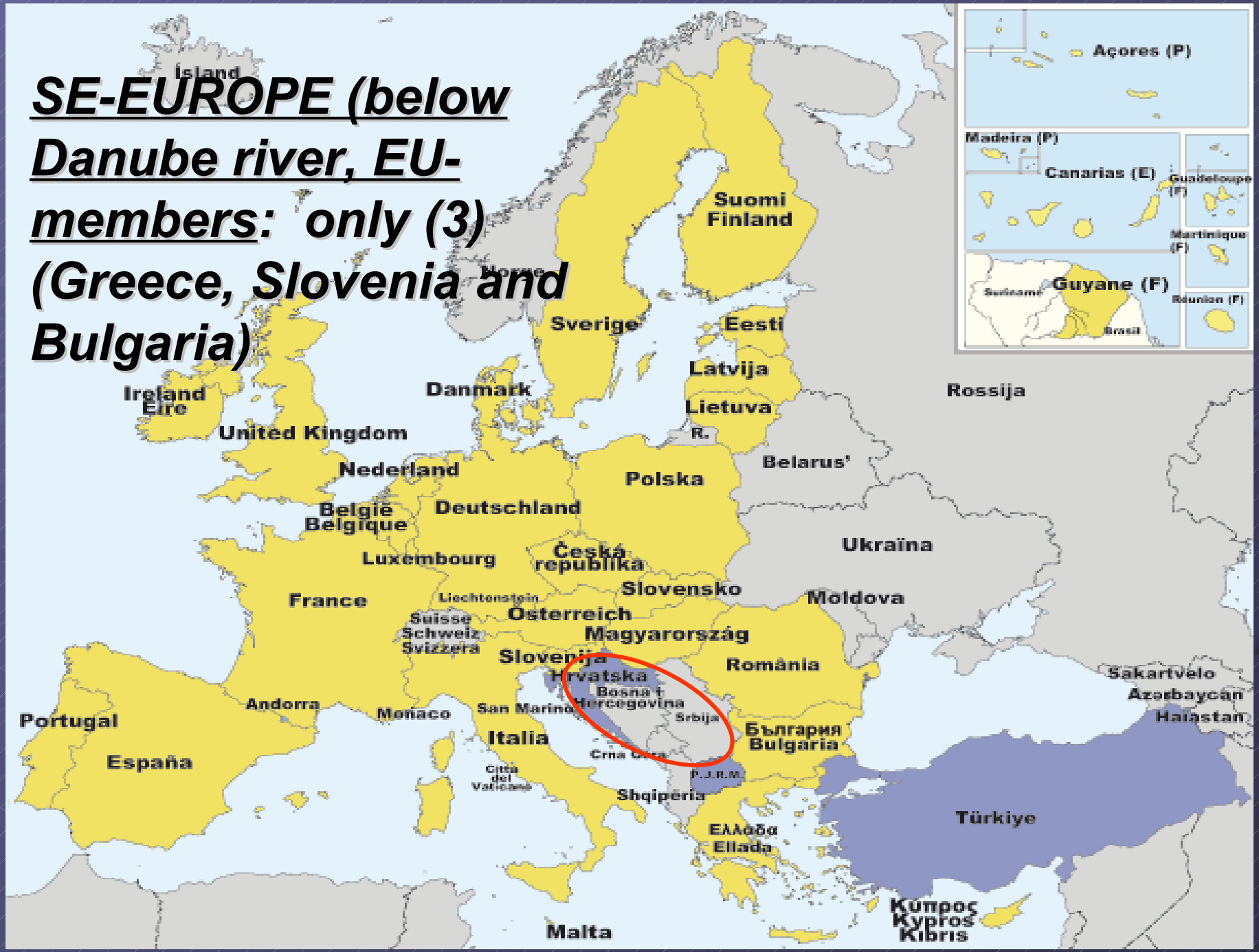
- ***not fully operative (generalities…)***
- ***not efficiently implemented (ambiguities…)***
- ***or completely missing on certain important issues***

Present: No visible effects of WFD 60/2000 implementation on Intern. R.Bas.

Causes/barriers engaged to inefficiencies of Cooperation process (political, economic, cultural)

- Political and socio-economic particularities and problems in each riparian country
- Past-present transb. conflicts and disputes
- Differences regarding EU membership status and progress
- Economic constraints (in varying degree)
- Difference of arguments/perceptions in interpreting the *concepts & principles** of International Law (rights, duties): UP vs. DOWN stream country
- (*) *Efficiency*, *Equity*, *No harm*, *Sustainability*

- Lack or inefficiency of scientific, technical and institutional infrastructures (data bases, monitoring, …)
- Lack of institutional and cooperation culture
- Lack/low stakeholder and public participation (local goverments, scientific society, NGO's)
- Fragmentation in water related policies and water competent authorities
- Differing ranking in national interests and security needs
- Cooperation on transboundary water issues not high in the political agenda of the decision makers (Governments)
- Inefficient negotiation team and methodologty


SE-EUROPE (below Danube river, EU-members: only (3) (Greece, Slovenia and Bulgaria)
Ísland
Norge
Suomi Finland
Sverige
Eesti
Latvija
Lietuva
Rossija
Ireland Eire
United Kingdom
Danmark
R.
Belarus'
Nederland
Polska
België Belgique
Deutschland
Luxembourg
Česká republika
Ukraïna
Slovensko
France
Liechtenstein
Österreich
Moldova
Suisse Schweiz Svizzera
Magyarország
Slovenija
Hrvatska
România
Bosna i Hercegovina
Sakartvelo
Azərbaycan
Andorra
Monaco
San Marino
Srbija
Hayastan
Portugal
Italia
България Bulgaria
España
Crna Gora
Città del Vaticano
P.J.R.M.
Shqipëria
Türkiye
Ελλάδα Ellada
Κύπρος Kypros Kıbrıs
Malta
Açores (P)
Madeira (P)
Canarias (E)
Guadeloupe (F)
Martinique (F)
Guyane (F)
Suriname
Réunion (F)
Brasil

System of River Evros/Maritza/Meric transboundary basin: 4 shared transb. sub-basins

River System's Basic data

Main river: ~530 km, headwaters in the Rila mountain-chain (Bulgaria), mouth in NE Aegean Sea, mean discharge ~1610 m^3/s.

Basin: area ~ 53,000 km2

Delta area ~188 km2 (Natura 2000 and Ramsar Convention), shared by Greece (90%) and Turkey

4 main tributaries: Ergenes, 20.5% of total b., Tundzha 16%, Ardas (11%) and Erythropotamos (3%).

Allocation of the r. basin area:

- Bulgaria: (up-stream, new EU member), 66%
- Turkey: (down-stream, non EU mem.), 28%
- Greece: (down-stream, old EU member), 6%

The complexity and particularities of the R. Evros B. System

(perhaps, the case of highest complexity in SE Europe)

Main characteristics:

- Natural: large aerial extent, division in 4 main sub-basins, many tributaries, river + delta fragile ecosystems.
- Water linked infrastructure: 21 large H/E dams in up stream side (Bulgarian territory), systems of flood protection dikes, nat. flood plains are high value agricultural land,

River waters pollution & high flood hazard vulnerability:

Often reoccur. catastrophic FLOODS! (2003, ‘05, ’06)

- **Political**:

-river's 208 km consist borderline (GR-TR) with attached zones of high military importance

-all sub-basins are transboundary

-Muslim* minorities (GR & BG*partic. coalition *Government)

-three riparian countries:

Bulgaria: up stream country, new EU member, transition period (towards free market economy, institutional reforms, economic constraints, agricultural changes)

Turkey: down stream country, flooding hazard, non- EU member (transition period towards joining EU). Particular perception over Intern. Law on Water management (e.g. regarding issues of sovereignty, water rights, etc.)

Greece: down stream country with great dependence on up stream transboundary waters (4 out of 5 transb.rivers of northern region flowing downstream to Gr.), high (mainly imported) pollution and flooding problems, old EU member, slow WFD implementation

Sound Cooperation Results on Management of Transboundary Waters (Only bilateral)

The "R. Evros case":

- Water allocation

GR-BG, 1964, legally binding and implemented Agreement (the only one! between them):

186 mil. c.m. irrigat. water release annually to Greece through Ivaelograndd dam.(60 years duration)

- Water monitoring

EU-GR-BG agreement, 2000-2006, INTERREG and PHARE programmes: *installation of hydro-meteorol. monitoring stations* to cop Floods (*The 6 in the Greek side not yet fully operative)*

Greek mon. st/s 1: Komara Dam, r. Ardas, Gr.B., **2: Ormenio**, r. Evros, Gr. B., **3: Pithio Bridge**, r. Evros & Erythropotamos confluence, **4: Erythropotamos bridge**, **5: Kipi Bridge**, r. Evros & Ergines confluence, **6: Evros Delta**, river mouth

Influence of WFD 60/2000 implementation on Transb. Water Manag. and Cooperation

- Slow implementation of the WFD by GR & BG (Turkey not obliged)
- It seems that BL is unwilling and / or unprepared to cooperate for jointly compiling a Manag. Plan for the whole transb. R. Basin
- BL argues that no legal obligation to do so is deduced from the text of the Directive (and the engaged to it Guidance Document "Best Practices in Basin Manag. Planning".
- We think that EU officials must eliminate the particular weakness(?) of the WFD, by both clarifying the strict legal obligations and the process to be followed by the member states in designating International River Basin Districts and actually achieving joint management of shared (transboundary) waters.

GR-BL-TR Cooperation at Present

Given what has been mentioned previously:

- No visible signs of mobility in bilateral or tripartite cooperation regarding joint IWRM of shared river waters
- recent catastrophic floods* didn't create enough potential to impose sound and long lasting cooperation (apart from the monitoring stations and verbal political commitments)

(*) ***turning crisis into an opportunity***

(the r. Rhine case)

Prerequisites for strarting an effective & sustainable IWRM in Transb. R. Basins

Basic (first priority) Prerequisite:

- Creation of the politicaly **ENABLING Environment** for the Governments of the riparian countries to cooperate in establishing the Institutional and Operational framework for implementing joint IWRM in the transboundary basins, as their:

DUTY, OBLIGATION and a ***BENEFIT- Sharing*** process

Potential Initiatives:

- **"Third Party"**: proper involvement of influential internat. political bodies, countries & respected scientific organizations (existing **good examples!**)
- Active involvement of the domestic civil society academic/scientific community

First step forward:

Creation of an effective (tailored to the case)

River Basin Organization (RBO)

RBO requirements (effectiveness prerequisites):

- Strong political & financial commitment
- Clear definition tasks
- Well-defined procedures for interaction between RBO and national agencies
- Clear legal status, and dispute / conflict resolution mechanisms

RBO good examples: **Rhine**, Nile, Mekong,

First task/duty and permanent function: undisputable water relevant data collection and sharing

(as precipitation, hydrology, dam operat.)

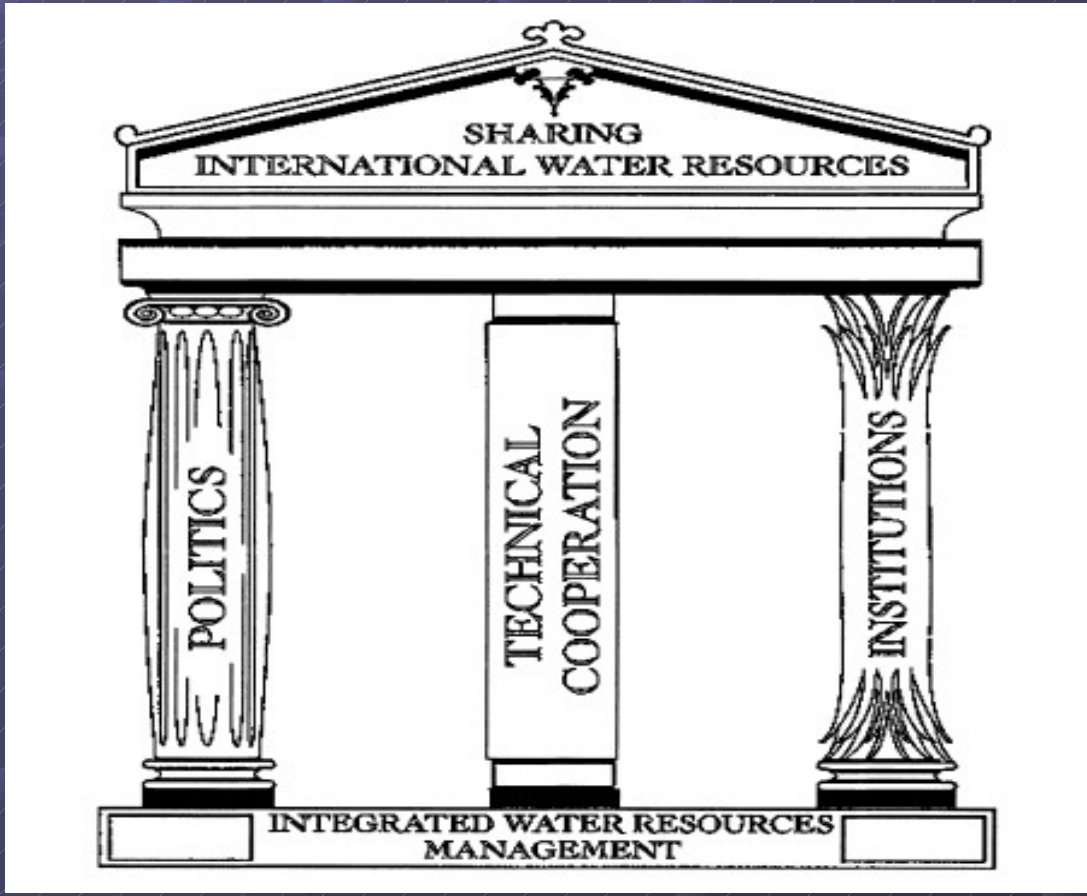
- Vision and an attached to it staged strategy

Conceptual framework

The ancient temple metaphor,

introduced by *Savenije & Van der Zaag, 2000*

Sharing of Intern. Wat.
should be founded
on IWRM
and supported by
3 pillars: political p.
operational p.
and Institutional p.



Side pillars:

- Political* pillar: responsible for an enabling environment, and the
- Institutional pillar: responsible for laws and institutions.

Central Operational pillar: responsible for technical cooperation, is central to the success of the management of intern. river basins. It may support most of the load if one of the outer pillars is weak*, cracked* or in the process of repair or restructuring.

All three pillars are necessary to arrive at a balanced, equitable and sustainable sharing of international waters.

Concluding remarks

The SE-European countries have to realize and accept that:

The successful Integr. Management of International River Basins involves a long learning process;

A process the participating countries have to go through, and for which there are no short cuts!

Outside assistance / guidance (third party involvement) can only play a very modest role!

In the way ahead, we urgently need:

- a new, holistic and adaptive thinking in all water related sciences
- A task force of new, open minded, interdisciplinary educated and "fit to the job" (transboundary waters) negotiators-diplomats (hydro-diplomats) a
- New negotiation methodologies & tools to foster sound transb. cooperation

The **scientific community** of our countries has to accept the responsibility and undertake the duty to:

- **Facilitate**, through joint initiatives, the creation of the **enabling environment**,
- **Assist**, by all means, in the learning process (target groups: decision makers, civil society, young generation of scientists) and
- **Introduce innovative ideas** for **benefit sharing and win-win solutions,**

& properly ***tailored to each particular case!***

GREECE CAN & SHOULD PLAY
A LEADING ROLE…

Thank you for your kind attention