

# 6<sup>th</sup> Screening Workshop

## Environmental objectives and exemptions

17 – 19 October 2015

ECRAN 60743

### Use of the key economic indicators in the development of a PoM



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## Structure of the presentation

WFD economic issues

WATECO guidance document

Incorporated trends in water investments in risk assessment

Defining trends in key water issues

Trends in water supply and demand up to 2027

Links between economic analysis, trends and characterisation

Trends in water supply and demand up to 2027

Drina River basin



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## RBMP and trends

- The WFD provides for three RBMP, cycles of 6 years starting in 2009, 2015 and 2021 with the aim of achieving WFD environmental objectives by 2027.
- It is important to identify key trends and other legislative drivers that will influence positively or negatively the management of the water environment to 2027.
- Trends are considered with regulatory policy and drivers and their omission could result in either a failure to meet environmental standards under WFD as a result of not taking into account increased pressures or implementing more measures (bearing higher costs) than is required to ensure compliance.



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## Step 1 Characterization (1)

To prepare an economic analysis of water use in order to analyse:

- Current water uses and their economic importance;
- Future trends in key economic drivers up to 2015/2027;
- Current cost-recovery levels of water services.

### STEP 1.1 – ASSESSING THE ECONOMIC SIGNIFICANCE OF WATER USES

Assess key pressures and impacts (Annex II);  
Analyze point source and diffuse pollutions;  
Investigate future trends in key pressures.



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## Step 1 Characterization (2)

To prepare an economic analysis of water use in order to analyse:

- Current water uses and their economic importance;
- Future trends in key economic drivers up to 2015/2027;
- Current cost-recovery levels of water services.

### STEP 1.1 – ASSESSING THE ECONOMIC SIGNIFICANCE OF WATER USES

Identify human pressures on water bodies;

1. Localise water uses in the river basin district;
2. Identify water uses and services by socio-economic sector (agriculture, industry, households and recreation);
3. Assess the relative socio-economic importance of water uses;
4. Identify areas designated for the protection of economically significant aquatic species.



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## Projecting trends in key indicators up to 2015/2027 (1)

### Objective

Provide economic input into the development of the baseline scenario and the water-body risk assessment.



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# Projecting trends in key indicators up to 2015/2027 (2)

Environment and Climate  
Regional Emission Network **ECRAN**

## Tasks

1. Assess trends of key hydrological and socio-economic factors/drivers that are likely to affect pressures (demography, climate, sector policies, e.g. common agricultural policy, technological development);
2. Identify proposed measures and planned investments for implementing existing water legislation;
3. Forecast changes in pressures based on changes in economic and physical drivers and proposed water-related measures;
4. Construct a Business As Usual scenario for pressures;
5. Conduct a sensitivity analysis on the baseline scenario and identify optimistic and pessimistic scenarios.



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# Projecting trends in key indicators up to 2015/2027 (3)

Environment and Climate  
Regional Emission Network **ECRAN**

## Supplementary info

- Ensure coherence with projections and trends used for other river basins for national and EU policies and climate change.
- The business as usual scenario may first build on certain changes and thus need to be updated in order to integrate changes in uncertain parameters



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## WFD: economic issues (1)

Economic issues are mainly dealt with in Article 5 (*Characteristics of the river basin district, review of environmental impact of human activity and economic analysis of water use*), Annex III (*Economic analysis*) and in Article 9 (*Recovery of costs for water services*) of the Directive.

Economic elements are found in several other parts of the WFD, such as:

To carry out an *economic analysis of water uses* in each River Basin District

**To assess trends in water supply, water demand and investments**

To identify areas designated for the protection of *economically significant aquatic species*

To designate heavily modified water bodies based on assessment of *impact* (including economic impact) on existing uses and *costs* of alternatives for providing the same beneficial objective

To assess current levels of *cost-recovery*



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## WFD: economic issues (2)

To support selection of programme of measures on the basis of *cost-effectiveness* criteria

To assess the potential role of *pricing* in programmes of measures – implications on cost-recovery

To estimate the need for potential (time and objective) derogation from the Directive's environmental objectives based on assessment of *costs and benefits* and of *costs* of alternatives for providing the same beneficial objective

To assess possible derogation resulting from new activities/modifications, based on assessment of *costs and benefits* and costs of alternatives for providing the same beneficial objective

To evaluate *costs* of measures to identify *cost-effective* way to control priority substances



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## From WATECO Guidance document

It provides useful methodological guidance and range of approaches and tools on what to do, how to do it, and when to do it in the context of the implementation of the Water Framework Directive and the preparation of integrated river basin management plans.

The guidance proposes a **three-step approach for providing a coherent and logical framework to the different functions of the economic analysis** required for meeting the Directive's requirements:

**Step 1 - Characterising the river basin** in terms of the economics of water uses, **trends in water supply and demand** and current levels of recovery of the costs of water services;

**Step 2 - Identifying water bodies or group of water bodies not achieving the environmental objective of the Directive** (i.e. **identifying gaps or risks of failure** in achieving objectives);

**Step 3 - Supporting the development of the programme of measures** to be integrated in river basin management plans **through cost-effectiveness analysis** and justifying from an economic point of view possible (time, objective) derogation.



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## Incorporating trends in water investments in risk assessment

Risk assessments should incorporate trends.

Risk assessment may assume no improvements or deterioration will take place in water status until 2027 ie. no trends are built in.

Where possible trends e.g. in water company investment and water demand/abstraction need to be considered into the analysis.

The next phase of characterisation will need to take into account of other trends and so better decide on the development of programmes of measures.



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## Defining trends in key water uses

Foreseen trends in key water uses up to 2027 should also be defined with the final aim to develop a baseline scenario.

Long-term forecasts are needed according to article 5 to identify whether there is a gap in water status between the projected situation and the Directive's objectives by 2027.

In addition to trends in physical parameters and key socio economic drivers, trends in water policy variables (such as planned investments in the water sector or development of new technologies) should be also taken into account.



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## Links between economic analysis, trends and characterisation

The economic analysis required by the WFD, carried out in parallel to the pressure and impact assessment, need to be integrated to help us predict what the **likely socio-economic trends** are in the coming years and how this will affect the activities and resulting pressures on water bodies within each River Basin District.

It helps inform the best combination of measures to ensure that the environmental objectives of the Directive are met.

The planning process needs to build cost effectiveness into to ensure that the least cost is incurred for maximum effect.

The **consideration of trends** are important when assessing the real potential benefits of the WFD to society and the environment.



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# Trends in water supply and demand up to 2027

## Drina River basin

			Water demand		
2027	Population	Total water supply	Household	Industry	Agriculture
	(mil. inhabitants)	(mil. m³)	(mil. m³)	(mil. m³)	(mil. m³)
Bosnia & Herzegovina					
Montenegro					
Republic of Serbia					
Total Drina Basin					



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Thank you!



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