

Understanding European water lifecycle and management challenges

Towards the potential for (innovative) economic instruments for achieving water policy goals



Which economic model for a water efficient Europe?

CEPS TF meeting

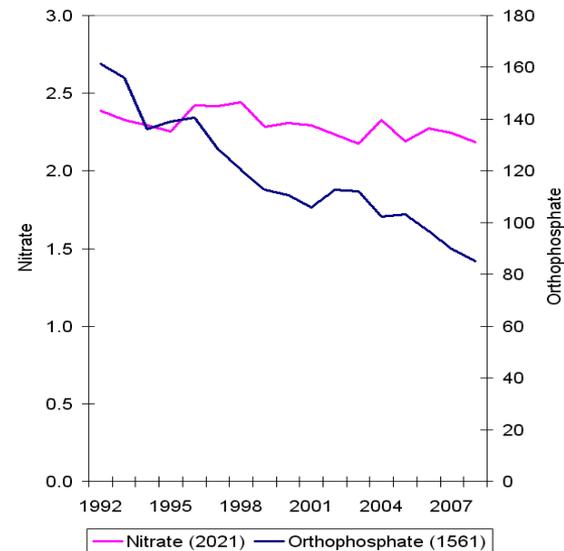
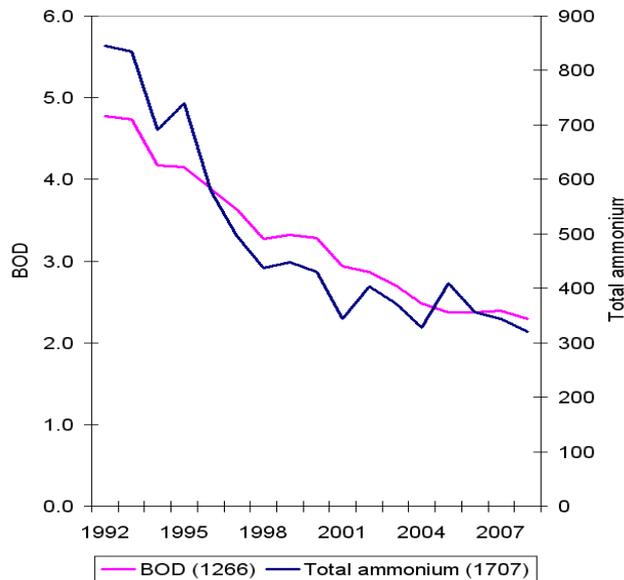
Brussels, March 5th 2012

Rationale & context

- **What is the state of water resources today?**
- **A wide range of EU policies focusing on water
... not always adapted to existing and new
challenges (a), (b) and (c)**
- **Is there a role for economic instruments in addressing
these challenges ?**
- **A wider tool box available – and tested!**
- **Selected illustrations on economic instruments for
addressing new challenges**
- **Over all...**
- **In conclusion**

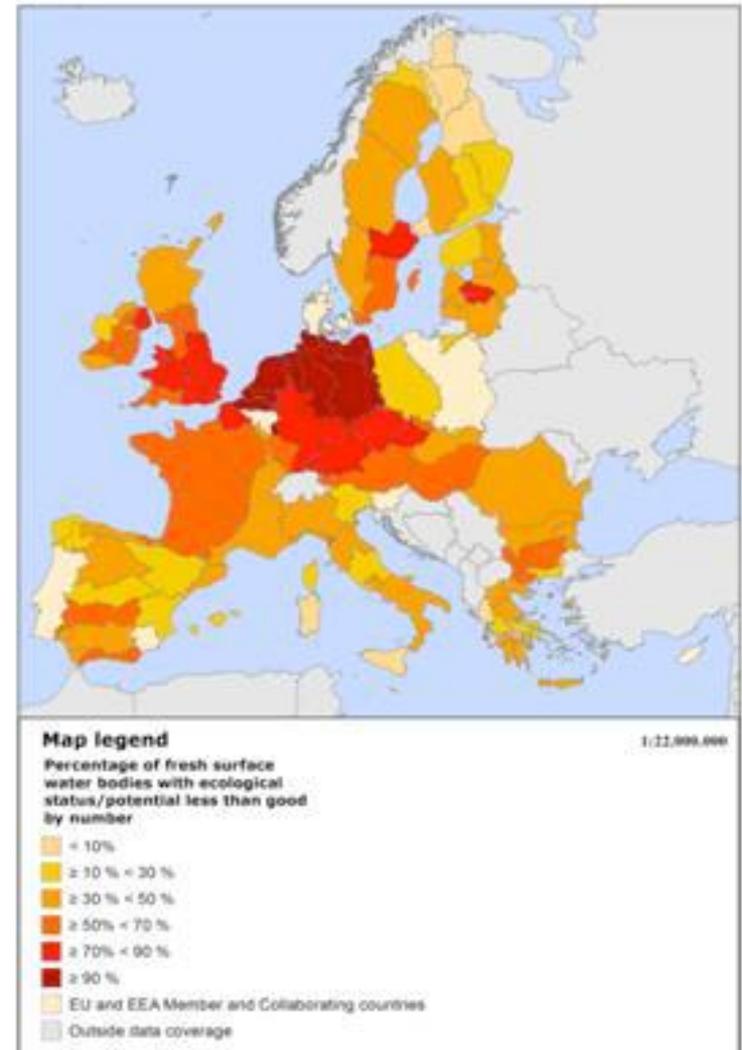
3a – What is the state of water resources today?

Chemical status of waters – improving for “traditional” pollutants (organic, nitrates..... see figures below – source EEA) but problems remain with a) new dangerous substances, b) increasing quality in major aquifers, c) eutrophication of coastal areas...



3b – What is the state of water resources today?

- Ecological status of water bodies – the new challenge of the WFD, with still much to be done (see source EEA)
- Water quantity – an increasing attention given to quantity issues as a result of ecological demands (E-Flows), water scarcity & drought problems, climate change, etc.
- A wide range of human activities at the origin off these problems (agriculture, urbanization & economic development, industry, shipping, energy, tourism. ...) requiring a integrated approach to the problems



4 – A wide range of EU policies focusing on water

From an earlier patchy EU water regulation (on specific pollutants, types of waters, pollutant, etc.)....

... to the integrated river basin management approach promoted by the WFD with ecological status as the central objective

Complemented by

- Its daughter directives (hazardous substances, groundwater)

- The Flood Directive

- The Marine Strategy Framework Directive

- ...

5 – ... not always adapted to existing and new challenges (a)

Lessons from the **first WFD implementation cycle**

-Remove constraints and strengthen effective implementation – with for example:

Enhance governance (public participation, emergence of organizations for carrying out river renaturation projects, more rigorous use of cost-effectiveness and cost-benefit assessments for selecting priority actions)

Shift actions from a focus on “state and impacts” to a focus on the “drivers and pressures” (the causes of the problems)

Ensure actions proposed are coherent with “pressures & impacts” analysis, apply the philosophy of Article 9 more fully, etc.)

-Strengthen the coherence between water policy and sector policies (e.g. agriculture, energy/climate change – hydropower electricity....)

-Make the link between good ecological status and ecosystem goods and services more transparent, to facilitate the identification of benefits from water status improvements and the search for actions that deliver economic benefits

... not always adapted to existing and new challenges

(b)

Climate change and adaptation => revisiting water policy for enhancing the resilience of river basins (higher focus on quantity)

Green Growth => putting the emphasis on resource efficiency (with clear understanding of ecosystem goods and services that will be attached – higher focus on quantity)

The financial and economic crisis => driver to “cost-effectiveness” and to “innovation” for mobilizing sufficient financial resources and ensure (ecological) priorities

7– Is there a role for economic instruments in addressing these challenges ?

The discussion on economic instruments is **too often limited to the old culprits**: water tariffs & environmental taxes/charges... that do not reflect the diversity of environmental issues and water policy challenges (e.g. ecology, ecosystem goods and services...)

These instruments are **often “marketed” and justified based on environmental grounds** (expected positive impacts on water status)...

... but are **mainly used to raise revenue** (still a key role under economic and financial crisis situation... if collected revenues are earmarked to the water system)

A wider tool box available – and tested!

Type of instrument		Matching studies (CS# link with previous table)
Taxes and charges	Water tariffs (pricing)	7 (Emilia Romagna, IT); 12 (UK); 16 (Po Basin, IT), 24 (IL); 27, (Calif., US)
	Environmental tax	4 (DK), 6 (HU); 11 (NL); 14 (DE) 20 (CY)
	Environmental charge	5 (HU); 8 (Serpis Basin, ES); 13 (Baden- Württemberg, DE); 17 (Po Basin, IT)
Subsidies	Subsidies on Products	15 (CH); 18 (D)
	Subsidies on Practices	2 (Lower Ebro Basin, ES); 10 (Tordera Basin, ES); 20 (CY)
	Tradable permit for abstraction	1 (Tagus Basin, ES), 22 (Colorado);
	Tradable permit for pollution	21 (Salinity, AU); 23 (Unbundling, AU); 25 (Miami, US); 29 (NoCar, US)
Voluntary agreements		3 (UK); 9 (Llobregat Basin, ES); 19 (Evian, Haute Savoie, FR) ; 26 (NY, US)



“Evaluating Economic Policy Instrument for Sustainable Water Management in Europe”.

(<http://www.feem-project.net/epiwater>)

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9 – Selected illustrations on economic instruments for addressing new challenges

Illustration 1 – making water and energy policy more coherent: the ecologically friendly bonus for hydropower in Germany

Illustration 2 – accounting for the variability of water resources and economic efficiency: water markets in the Tagus river basin

Illustration 3 – Payment for ecosystem services: voluntary agreements for protecting mineral water resources

10 – Overall...

The environmental outcome (impact on the status of water resources) of these instruments:

Limited overall due to

a) low incentive levels (charges/taxes),

b) exemptions...

... and the focus on “revenue generation” instead of “incentiveness”

The environmental impact is often resulting from earmarking (supporting projects that enhance the status of water resources/aquatic ecosystems)

A **too limited “knowledge base”** for undertaking a robust and comprehensive assessment (environmental impact, costs, transaction costs, economic impacts/benefits...)

The same applies to any existing regulatory/command and control instruments

Overall, *ex-post* systematic and robust policy evaluation is rare – and difficult to perform because of inadequate knowledge

11 – In conclusion

A wide range of “old” and “new” water management challenges to be tackled... that justify the EU Water Blue Print (see previous presentation)

The need for “new thinking” on economic instruments that clearly focus on “incentiveness”

The challenge of the existing “knowledge base” – much work ahead for “structuring” and complementing the knowledge base....

... including on the economic dimensions of water management (expected economic impacts, costs, ecosystem goods and services... => the relevance of initiatives on water accounts)

A pre-condition for supporting the emergence of a (new) economic model for a water efficient Europe?