Environment and Climate Regional Accession Network ECRAN

Workshop
Basic and supplementary measures and anticipated effects

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ECRAN 60279

Baseline scenario and selection of the assumptions for Drina PoM

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Structure of the presentation

- Baseline scenario: legal basis
- Aims of the Baseline scenario
- The business as usual scenario
- Assumptions for scenario
- Steps in the design and assessment of Reference scenarios
- Agreement for Drina RB

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The Baseline scenario: definition

The baseline scenario = a projection of the status quo or "business as usual" (BAU), including;

- the existing framework in terms of environmental policies, technological and market conditions, and
- the projection of technological trends (e.g. yields) and of decided policy changes to be implemented until the target year 2021.

The baseline includes a **range of factors, which are difficult to anticipate in terms of their impacts on WFD targets**.

The positive contribution to water protection due to changing framework conditions might take place, but is not secure enough to build the basis of further planning as factors/assumptions need to be checked.

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Baseline scenario: Legal basis

Article 5 requires that each Member State shall ensure that "an economic analysis of water use is undertaken for each River Basin District" and Annex III

Further specifies that this analysis should "take account of the **long term forecasts of supply and demand for water in the RB** and where necessary, to provide estimates of the volume, prices and costs associated with water services and estimates of relevant investment including forecasts of such investments".

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Aims of the Baseline Scenario

The long-term forecasts are needed for:

- Identifying whether there is a gap in water status between the projected situation and the Directive's objectives by 2021/2027
- Identifying potential measures to bridge that gap (if there is one) and construct a cost- effective programme of measures
- Making the relevant calculations necessary for taking into account the principle of cost recovery of water services, taking into account long-term forecasts of supply and demand for water in the River Basin District.

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The business as usual scenario

The business as usual scenario - will only integrate what would happen in a given river basin district **without the WFD**, due to:

- changes in population
- new technologies
- the implementation of water policies resulting from previous European directives
- other sector policies
- climate change, etc.

It will be important to focus on the **forecasting of pressures and of key socioeconomic drivers that are likely to affect those pressures**.

Than, these **forecasts are translated into an assessment of their impact** on water status.
In order to build the baseline scenario, it will be necessary to forecast a set of variables before assessing the impact that these changes will have in terms of pressures and water status.

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Key issues when developing a Baseline Scenario

According to Annex III, it is important that:

- Forecast not only investments but other key parameters and drivers influencing water supply and demand (or more generally all significant pressures)
- Forecasts need to integrate predictable changes in past trends based on a series of assumptions concerning these changes
- Identify variables that can be derived with a high degree of confidence and those that are uncertain
- Build a series of alternative scenarios using alternative assumptions, particularly with respect to policy options. This will allow stressing the main (significant water management) issues in the river basin district, and discussing policy options by simulating their consistency and their long-term significance (e.g. it can be useful to compare two distinct scenarios, one where water prices and charges are kept stable and one where they increase.

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Assumptions for the scenarios

Tasks:

- Develop specific underlying assumptions for the reference cases scenarios, which includes **known policy changes** and **other adaptations** to provide a robust baseline for the analysis required for developing the Program of Measures

- There are two categories of assumptions: **basic** and **specific**

- **Assumptions for the BLS need to be agreed within the Drina River Basin**

Ex: the development of the baseline scenarios (BLS) for assessing the organic input and reduction aims to provide a projection of the 'business as usual' policies and trends which can influence the organic pollution in the Drina River Basin.

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Basic Assumptions

- The fundamental assumption: there are **2 types of drivers** governing the development of the economic, social and environmental conditions in the Drina River Basin and which will influence scenario building:
  - The drivers that operate basically independently of policy-making, set of drivers that are not directly influenced by policies, such as population growth, environmental conditions and climate change.
  - The drivers is a set of policy-related drivers which are the instruments of policy-making, and which will have immediate or medium term implementation effects (on a 5-10 year horizon), such as the EU agricultural policies, enlargement decisions, new environmental policy, and new international agreements.

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Specific Assumptions (1)

- **Specific Assumptions under Independent Drivers**
  - **The assessment of current status** - a critical first step in the planning process since it provides the baseline information concerning the river basin districts. It identifies the types of water bodies present in each river basin district for which environmental objectives must be set, the pressures upon them and any special features that must be taken into account.
  - **Economic input into the establishment of a BLS**
    - Pressures assessment
    - Models
  - **Emissions per inhabitants** in the DRB
  - **Projections for population growth**

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Specific Assumptions (2)

• Specific Assumptions to Policy Related Drivers

- Level of treatment

The assumption for the non - EU MS is that all agglomerations *with more than 10,000 inhabitants* should be provided with biological WWTP's with additional P removal by 2021.

• Connection to sewers and wastewater treatment plants.

It is assumed that the connections of people to sewers stay constant up to 2021.

All people of larger agglomerations which are connected at present to sewers will be connected to a WTTP in 2021.

- **Agricultural development, land use changes**
- **Atmospheric deposition**
- **The use of fertilizers**
- **Livestock development**

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Steps in the design and assessment of Reference scenarios

• Different reference scenarios will be set up by the competent river basin authority, each describing an alternative approach by taking into account **agreed measures** and **economic developments**, to the actions necessary, over and above the baseline, for the purposes of WFD implementation in the river basin district (2021/2027 objectives).

• Scenarios with different environmental benefits due to program of measures in line with EU policies (basic/ supplementary measures) and the related timetable of individual countries (respecting **agreed transitional periods**) will be designed and evaluated though various investigations and tools (models).

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Projecting trends up to 2021

Table 1 National trends in water supply and demand up to 2021

	Population	Total water supply	Water demand for households	Water demand for industry	Water demand for agriculture	Water demand for electricity production
	inhabitants	(m^3)	(m^3)	(m^3)	(m^3)	(in m^3)
Bosnia & Herzegovina						
Montenegro						
Serbia						
Total Drina basin						

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Projecting trends up to 2021

Table 2: National economic growth rates for main economic sectors up to 2021

	Overall growth rate	Industry		Agriculture		Electricity production	
		Growth rate	GAV for industry	Growth rate	GAV for agriculture	Growth rate	GAV for industry
	(%)	(%)	(in 1000 EUR)	(%)	(in 1000 EUR)	(%)	(in 1000 EUR)
Bosnia & Herzegovina							
Montenegro							
Serbia							
Total Drina basin							

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Thank you!

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