Environment and Climate Regional Accession Network ECRAN

Environment and Climate Regional Accession Network (ECRAN)

2nd Screening Workshop at Pilot Drina River Basin

22-23 September 2014,
Sarajevo (Bosnia and Herzegovina)

ENVIRONMENTAL AND CLIMA REGIONAL NETWORK FOR ACCESSION - ECRAN

WORKSHOP REPORT

Activity 2.3: Water Management

2nd Screening Workshop at Pilot Drina River Basin

22-23 September 2014

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List of abbreviations

BA	Bosnia and Herzegovina
BOD	Biochemical Oxygen Demand
BWD	Bathing Water Directive
COD_5	Chemical Oxygen Demand
EC	European Commission
EEC	European Economic Community
EPRTR	European Pollutant Release and Transfer Register
EQS	Environmental Quality Standard
EQSD	Directive on Environmental Quality Standards
ERC	Environmental and Resource Cost
FBiH	Federation of Bosnia and Herzegovina
HRC	Danube RBD in Croatia
HRJ	Adriatic RBD in Croatia
IPPC	Integrated Pollution Prevention and Control
KTM	Key Type of Measures
MS	Member State
MSDF	Marine Strategy Framework Directive
PoMs	Programme of Measures
PS	Priority Substances
RB	River Basin
RBD	River Basin District
RBMP	River Basin Management Plan
RBSP	River Basin Specific Pollutants
RS	Republic of Srpska
UWWT	Urban Waste Water Treatment
WFD	Water Framework Directive
WMWG	Water Management Working Group

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I. Background/Rationale

General information about the workshop

The tasks implemented under Water Management Working Group (WMWG) of ECRAN includes Assistance in the Development of Transboundary River Basin Management Plans (Task 2.3.2). Within the task, a practical support in development of the Programme of Measures (PoMs), as specific part of the River Basin Management Plan, has been initiated for the selected pilot – Drina River Basin.

The Water Framework Directive (WFD) provides an overarching framework to protect and improve the aquatic environment through greater integration between water and land management, and to balance this with other environmental, economic and social priorities when setting environmental objectives. River Basin Management Plan (RBMP) includes objectives for each water body and a summary of the programme of measures necessary to reach those objectives. The Programme of Measures include all of the measures necessary to meet all the WFD objectives for river basin district, including the WFD protected area objectives and measures with the aim of progressively reducing pollution from priority substances and ceasing or phasing out emissions, discharges and losses of priority hazardous substances. Where measures contribute towards both WFD objectives and other objectives, they should be included in the programme of measures to the extent that they are required to achieve WFD objectives

To establish common understanding on PoMs requirements, collect and analyse relevant frameworks, institutional arrangements and other information, including driving issues related to design of an efficient set of measures for achieving environmental objectives (at least good water status) by assessing and linking water status and pressures with the impact of pressures on water status, three screening workshops are foreseen with countries that share Drina River Basin (Bosnia and Herzegovina, Montenegro and Serbia).

The 2nd screening workshop at Pilot Drina River Basin was held from 22 to 23 September 2014 in Sarajevo (Bosnia and Herzegovina) in hotel Holiday inn.

Current state of the affairs with regard to the Programme of Measures in Drina River Basin countries

Assessment of legal frameworks with regard to WFD in Drina River Basin countries showed that the internal structure that supports the PoMs planning is very comprehensive in Serbia (presented full scale of competencies on the level of the WFD) whilst in other countries competencies of other institutions in charge of water management are missing or are not yet recognised as being important. The need for inter-linkage between the Directorate for Water, Department for Water and Soil Protection and Department for Integrated Permits or Ministry for Health in Serbia is identified. The same ministries responsible for transposition of WFD are responsible for transposition of the Flood Directive. A better understanding of basin-scale hydro-morphological implications of flood protection structures should be coordinated.

In Drina River Basin countries development of urban wastewater infrastructure is regulated by the Water Act. In all countries the transposition of the Urban Waste Water Treatment (UWWT) Directive

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is the responsibility of the water sector which simplifies planning and implementation of respective measures.

The situation with water supply varies. The Ministry of Health is involved in the implementation of the Drinking Water Directive (DWD) that is partially transposed in Serbia through Law on Waters and the Law on Food Safety. In Federation of Bosnia and Herzegovina (FBiH), the chain of responsibilities is not clear (law that introduces the regulation). The program of measures has to be coordinated between the ministries of health for water quality indicators and ministries responsible for water related issues pertaining planning and implementation of measures.

The assessment of drivers and impacts important for Drina River Basin showed not only differences in relevance and data availability in three countries, but also within entities in BA. For example a driver - agriculture is of medium relevance for FBiH and Montenegro whilst it is significant for Serbia and Republic of Srpska (RS). Provided information related to the distribution of responsibilities in the implementation of PoMs indicate a need for further elaboration of competent authority role and coordination of activities.

Difference in data availability should be avoided – selection of more flexible modelling approach. The exchange of information is highlighted in order to meet the WFD objectives for transboundary RB and well timed (synchronized) coordinated actions are needed. Classification of statuses should be comparable and agreed upon, PoMs (selection of the key type of measures) harmonized, set of common indicators for the evaluation of the implementation efficiency accepted, monitoring (location, frequency, program and results assessment) agreed upon and communication links should be established preferably through existing transboundary cooperation organisations.

Summary of the main topics covered as per screening workshop

The main topics presented and discussed are as follows:

1. Result of the assessment on screening templates;
2. Development of quantitative basin-wide and water body indicators;
3. Link between pressures and measures
   - Physco-chemical elements,
   - Specific pollutants and priority substances;
   - Register of emissions;
   - Combined approach;
   - Monitoring;
   - Modelling and
   - Status and risk;
4. Introduction on Economic analysis
   - Definition of water uses and water services;
   - Role, cost of the measures (basic and supplementary measures);
   - Managing gaps and uncertainties;
5. Drina river - approach to preparation of the viable PoMs
   - Transboundary context;
   - Selection of quantitative indicators;

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- Monitoring;
- Modelling and
- Estimation of the costs.

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II. Objectives of the workshop

General objectives

The objective of the 2nd screening workshop was to present and promote interactive work, as well as selecting an appropriate approach to prepare Programme of Measures for Drina River Basin.

The approach in preparation of PoMs has to reflect national objectives and international obligations and should take into account available national capacities and already developed transboundary cooperation instruments.

Specific objectives

The specific objectives included:

- Selection of quantitative indicators relevant for the monitoring of the PoMs implementation on both national and transboundary levels.
- Clarification and distinction between physico-chemical elements, specific pollutants and priority substances in context of Commission's strategies to prevent and control pollution.
- Handling of "combined approach" implementation in regular water management practice.
- Improvement of the monitoring in order to fulfil the requirements of WFD especially IMPRESS / PoMs analysis.
- Consideration of advantages associated with modelling approach of Impact - Status - PoMs - Status process for water management practice.
- Clarification of the basic concepts of Economic Analysis in context of PoMs.
- Clarification of differences in implementation of the basic and supplementary measures.

Achieved results/outputs

The workshop achieved the following results/outputs:

- Screening questionnaires analysed and updated;
- PoMs requirements perceived in the context of drivers, pressures and impacts on water status more cleared.
- The concepts of measures and indicators elaborated.
- Distinction between physico-chemical elements, specific pollutants and priority substances in context of Commission's strategies to prevent and control pollution, clarified.
- The advantages of using modelling to facilitate determination of complex relationship between Impact - Status and PoMs - Status anticipated.
- Combined approach implementation in regular water management practice anticipated.
- Economic analysis in the context of PoMs understood.

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III. EU policies and legislation covered by the workshop

In determining what basic measures should be put in place to address the requirements of article 11.3, points a to l (see below), it is necessary to determine:

- what is the existing status of waters (using information from WFD and other programmes – see CIS guidance 3),
- what is the gap to be closed to reach the WFD objectives of "good status" (using information from the article 5 analysis, in particular identified existing and potential pressures and how these have an impact on good status),
- how far will the implementation of measures pursuant to article 11.3.a close the gap, (taking into account in many MS the need to adopt reinforced measures under art. 5.5 of the Nitrates Directive and improve compliance with UWWTD),
- what measures can deliver for WFD but also for other environmental objectives (e.g. MSFD, BWD, air quality, biodiversity).

Programme of <u>basic measures</u> has to comprise at least (Art. 11.3 of WFD):

a. Measures to implement existing Community water legislation and other environmental legislation (set out in Article 10 and in Part A of Annex VI).
   i. The Bathing Water Directive (76/160/EEC).
   ii. The Birds Directive (79/409/EEC).
   iii. The Drinking Water Directive (80/778/EEC) as amended by Directive (98/83/EC).
   iv. The Major Accidents (Seveso) Directive (96/82/EC).
   v. The Environmental Impact Assessment Directive (85/337/EEC).
   vi. The Sewage Sludge Directive (86/278/EEC).
   vii. The Urban Waste-water Treatment Directive (91/271/EEC).
   viii. The Plant Protection Products Directive (91/414/EEC).
   ix. The Nitrates Directive (91/676/EEC).
   x. The Habitats Directive (92/43/EEC).
   xi. The Integrated Pollution Prevention Control Directive (96/61/EC).

a. Measures to implement Article 9 (cost recovery).
b. Measures to promote efficient and sustainable water use.
c. Measures to protect drinking water quality and reduce level of treatment required.
d. Measures to control abstraction from surface and groundwater.
e. Measures to control recharging of groundwater.
f. Measures to control point source discharges.
g. Measures to prevent or control inputs of diffuse pollutants.
h. Measures to address any other significant impacts on status, in particular the hydromorphological condition.

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i. Measures to prohibit direct discharges to groundwater

j. Measures to eliminate or reduce pollution by priority substances.

k. Measures to prevent accidental pollution.

Supplementary measures (see Art. 11.4 of WFD) are:

- those measures planned and implemented in addition to the basic measures, where it is necessary to achieve the environmental objectives of the WFD as established in Article 4 and Annex V, and
- can include additional legislative powers, fiscal measures, research, educational campaigns that go beyond the basic measures and are considered as necessary to achievement of environmental objectives.

Additional measures (see Art. 11.5 of WFD) are necessary to consider in case when a water body probably will not achieve the Art. 4 objectives after the adoption of the measures defined in first RBMP. If the implementation of an additional measure lasts longer than one river basin management planning cycle such a measure should be "address" either as a basic or as a supplementary measure.

The following directives that characterise legal framework of PoMs were included into the screening workshop:

WFD

- Directive 2000/60/EC of the European Parliament and of the Council of 23 October 2000 establishing a framework for Community action in the field.
- Decision 2455/2001/EC of the European Parliament and of the Council of 20 November 2001 establishing the list of priority substances in the field of water policy and amending Directive 2000/60/EC of water policy (WFD).
- 2005/646/EC: Commission Decision of 17 August 2005 on the establishment of a register of sites to form the intercalibration network in accordance with Directive 2000/60/EC of the European Parliament and of the Council.

Groundwater protection

- Council Directive 80/68/EEC of 17 December 1979 on the protection of groundwater against pollution caused by certain dangerous substances.
- Directive 2006/118/EC of the European Parliament and of the Council of 12 December 2006 on the protection of groundwater against pollution and deterioration.

Communal / municipal water service

- Directive 2007/60/EC of the European Parliament and of the Council of 23 October 2007 on the assessment and management of flood risks.
- Council Directive 91/271/EEC of 21 May 1991 concerning urban waste-water treatment
- 93/481/EEC: Commission Decision of 28 July 1993 concerning formats for the presentation of national programmes as foreseen by Article 17 of Council Directive 91/271/EEC.

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- Council Directive 98/83/EC of 3 November 1998 on the quality of water intended for human consumption.
- Council Directive 79/869/EEC of 9 October 1979 concerning the methods of measurement and frequencies of sampling and analysis of surface water intended for the abstraction of drinking.

Dangerous substances

- Council Directive 76/464/EEC of 4 May 1976 on pollution caused by certain dangerous substances discharged into the aquatic environment of the Community.
- Council Directive 86/280/EEC of 12 June 1986 on limit values and quality objectives for discharges of certain dangerous substances included in List I of the Annex to Directive 76/464/EEC.
- Directive 2006/11/EC of the European Parliament and of the Council of 15 February 2006 on pollution caused by certain dangerous substances discharged into the aquatic environment of the Community.
- Council Directive 82/176/EEC of 22 March 1982 on limit values and quality objectives for mercury discharges by the chlor-alkali electrolysis industry.
- Council Directive 83/513/EEC of 26 September 1983 on limit values and quality objectives for cadmium discharges.
- Council Directive 84/491/EEC of 9 October 1984 on limit values and quality objectives for discharges of hexachlorocyclohexane.
- Council Directive 84/156/EEC of 8 March 1984 on limit values and quality objectives for mercury discharges by sectors other than the chlor-alkali electrolysis industry.

Industrial discharges block

- Council Directive 96/61/EC of 24 September 1996 concerning integrated pollution prevention and control.
- Directive 2008/1/EC of the European Parliament and of the Council of 15 January 2008 concerning integrated pollution prevention and control (Codified version).
- Directive 2010/75/EU of the European Parliament and of the Council of 24 November 2010 on industrial emissions (integrated pollution prevention and control) (Recast).

Nitrates and agriculture

- Council Directive 91/676/EEC of 12 December 1991 concerning the protection of waters against pollution caused by nitrates from agricultural sources

Bathing water

- Council Directive 76/160/EEC of 8 December 1975 concerning the quality of bathing water
- Directive 2006/7/EC of the European Parliament and of the Council of 15 February 2006 concerning the management of bathing water quality and repealing Directive 76/160/EEC

Nature

- Council Directive 79/409/EEC of 2 April 1979 on the conservation of wild birds

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- Council Directive 92/43/EEC of the conservation of natural habitats and of wild fauna and flora.

Useful references on practical guides or links to various web sites

European Commission, CICRABC library on Environment: "Implementing Water Framework Directive and Floods Directive"

https://circabc.europa.eu/

EU legislation

http://europa.eu/legislation_summaries/environment/index_en.htm

ECRAN Network

http://www.ecranetwork.org/

RENA Network

http://www.renanetwork.org/

TAIEX

http://ec.europa.eu/enlargement/taiex/

Croatian RBMP/PoMs

http://www.voda.hr/puvp/

Case studies/examples from EU Member States to illustrate practical situations or best practices that have been covered during the training

Croatian RBMP and Programme of Measures

In June 2013, Croatia's government adopted a single river basin management plan (RBMP) that covers both the Danube and the Adriatic RBDs (Table 1). Information on the RBMP was reported to the European Commission in February, 2014.

RBD	Name (English / Croatian)	Size (km^2)*				Countries sharing borders
		Mainland	Islands	Coastal Waters	Total	
HRC	Danube / Dunav	35 101			35 101	Bosnia and Herzegovina, Hungary, Serbia, Slovenia
HRJ	Adriatic / Jadransko	18 185	3 262	13 842	35 289	Bosnia and Herzegovina, Montenegro, Slovenia

Table 1. Overview of Croatia's River Basin Districts (Source: RBMP; Note: * Area in Croatian territory)

The RBMP underlines that the Programme of Measures only contains basic measures. The supplementary measures will be presented in Croatia's second RBMP in 2015.

In terms of geographical scale, nearly all the measures indicated in the River Basins Management Plan are applicable on the entire territory of Croatia; a few refer to areas, such as drinking water protection areas and vulnerable zones in Croatia in accordance with Article 5 of the Nitrates Directive.

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The RBMP contains some information on the authorities and stakeholders responsible for implementing the PoM. The government of Croatia, the Ministry of Agriculture, Hrvatske vode and water supply providers (local authorities) are responsible for implementation of measures aimed at ensuring recovery of operational costs for public water supply and encouragement of efficient use of water supplied for public use. These authorities as well as county authorities also have roles in the implementation of the UWWT Directive (the enterprises running UWWT plants are under local governments or concession).

The Ministry of Agriculture, Ministry of Environment and Nature Protection, Hrvatske vode, and IPPC installation operators are responsible for measures aimed at reducing pressures on water from IPPC installations. The Ministry of Agriculture, Hrvatske vode, producers of fertilisers and plant protection products, custom authorities and farmers are responsible for measures aimed at reducing pollution from nutrients, especially nitrates.

Measures related to agriculture

The RBMP refers in particular to agricultural pressures on water quality, due to the use of manure and mineral fertilizers as well as pesticides; runoff from livestock grazing is also noted. Water use for agriculture is not indicated as a pressure. The RBMP cites a range of measures to address these pressures as presented in Table 2 below.

Measures	HRC	HRJ
Technical measures		
Reduction/modification of fertiliser application	✓	✓
Reduction/modification of pesticide application	✓	✓
Change to low-input farming	✓	✓
Hydromorphological measures		
Measures against soil erosion		
Multi-objective measures	✓	✓
Water saving measures	✓	✓
Economic instruments		
Compensation for land cover		
Co-operative agreements		
Water pricing	✓	✓
Nutrient trading		
Fertiliser taxation	✓	✓
Non-technical measures		
Implementation and enforcement of existing EU legislation	✓	✓
Controls		
Institutional changes		
Codes of agricultural practice		
Advice and training		
Awareness raising		
Measures to increase knowledge for improved decision-making		

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Measures	HRC	HRJ
Certification schemes		
Zoning		
Specific action plans/programmes		
Land use planning		
Technical standards	✓	✓
Specific projects related to agriculture		
Environmental permitting and licensing	✓	

Table 2. Types of WFD measures addressing agricultural pressures, as described in the PoM (Source: RBMP)

Specific measures include:

- the development of "ecological agricultural production" in drinking water protection areas, and construction of storage capacities for manure in these areas;
- control and reduction of use of nutrients, especially nitrogen;
- the establishment of vulnerable areas and the adoption of an action programme for protection of water from agricultural pollution under the Nitrates Directive;
- a water protection fee on fertiliser producers, depending on the amount of fertiliser placed on the market;
- establishment of maximum permitted levels of pollution of soil; and
- issuance of water abstraction permits for irrigation.

Measures related to hydromorphology

The RBMP states that it does not include measures for existing hydromorphological pressures; it does, however, include a reference to a future measure to establish rules for the “maintenance of water flows”, with the goal of limiting hydromorphological changes by water construction.

Measures related to groundwater

The RBMP mentions few pressures on groundwater bodies. It notes that abstraction of groundwater is a potential risk in the Zagreb area.

A range of measures are reported to WISE as relevant for groundwater protection. These include:

- controls over the abstraction of fresh surface water and groundwater;
- the prohibition of direct discharge of pollutants to groundwater: only treated waters can be discharged; and
- a range of general measures on discharges are noted: issuing authorisations for exploitation; water evaluation within the environmental conditions, whereby the conditions for the emission of waste waters are determined; the obligation to request a renewable permit to release waste waters (valid for six years), obligation to report any emission of waste waters with limit values determined, and determination of limit values.

Croatia’s RBMP does not provide information on the international coordination of measures related to groundwater.

Measures related to chemical pollution

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The RBMP does not specify that Croatia has an inventory of sources of chemical pollution to water bodies. The RBMP cites the following measures to address chemical pollution:

- water permits for discharge of waste waters;
- production, placing on the market and use of chemicals requiring prior registration and in certain cases approval; many specific substances, including certain pesticides, have been prohibited or limited;
- a water fee for the production and import of plant protection products; and
- limiting the use of certain pollutants in agricultural land in accordance with the Ordinance on Protection of Agricultural Land from Pollution.

Measures related to Article 9 (water pricing policies)

The RBMP notes a broad range of water uses in Croatia, including abstraction for households, industry and agriculture; water supply and wastewater treatment; navigation and ports; and flood protection. Croatia's Water Act, however, has a narrow definition of water services as services of public water supply and public sewage (Art. 3(94)). Moreover, a 2010 Decree has established a methodology for setting the minimum prices for water service utilities.[1] The Decree lists costs which are included in water services prices (covering water supply and wastewater treatment). These include: material costs, costs of services, concession fees where applicable, costs of employees, financial expenditures, long-term property amortisation costs and short-term property costs. Information was not found on the extent to which these provisions have been implemented across Croatia.

Additional measures in protected areas

The RBMP does not provide information on additional measures in protected areas.

[1] The Decree on the Lowest General Price of Water Services and Type of Costs which are Included in Water Services Price ("O.G.", No. 112/10)

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IV. Highlights from the workshop

1. Result of the assessment on screening templates

The overall assessment on provided information showed incompleteness. A contribution of Republic of Srpska was missing. The communication links between countries that share RB should be established preferably through existing transboundary cooperation organisations (ICPDR, ISRBC).

Provided information related to the distribution of responsibilities in the implementation of PoMs require further elaboration of competent authority role and coordination of activities.

Assessment of the relevance and significance related to various issues differ. The reasons should be clarified to avoid misinterpretation. Difference in data availability should be avoided by selection of a more flexible modelling approach.

In order to meet the WFD objectives for transboundary RB, well timed (synchronized) coordinated actions are needed. This presumes:

- Classification of statuses should be comparable and agreed upon.
- PoMs (selection of the key type of measures) are harmonised.
- Set of common indicators for the evaluation of the implementation efficiency accepted.
- Monitoring (location, frequency, programme and results assessment) is agreed upon.
- Communication links are established.

2. Development of quantitative basin-wide and water body indicators

Introduction

In the introductory of this topic, a definition of indicators and its link with measures is provided taking into account spatial, applications and temporal (time) scale and aspects of measures. It was stated that different measures will operate over different timescales. The programme of measures should include all of the measures necessary to meet the objectives set out in the RBMP.

Where the objective has an extended deadline beyond the end of the 6 year planning period, the programme of measures should include the measures that are envisaged as necessary to meet that objective all the way up to the extended deadline, not just the measures that will be taken during the 6 year plan period (although the focus of the RBMP will be on the current planning cycle).

Administratively, measures may be applied at international, national, regional or local scale. Different scales will be appropriate for different types of measure. However, spatial scale or coverage where measures can be applied range from basin, district through sub-basin to water bodies. Measure can be applied anywhere (for example they could include changes in land management).

Key Types of Measures

Likewise, a concept of Key Types of Measures (KTM) is explained. The concept was developed in 2012 to simplify reporting as consequence of the large differences in the level of detail reported in 2010. Some Member States reported 10-20 measures whilst others reported hundreds or even

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thousands. KTMs are groups of measures identified by Member States in the PoMs which target the same pressure or purpose.

The individual measures included in the PoM (being part of the RBMP) are grouped into KTMs for the purpose of reporting. The same individual measure can be part of more than one KTM because it may be multi-purpose, but also because the KTM are not completely independent silos. There is certain degree of overlap to ensure that the Member States can more easily find the way to report their PoMs.

It was stated that KTM are expected to deliver the bulk of the improvements through reduction in pressures required to achieve WFD Environmental Objectives. KTM may be one national measure but it would typically comprise more than one national measure.

It is expected that the ECRAN countries will be able to prepare their PoM by associating their national measures with the predefined KTM. Nevertheless, for transboundary river basin, PoMs need to be consolidated and harmonised.

Predefined Key Types of Measure for the 2016 reports are based on the KTM defined for the 2012 progress reports on implementation of programme of measures, the new ones reported by Member States in 2012 and commonly reported significant pressures not previously incorporated by predefined KTM.

Applicability of KTM for significant pressures and chemical substances causing failure of objectives was also explained. This can be done by mapping significant pressures, Priority Substances causing failure of good chemical status or other relevant objectives, and River Basin Specific Pollutants (RBSP) causing failure of good ecological status or potential to the predefined KTM.

It was underlined that more than one KTM may apply to any particular pressure or substance depending on the impacts of the pressure (e.g. nutrient pollution, organic pollution or chemical pollution).

Quantitative indicators for the scale of pressures

Quantitative indicators are considered a management tool and represent the best estimate that the Member State can provide to show the gap to achieving good status or potential and the intended progress by a certain deadline. The quantification of pressures, as with any other process in the planning cycle, is subject to uncertainties. There will be cases where data and information are not available to produce a useful quantitative indicator. This may be particularly the case for certain pressures which are more difficult to quantify and/or in complex RBD subject to many pressures, where it is difficult to disaggregate the pressure-measure relationships. On this basis, the Member States are requested to report quantitative indicators for pressures to the best extent possible and for the pressures where this information is available or can be derived on the basis of a reasonable effort. In this regard, the lack of reporting of quantitative indicators for pressures does not imply a failure to comply with the WFD obligations.

Indicators are developed in such a way that they represent the gap to achieving good status or potential for each given significant pressure. Therefore, an indicator value of 0 would mean a level of pressure compatible with 100 % good status or potential, i.e. which would enable the affected water

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bodies to achieve good status or potential. However, given that the affected water bodies may be subject to other pressures, they may still not achieve good status or potential. In addition, good status or potential may not be achieved immediately due to natural conditions or the delayed response of the ecosystem.

Quantitative indicators for the scale of pressures should be developed for each pressure or chemical substance to provide information on expected gap that has to be filled in order to achieve objectives (status indicators) i.e. reduction of pressures. In addition, quantitative indicators for the scale of the pressure or chemical substance failure are given for each significant pressure and, generically, for Priority Substances. These quantitative indicators are intended to provide information on the expected gap to be filled at the start of the second planning cycle in 2015 in terms of the scale of the pressure that needs to be reduced to achieve WFD Environmental Objectives.

In terms of the achievement of good ecological status or potential, the gap to be filled would equate to the required reduction in pressures (e.g. loads of nutrients) so that water bodies at (or expected to be at) less than good status or potential in 2015 would achieve good status or potential. Values of the quantitative indicators are also required for 2021 and 2027, reflecting the scale of the pressure that would still be required to be tackled so that WFD Environmental Objectives can be achieved. The values for 2021 and 2027 would, therefore, be expected to be lower than the value for 2015.

It is recommended to report one standard indicator for each pressure or chemical substance (number and length/area of water bodies affected by the relevant significant pressure or chemical substance) and at least one other predefined indicator specifically relevant for the individual pressure or chemical substance (as many as the Member State wishes). On the one hand, this will provide comparable information on the starting point and expected progress (using the standard indicator); and on the other hand, will enable country to choose the indicator for the pressure or chemical substance which is more suitable to their specific condition or for which information is readily available

Reporting of quantitative indicators for 2027 is optional. A value of the pressure indicator larger than 0 in 2027 would be interpreted as meaning that the Member State expects to rely on Article 4(5) setting lower Environmental Objectives.

Quantitative indicators for the scale and progress with implementation of measures

One or more quantitative indicators have been predefined for each KTM. These are intended to provide information on the scale of the measure that is expected to reduce the pressures to levels that enable WFD Environmental Objectives to be achieved. The value of the indicator at the start of the second planning cycle in 2015 would give information on the scale of the measure (e.g. number of wastewater treatment plants that need upgrading, the number of barriers that need modification to enable continuity, the length of buffer strips required to reduce diffuse emissions, etc) that would reduce the pressures to a level which would enable affected water bodies to achieve WFD Environmental Objectives. As with pressures, implementing certain KTM may not be sufficient to achieve the objectives in a multi-pressure context.

Values of the quantitative indicators are also required for 2021 and 2027 to provide information on the expected progress of the measures over the second and third planning cycles. If all measures

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planned in 2015 were fully implemented and made operational by 2021, then the value of the indicator in 2021 would be 0. If the values of the indicator in 2015 and 2021 are the same it means no progress is expected between these dates (i.e. during the second planning cycle). The indicator values should get smaller as progress is made in the implementation of the measures.

It can be selected as many of the predefined quantitative indicators of KTM implementation as is appropriate to the conditions and situation in country, but at least one predefined indicator for each KTM should be selected.

The quantification of measures to achieve the Environmental Objectives of the WFD is considered part of the WFD implementation. However, it can be a challenging task, in particular for pressures for which the pressure-measure relationship is subject to larger uncertainties and also in complex RBDs subject to many pressures. There will be cases where data and information are not available to produce a useful quantitative indicator.

As with the quantitative indicators for pressures, quantitative indicators for measures to the best extent possible and for the measures, where this information is available or can be derived on the basis of a reasonable effort, should be reported. In this regard, the lack of reporting of quantitative indicators for measures does not imply a failure to comply with the WFD obligations

KTM can be relevant for more than one pressure, and for a single pressure, more than one KTM may be applicable. This many-to-many relationship requires a flexible reporting structure. The same significant pressures can be reported more than once if it is linked to several KTM.

It will be possible to add other new KTM that are important in a particular RBD where the significant pressure being tackled is not covered by one of the predefined KTM.

Indicators are developed in such a way that they represent the gap to achieving good status or potential for each given measure. Therefore, an indicator value of 0 would mean a KTM compatible with 100 % good status or potential, i.e. which would enable the affected water bodies to achieve good status or potential. However, given that the affected water bodies may be subject to other KTM, they may still not achieve good status or potential. In addition, good status or potential may not be achieved immediately due to natural conditions or the delayed response of the ecosystem.

3. Link between pressures and measures

Introduction

The main topic of the presentation is Annex VIII and X Water Framework Directive, Inventory of emissions discharges and losses and combined approach.

In the first part of the presentation, is given a short description of the elements which used to assess the ecological and chemical status.

Specific pollutants

With regard to this topic it was pointed out that under the Water Framework Directive, Member States are required to set quality standards (according to Annex V Point 1.2.6) or the manual of the CIS-guidance No.27 for rivers basin specific pollutants (RBSPs)(as listed in Annex VIII, Points 1-9) and

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to take action to meet those quality standards by 2015 as part of the ecological status assessment (Article 4, 11 and Annex V Point 1.3).

Annex VIII defines specific pollutants as substances that can have a harmful effect on biological quality, and which may be identified by Member States as being discharged to water in “significant quantities”.

Priority substances

Within this topic, the following important points were explained:

- Article 16 of the Water Framework Directive (2000/60/EC) (WFD) sets out "Strategies against pollution of water", outlining the steps to be taken. The Annex II of Directive on Environmental Quality Standards (Directive 2008/105/EC) (EQSD), also known as the Priority Substances Directive, set environmental quality standards (EQS) for the substances in surface waters (river, lake, transitional and coastal). The EQSD established:
  - ✓ the list of 33 priority substances in Annex II as Annex X of the Water Framework Directive (WFD) and 8 other pollutants from daughter directive on dangerous Substances (76/464/EEC);
  - ✓ the possibility of applying EQS for sediment and biota, instead of those for water;
  - ✓ the possibility of designating mixing zones adjacent to discharge points where concentrations of the substances in Annex I might be expected to exceed their EQS;
  - ✓ a requirement for Member States to establish an inventory of emissions, discharges and losses of the substances in Annex I;
  - ✓ an obligation to review the list of priority substances by 13 January 2011.
- Directive amending the WFD and EQSD (COM(2011)876) included:
  - ✓ The list of 15 additional priority substances, 6 of them designated as priority hazardous substances;
  - ✓ stricter EQS for four existing priority substances and slightly revised EQS for three others;
  - ✓ the designation of two existing priority substances as priority hazardous substances;
  - ✓ the introduction of biota standards for several substances;
  - ✓ provisions to improve the efficiency of monitoring and the clarity of reporting with regard to certain substances behaving as ubiquitous persistent, bioaccumulative and toxic substances;
  - ✓ a provision for a watch-list mechanism designed to allow targeted EU-wide monitoring of substances of possible concern to support the prioritisation process in future reviews of the priority substances list.

Inventory of emissions discharges and losses

With regard to this topic, it was pointed out that EC requires establish an inventory of emissions, discharges and losses of priority substances for each river basin district alongside WFD characterisation analysis.

According to Article 5 of the Directive 2008/105/EC on Environmental Quality Standards in the Field of Water Policy (the EQS Directive), an inventory of emissions, discharges and losses of all Priority Substances (PS) and pollutants listed in Part A of Annex I to this Directive should be established. The technical guidelines for the establishment of inventories states that if a substance meets particular

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relevance criteria then an "in-depth" inventory of emissions, discharges and losses from point and diffuse sources as well as loads transported in rivers should be provided.

The inventory is an important input for the reporting on the possible need to amend existing acts, and the need for additional specific Community-wide measures such as emission controls.

The inventories should give information on the relevance of priority substances (PS) at the spatial scale of the RBD or the national part of an international RBD, and on the loads discharged to the aquatic environment. These inventories are to be compiled for every RBD or the national part of international RBDs and to provide not only yearly inputs but also to include, as appropriate, concentrations in sediment and biota (e.g. helping to substantiate the relevance of a substance for the RBD).

Croatia has created an European Pollutant Release and Transfer Register (EPRTR), which provides an inventory of pollutant releases (including to water) for large facilities. Whilst the RBMP does not refer to the EPRTR, it does provide information on total loads of several pollutants and sectors, including households and enterprises for several pollution indicators (BOD_5, COD, total nitrogen and total phosphorus).

Combined approach

It was highlighted that human activities put water resources under high pressure through abstraction emissions of pollutants from manufacturing processes to water courses, nitrates and phosphates mainly from agricultural fertilizers and sewage effluents which cause eutrophication, depletion of the oxygen supply and often the complete collapse of the local water ecosystem. The discharges of urban waste water are the second most serious cause of water pollution by eutrophication.

The WFD (Recital 40) mandates a 'combined approach' to pollution prevention and control by:

- limiting pollution at the source by the setting of emission controls (e.g. Waste water, agricultural fertilisers). The relevant legislations are inter alia the Urban Waste Water Treatment Directive, the Nitrates Directive and the Integrated pollution prevention and control (until 2013) Directive;
- establishing water quality objectives for bodies of water (to ensure that those reduced emissions fit into the local or regional environment, complying with the objective of 'good status' and
- mixing zones

Programmes of measures should limit values in order to control emissions from individual point sources and environmental quality standards, limit the cumulative impact of such emissions as well as of diffuse sources of pollution. The emissions limit values have to be set in line with EC, national and regional legislation, inter alia, with the Directive on Integrated Pollution Prevention and Control (IPPC) and the Urban Waste Water Treatment Directive for installations and discharges covered by these Directives. To achieve needed degree of control, the competent authority should identify and monitor all types of discharges and other impacts in the catchment; grant permits for the discharge of effluents and enforce compliance with permit conditions; and undertake pollution prevention

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activities by enforcing protection zones, or by controlling activities that could have adverse impacts on the status of water.

For waters used for drinking water abstraction, as they should be subject to particular protection, MS should set environmental quality standards, meeting the requirements of the Drinking Water Directive, for each significant body of water that is used for abstraction or that may be used in the future.

Modelling

Based on findings of the "WORKSHOP ON UPDATING WFD ARTICLE 5 ANALYSIS AND MAKING BETTER USE OF THIS INFORMATION IN THE SECOND CYCLE RIVER BASIN MANAGEMENT PLANS", held in Brussels, on 21 January 2014, the fundamental links between key articles in the WFD, particularly Article 4 (Objectives), Article 5 (Pressures), Article 8 (Monitoring) and Article 11 (Programmes of Measures was not evident in first River Basin Management Plans (RBMP). The logic of the linkages between the Article 4 WFD objectives, the Article 5 analysis the Article 8 monitoring requirements and the development of measures under Article 11 is simple in conception but presents many analytical challenges and questions in application.

The range of different pressures affecting waters across Europe and the range of potential measures to address these is so large that many different tools, analytical techniques and studies can be appropriate in each circumstance. However, it is important to ensure the use of the most appropriate and accurate analytical tool.

For many different types of pressure increasingly sophisticated models have been developed and used. These may examine hydrological flows in a catchment to understand the impacts of abstractions and impoundments, they may explore nutrient movements in a catchment to identify key sources, they may examine the behaviour of a priority substance through water column, sediment and biota.

Models are also important in predicting the likely impact of measures i.e. when would their implementation deliver WFD objectives. Where pressures are removed, models and analytical studies may predict rates of ecosystem recovery (e.g. structure removed to allow natural flows, dredging stopped, etc.).

The use of models and the increased availability of relevant information from monitoring programmes (and from other sources) enable improved verification of model results and assumptions that have been used for previous planning cycles. This is a critical element of the iterative process of river basin planning.

Within modelling session, a simplified scheme of the RBMP was described with the main links between its components highlighted. Also, it was stressed that establishment of the links is not required only within the plan, but also between certain components of consecutive plans for the same river basin.

A modelling tool used for development of RBMP in Croatia was presented as example.

The main and most important features of the tool were highlighted:

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- It is developed in the form of building blocks, enabling very short development time for the preliminary outputs, gradual improvement and addition of new functionalities as required.
- Crucial element of the tool is pressure and model-based assessment of ecological status, providing common interface for all other components and enabling assessment of programme of measures.
- It is developed to utilise all relevant existing data, in order to enable bridging of the period in which first WFD compliant data set will be collected, enable use of existing knowledge and experience and help in planning of future data collection.

Pressure and impact analysis was based on water quality balance of physico-chemical and chemical constituents as well as on hydro morphological assessment. For water quality balance, data about point and diffuse pressures were used as well as monitoring data from existing water quality monitoring network. Hydromorphological assessment was based on existing spatial database on water management structures and activities.

Some additional information about tool, such as spatial data management, reporting requirements, supplementary products (proposal for the spatial layout of operative monitoring, proposal for the referent sites, water body status reports issuing etc.) were provided during presentation.

The several questions, to encourage discussion were prepared by the speaker, included consideration of needs and use of tools for RBM planning in the ECRAN countries and the most appropriate development approaches, having in mind not only the national rather international context of Drina RB.

4. Introduction on Economic analysis

As introduction for the session, WFD related articles on economic analysis were recalled. It was stressed that Article 5 of the Water Framework Directive (WFD) requires Member States to undertake an economic analysis of water uses according to the specifications of Annex III; Article 13 and Annex VII requires Member States to send summary reports of the analyses required under Article 5 and Annex II as part of the first river basin management plan.

Annex III of the WFD Directive stipulates that the economic analysis of water uses should contain enough information in sufficient detail (taking account of the costs associated with collection of relevant data) in order to:

- make the relevant calculations necessary for taking into account the principle of recovery of the costs of water services under Article 9, taking into account long term forecasts of supply and demand for water in the river basin district and where necessary;
- make estimates of the volume, prices and costs associated with water services;
- make estimates of the relevant investment including forecasts of such investments; and
- make judgements about the most cost-effective combination of measures with respect to water uses to be included in the programme of measures under Article 11 based on estimates of the potential costs of such measures.

The Water Framework Directive is the first time in EU environmental policy that economic principles (e.g. polluter-pays-principle), economic tools and methods (e.g. cost-effectiveness analysis) and

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economic instruments (e.g. environmental charges and taxes) are explicitly integrated into a piece of EU water legislation. This is based on the understanding that economic principles and instruments are potentially important tools in managing the pressures that affect Europe's waters.

WFD set three general concepts, closely related but not equivalent, each one imposing specific requirements on economics in general and water pricing schemes specifically:

- Incentive pricing deals with the way water users pay for their use and whether the right price signals are transmitted, i.e. it addresses the question how water is being paid for and how the water price affects the behaviour of water users.
- The polluter-pays-principle establishes how environmental costs should be covered among economic agents i.e. it looks at the adequacy of contributions from the different agents based on their role in causing these costs.
- Cost recovery establishes the overall amount that users are charged for water services. The WFD foresees an adequate degree of recovery, not only to the financial costs for the provision of a water service, but also of the costs of associated negative environmental effects (environmental costs) as well as forgone opportunities of alternative water uses (resource costs).

The WFD introduces the principle of full recovery of the costs of water services in accordance with the polluter pays principle, promoting in addition the process of adopting standards related to environmental and resource costs caused by the existing users of water resources and aquatic ecosystems. The price of water shall ensure adequate recovery of water services, including environmental and resource costs. Establishing the price that reflects the real value of water and contributes to long-term sustainable management of water resources is not an easy task.

With respect to its efficiency and integrity, water pricing is critical (sensitive) to the achievement of objectives (to achieve and maintain at least good quantitative and qualitative water status).

The transposition of principles into the actual pricing policy is somewhat ambiguous. The approaches and methods of calculation, related in particular to ERC, are the subject of discussion between the MS or the MS and the EC. There is also the question of how much do the economic instruments used in the water pricing policy, and do they at all, contribute to the achievement of the environmental objectives under the WFD.

Discussion on the recovery of costs of water services and on identifying the efficiency of the price of water in the present economic and financial crisis is essential (affordability).

The EC has initiated the improvement of standards/rules, with the period of its implementation coinciding with the 2nd planning cycle. Consequently, additional guidelines shall be applied in the preparation of the RBMP for 2016-2021.

Water services and water use

Definition and clarifications on water use was given. Defined by the WFD, includes all services which provide, for households, public institutions or any economic activity:

- abstraction, impoundment, storage, treatment and distribution of surface water or groundwater;

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- wastewater collection and treatment facilities which subsequently discharge into surface water.

Water services together with any other activity (all "anthropogenic" pressures, point and disperse) having a significant impact on the status of water.

Unlike for the services, the WFD does not specify a list of_"water uses" (assumed: navigation, hydropower generation, agriculture, industry, households.

Integration into Art 9.

It was highlighted that under Article 9, Member States shall ensure an adequate contribution of the different water uses to the recovery of the costs of water services (based on the economic analysis).

Example 1: Agriculture as a source of diffuse pollution is not a "water service" but is "water use" (under the definition of having an impact on the status of water) whilst the use of water in agriculture, e.g. irrigation, is a "water service".

WFD promotes and expects the introduction and/or identification of:

- Not only costs of the provision of water services (most frequently water supply and wastewater collection and treatment*), but also
- Identification of costs associated with negative environmental impacts (environmental costs) of different water uses, and
- Identification of costs of foregone opportunities of potential water users (resource costs).

The European Commission holds a view that agriculture, navigation, use of water for hydropower and cooling, flood defence, etc. are also services.

Speaker also pointed out that a biggest barrier to the harmonization of the pricing policies is the definition of the term "water services" (services other than water supply and wastewater services caused by anthropogenically induced changes, e.g. hydropower plants as a water service provided to the producers of electric energy, agriculture…).

Environmental Resource Cost

Environmental and resource costs (ERC) are most often based on a "cost-based" assessment and include:

- Internal financial costs of implementing control measures, e.g. treatment costs, etc.;
- External financial costs of implementing measures or a share in the treatment cost by one sector at the expense of pollution deriving from other sectors; and
- External environmental costs (residual environmental cost) or deterioration cost (or foregone opportunity) from the existing abstraction and discharge activities.

The above costs shall be included in the economic analysis and calculation of cost recovery.

Operation and maintenance costs have mostly achieved acceptable recovery of costs by the water users, which cannot be said for investment costs (the price does not reflect the needs).

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As regards environmental and resource costs, it can be said that the process of taking these into account has partly begun by introducing the water use and protection fees. For now, these mechanisms, with the level at which they are established, have a role of an additional financing source for the recovery of costs of water services (investment). However, their symbolic level can hardly achieve the full recovery of the ERC.

A very low rate of recovery of costs of water services is recorded in the agricultural sector; the ERC are rarely taken into account. The problem (or the consequence) is the fact that the water and wastewater sectors, together with the industrial sector, frequently bear the heaviest burden of the principle of the recovery of costs of water services.

EC requires the following steps to move forward:

- Introduction of unambiguous standards and interpretations which imply equal interpretation of the principle of the calculation of costs and their recovery in the Member States.
- Collection and analysis of experience in the applied pricing policies; and
- The most demanding and the most important step is the need for:
- ✓ A wide discussion on additional economic instruments and calculation methods for all water uses,
- ✓ Including also diffuse sources of pollution,
- ✓ Hydro-morphological alternations, and
- ✓ Services provided by the aquatic environment.

The ECRAN countries are advised to take care on accompanied tasks to be undertaken, as follows:

- Analyse all water services (and water users) and associated costs (construction, operation, maintenance, depreciation, ERC)
- Which of the existing (or planned) economic instruments can be considered ERC (need not be called like that),
- ✓ Environmental costs (calculation of costs of environmental recovery)
- ✓ Resource cost (calculation of cost of foregone opportunities)
- Analyse economic instruments (and innovative) for all the loads, in particular for diffuse pollution, agriculture, use of water resources, etc.
- Analyse which uses of water and aquatic ecosystems (when actually all of them) should be taken into account when calculating the ERC and whether these should be clearly specified (unit cost).

What to take into account under "Investments and other costs"?

For cost of measures the, following aspects were described:

- Capital and investment costs include all the costs of construction, depreciation, loans, interest, etc.
- Operation and maintenance costs include all the costs essential for safe and reliable operation (or function/use).
- The above costs shall be included in the economic analysis and calculation of cost recovery.

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It was pointed out that an environmental and resource costs are most often based on a "cost-based" assessment and include internal financial costs of implementing control measures, e.g. treatment costs, etc.; external financial costs of implementing measures or a share in the treatment cost by one sector at the expense of pollution deriving from other sectors; and external environmental costs (residual environmental cost) or deterioration cost (or foregone opportunity) from the existing abstraction and discharge activities. These costs shall be included in the economic analysis and calculation of cost recovery

The economic analysis describes the procedure of identifying measures and economic impacts. A cost-effectiveness analysis helps in the selection of the best alternative measure (activity or process) which achieves the set objective with the lowest resource consumption. In the cost-effectiveness analysis, all the efforts are directed at achieving the set objective with the lowest cost.

On the other hand disproportionate costs are significant for the justification of less stringent environmental objectives for specific WBs when they are so affected as a result of human activities that the overall costs of the full achievement of the objectives are disproportionate in relation to the benefit thus gained.

5. Drina river - approach to preparation of the viable PoMs

WFD principles transferred in water resources management presume:

1. The integrated planning at the scale of Drina RB, from characterization to the definition of measures to reach the environmental objectives.
2. A comprehensive assessment of pressures, impacts and status of the aquatic environment (including from the ecological perspective).
3. The economic analysis of the measures proposed/taken and the use of economic instruments.
4. The integrated water resources management principles but encompassing **environmental objectives with water management and related policies objectives (shift from management to governance - capacity to generate and implement applicable policies**).
5. Public participation and active involvement in water management / governance

In order to meet the WFD objectives for Drina RB, well timed (synchronized) coordinated actions are needed in such way that:

- Classification of statuses should be comparable and agreed.
- PoMs (selection of the key type of measures) harmonized.
- Set of common indicators for evaluation of the implementation efficiency accepted.
- Monitoring (location, frequency, programme and results assessment) agreed.
- Communication links established.

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Conclusions

Ad1.

1. The result of the assessment on screening templates showed that data is not complete. However, lack of data does not imply doing nothing. Even a small set of data can be indicative if it is well bounded and used for assessment at expert level.
2. The jurisdiction is fragmented, therefore it is important to know who is planning, who implements, who oversees the implementation (and evaluates) to be able to establish coordination between institutions.
3. Balance approach in the case of cross-border cooperation is needed to upkeep measure being seen in a wider context.
4. Additional discussion may clarify the need for institutional arrangements assessment on the national level.
5. The screening templates will be re-submitted in order to allow for update, as requests (what and why) are clearer after screening exercise and explanation given at the workshop.
6. The screening templates shall be submitted to all ECRAN countries by the end of November.

Ad2.

1. It is important how determine the measures - KTM, drivers, pressures. It must be at least one common indicator (for example length of water body) to which the measure applies to in order to assess the cumulative effects;
2. It must be at least one specific indicator relevant to a certain pressure.
3. As some measure will slowly show the effects i.e. good water status (biological), the time constrain should be taken into account.
4. Indicators must have an initial value. When they reach a value of 0, then the pressure level is compatible with 100% good status / potential.
5. Whilst designating indicators, take into account the uncertainty and reliability.
6. The specific indicators related to national context can be developed

Ad3.

1. Besides the set of Priority Substances laid down in Annex X of the Water Framework Directive 2000/60/EC (WFD), which are regulated and to be monitored at EU level, the EU pollutants of regional or local importance (in particular substances listed in WFD, Annex VIII) and provide environmental quality standards (EQS), monitoring schemes, and regulatory measures for them need to be provide. This means that ECRAN countries also will need to decide which candidate substances require further investigations and which substances then need to be declared as River Basin-Specific Pollutants (RBSP). This requires assessments of impacts as well as prioritisation efforts and strategic screening for substances possibly causing concern.
2. According to Article 5 of the Directive 2008/105/EC on Environmental Quality Standards in the Field of Water Policy (the EQS Directive), an inventory of emissions, discharges and losses of all Priority Substances (PS) and pollutants listed in Part A of Annex I to this Directive should be established.
3. The WFD takes a ”combined approach” (emission limit values and water quality standards) to pollution control.

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4. Although modelling approaches used to link pressures to measures are not perfect, they can be used as building blocks that enable a gradual improvement. A modelling requires permanent development and adjustment to the dynamic environment which for complex cross-cutting pressure and measure issues, cannot be easily maintained.
5. Establishing a link between pressures and measures is central to effective delivery of the WFD

Ad4.

As a starting point, the actions taken on the level of a water body include:

1. Water status assessment;
2. Definition of water protection objectives;
3. Identification of risks and measures for their elimination; and
4. Justification of derogations in cases when the full achievement of the established objectives is not possible.

In the RBM planning process, economic analyses support decision-making:

5. Taking into account the principle of recovery of the costs of water services and adequate contribution of different water users;
6. Selection of the most cost-effective combination of measures in respect of water uses to be included in the PoM;
7. Justification for the need for derogation from the set objectives and deadlines due to socio-economic reasons (disproportionate costs, infeasible financing).

Assessment of overall costs of the PoM shall include consideration of:

8. Economic justification for potential derogations (for the selection of supplementary measures);
9. Financial and budgetary implications of the selected programmes;
10. Assessment of the cost recovery levels with the proposed measures.

The analysis on disproportionate costs comes after the cost-effectiveness analysis of potential measures in relation to the most cost-effective measure. Interests of different stakeholders in a RBD shall be taken into account and the allocation of costs of the proposed measures is an important element of the analysis.

Ad5.

In harmonization of the PoMs on Drina RB and any other transboundary RB, the national specifics and differences should be noted and respected especially in understanding terms such as:

1. Chain of obligation and responsibilities (on the national and international level);
2. Prioritization criteria;
3. Affordability, willingness to pay;
4. (full)Cost recovery, cost/benefit, cost efficiency, etc.;
5. transitional periods for the implementation of the basic measures;
6. Interpretation and procedures related to implementation of Art. 4.3(designation of artificial or heavily modified wb) 4.4(extension of deadlines), 4.5(less stringent objectives) and 4.6(temporary deterioration due to natural causes or force majeure);

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7. Interpretation and procedures related to the implementation of Art. 4.7(new modification).

Ad 6.

1. The regional training will be the opportunity for the improvement of communication links with regard to:
    - Agenda / topics,
    - Hosting / moderation,
    - Back to back event,
    - Accompanying / supplementary activities.
2. Screening templates will be submitted to all ECRAN countries to allow for updates and provision of information that were missing by the end of November The feedback is expected by the end of December.

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V. Evaluation

TAIEX

Workshop - participant Evaluation

57314 - ECRAN - TAIEX-ECRAN MultiCountry Second screening workshop on the management plan of the Drina River Basin (Sarajevo - 22/09/2014 to 23/09/2014)

Question		N°. Responses	Yes	No	Partially	Do not know
1. Was the workshop carried out according to the agenda		9	9 (100)%	0 (0)%	0 (0)%	N/A
2. Was the programme well structured?		9	9 (100)%	0 (0)%	0 (0)%	N/A
3. Were the key issues related to the topics addressed?		9	9 (100)%	0 (0)%	0 (0)%	N/A
4. Did the workshop enable you to improve your knowledge?		9	9 (100)%	0 (0)%	0 (0)%	N/A
5. Was enough time allowed for questions and discussions?		9	6 (66)%	0 (0)%	3 (33)%	N/A
6. How do you assess the quality of the speakers?	**Speaker/Expert**	**N°. Responses**	**Excellent**	**Good**	**Satisfactory**	**Poor**
	Ms Medic	9	6 (66)%	3 (33)%	0 (0)%	0 (0)%
	Ms Grizelj Simic	9	9 (100)%	0 (0)%	0 (0)%	0 (0)%
	Ms Barbalic	9	9 (100)%	0 (0)%	0 (0)%	0 (0)%
	Ms Tosic	8	5 (62)%	2 (25)%	0 (0)%	1 (12)%
	Ms Omerbegovic	9	9 (100)%	0 (0)%	0 (0)%	0 (0)%
	Mr Barbalic	9	7 (77)%	1 (11)%	1 (11)%	0 (0)%
Question		**N°. Responses**	**Yes**	**No**	**Partially**	**Do not know**
7. Do you expect any follow-up based on the results of the workshop (new legislation, new administrative approach, etc.)?		9	9 (100)%	0 (0)%	N/A	N/A
8. Do you think that further TAIEX assistance is needed (workshop, expert mission, study visit, assessment mission) on the topic of this workshop?		9	9 (100)%	0 (0)%	N/A	N/A
9. Were you satisfied with the logistical arrangements, if applicable?	Conference venue	9	9 (100)%	0 (0)%	0 (0)%	0 (0)%
	Interpretation	8	8 (100)%	0 (0)%	0 (0)%	0 (0)%
	Hotel	9	7 (77)%	0 (0)%	2 (22)%	0 (0)%
57314: Comment: WELL DONE!!!! THANK YOU VERY MUCH FOR ALL! BEST WISHES FOR THE FUTURE!						

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Workshop - speaker Evaluation

57314 - ECRAN - TAIEX-ECRAN MultiCountry Second screening workshop on the management plan of the Drina River Basin (Sarajevo - 22/09/2014 to 23/09/2014)

Question		N°. Responses	Yes	No	Partially	Do not know
1. Did you receive all the information necessary for the preparation of your contribution?		7	7 (100)%	0 (0)%	0 (0)%	N/A
2. Has the overall aim of the workshop been achieved?		7	7 (100)%	0 (0)%	0 (0)%	N/A
3. Was the agenda well structured?		7	7 (100)%	0 (0)%	0 (0)%	N/A
4. Were the participants present throughout the scheduled workshop?		7	7 (100)%	0 (0)%	0 (0)%	N/A
5. Was the beneficiary represented by the appropriate participants?		7	7 (100)%	0 (0)%	0 (0)%	N/A
6. Did the participants actively take part in the discussions?		7	7 (100)%	0 (0)%	0 (0)%	N/A
7. Do you expect that the beneficiary will undertake follow-up based on the results of the workshop (new legislation, new administrative approach etc.)		7	6 (85)%	0 (0)%	N/A	1 (14)%
8. Do you think that the beneficiary needs further TAIEX assistance (workshop, expert mission, study visit, assessment mission) on the topic of this workshop?		7	7 (100)%	0 (0)%	N/A	N/A
9. Would you be ready to participate in future TAIEX workshops?		7	7 (100)%	0 (0)%	N/A	N/A
10.If applicable, were you satisfied with the logistical arrangements?	Conference venue	7	6 (85)%	0 (0)%	1 (14)%	0 (0)%
	Interpretation	5	5 (100)%	0 (0)%	0 (0)%	0 (0)%
	Hotel	7	4 (57)%	1 (14)%	2 (28)%	0 (0)%
57314: Comment : It was very cold in the meeting room and rooms. No heating provided. **57314: Comment : It was too cold in the hotel**						

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ECRAN

The result of the assessment on how workshop time (introductory, keynotes, screening template exercise and discussion) was used during 1st and 2nd screening workshop is presented in Figure below.

It can be concluded that introductory is significantly shortened, keynotes extended and time for joint exercise and discussion remain almost the same. Exercise with templates and discussion time took 50% of the workshop time.

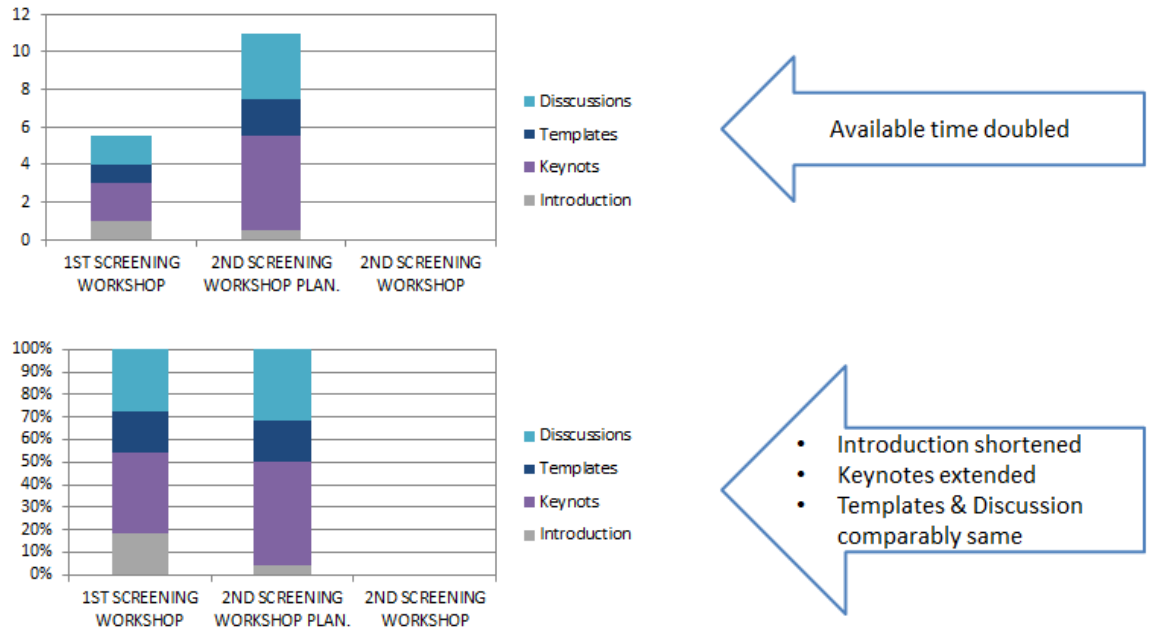

Figure 1. Use of workshop time

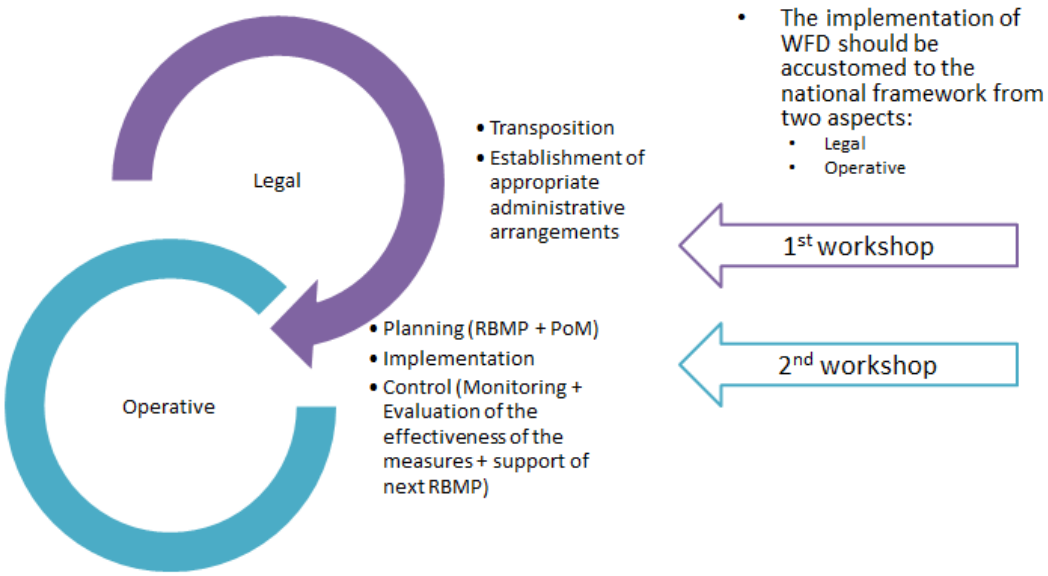

Figure 2. General review of progress

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VI. Training/workshop materials

Workshop materials are available for download from the ECRAN website (see link below):

http://www.ecranetwork.org/Files/ECRAN_Driva_River_Basin_Workshop_presentations,_Sarajevo_22-23.09.2014.rar

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