

Intercalibration for the coordination of the environmental objectives at the basin level Romanian experience

Gheorghe Constantin
Director
Ministry of Environment, Water and Forests

ECRAN Screening Workshop, Sarajevo, 17-19 November 2015

Intercalibration

- WFD requires that the boundaries between the ecological quality classes high – good and good - moderate will be established through an intercalibration exercise (WFD Annex V, 1.4.1, iii).
- An intercalibration network, consisting of selected sites, will be established representing Member States' interpretations of the normative definitions of surface water status (defined in WFD Annex V, Section 1.2) in relation to reference conditions.

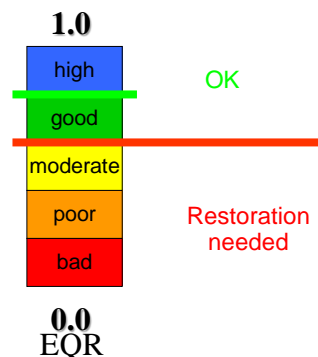
Purpose of intercalibration

- To ensure comparable ecological quality assessment systems and harmonized ecological quality criteria for surface waters in the Member States. This ensures a harmonized approach to define one of the main environmental objectives of the WFD, the “**good ecological status**”, by establishing:
 - Agreed ecological quality criteria for good quality sites, setting the targets for protection and restoration;
 - Agreed numerical Ecological Quality Ratio (EQR) values for two quality class boundaries (high/good and good/moderate).

Objectives of intercalibration

Setting of good status class boundaries:

- Consistent with WFD definitions
- Comparable between all 28 Member States



Water bodies for intercalibration

- Rivers
- Lakes
- Transitional Waters
- Coastal Waters
- Heavily modified waters

Steps toward intercalibration

- Establishment of the Expert groups
- Proposal of water body types
- Proposal of pressures and biological quality elements
- Selection of types, pressures, and quality elements for the intercalibration network
- Selection of sites for the draft intercalibration register
- Metadata analysis
- Evaluation of the proposed intercalibration sites by expert groups
- Finalisation of the draft register
- Presentation of the draft register to the Article 21 Committee
- Revision of the draft intercalibration register

Establishment of the expert group

- Expert groups are established for all main water body categories (rivers, lakes, and transitional and coastal waters);
- Experts are proposed and selected by the Member States.
- Each Member State are represented in the expert groups relevant for their surface waters
- A platform for the communication within/between the expert groups (information exchange, meetings, www-page, etc.) is organised by the Commission.

Proposal of water bodies types

The expert groups have proposed the ***water body types*** for each surface water category and (eco)region included in the intercalibration network, taking into account the output of working groups REFCO and COAST (refer to WFD CIS Guidance Documents No.s 10 and 5, respectively). Preliminary proposals of common intercalibration types for each surface water category have been prepared by the expert drafting groups

Proposal of pressures and biological quality elements

For each selected intercalibration type, the expert groups agreed on the pressures and the biological quality elements, where the intercalibration exercise should focus on, taking into account guidance from the IMPRESS and MONITORING working groups (WFD CIS Guidance Document No.s 3 and 7, respectively). Preliminary proposals for the focus and information requirements for the site selection have been prepared by the expert drafting groups

Selection of types, pressures, and quality elements for the intercalibration network

- Selected for each type of water body
- Specific quality elements
- Depending of the availability of the data
- The proposals of the expert groups have been discussed and finalised by the Intercalibration working group.

Selection of sites for the draft intercalibration register

- Each Member State have selected the sites for the draft intercalibration register;
- The sites selected represented high-good and good-moderate class boundaries according to each Member States' interpretation of the normative definitions, taking into account the Guidance Documents of REFCOND and COAST (WFD Guidance document No.s 10 and 5)

Metadata analysis

- The Commission set up a database holding metadata (information about the availability of data) for all intercalibration sites as selected by the Member States;
- Member States provided metadata on typology, reference conditions and biological and physico-chemical monitoring results. If essential information was not available at the time of the site selection, they indicated if, when and in what form the data will become available;
- Additionally, information have been provided on the criteria for classification of the sites. This information was necessary for the evaluation of the choices of the Member States by the expert groups in the next step;
- The metadata analysis has been the basis for the compilation of the draft register for the intercalibration network providing an overview of the information available for each intercalibration site;
- The metadata analysis was the basis for a realistic planning for the intercalibration exercise and for the preparation of the database for this purpose.

Evaluation of the proposed intercalibration sites by expert groups

- The Commission compiled the results of the metadata analysis and make them available to the expert groups;
- The expert groups evaluate the selection by the Member States and point out possible inconsistencies (including differences in Member State's interpretations of the normative definitions);
- The expert groups review the metadata and propose what data should be collected / made available for the intercalibration exercise – allowing Member States to start collecting data which is still not available

Finalization of the draft register

- The evaluation of the different expert groups of the proposed selections of the Member States have been presented, discussed and approved by the Intercalibration working group;
- The draft register of the intercalibration network have been discussed in a joint workshop of Member State representatives (Intercalibration WG) and the Commission, evaluated consistency with the normative definitions of the class boundaries and comparability between Member States²⁴.
- The draft register is the list of sites selected by the Member States, together with the approved summary of the metadata analysis including information of the criteria for the quality classification of those sites

Presentation of the draft register to the Article 21 Committee

- The Commission finalised the draft register of the Intercalibration network, and submitted it to the Article 21 Committee
- Together with the draft register, the Commission submitted the results of the evaluation made
- Decision of the European Commission on intercalibration has been prepared (Decision 2008/915/EC)

Revision of the draft intercalibration register

- If a revision of the draft intercalibration is decided, ***Member States should reconsider and possibly expand their selection*** (based on the decisions of the Article 21 Committee)
- If new sites are selected by the Member States they should be included in the metadata analysis;
- For the final register, it is recommended to follow the same procedure should be followed as for the draft intercalibration register
 - Evaluation of the proposed intercalibration sites by expert groups;
 - Finalisation of the (proposed) register;
 - Presentation of the (proposed) register to the Article 21 Committee;
 - Approval of the final intercalibration register by the Article 21 Committee.

Example of intercalibration results

GIG	Quality element	Countries affected	Maximum difference in good-moderate or high-good boundary (max %)
Rivers Central-Baltic	Macroinvertebrates	BE(W), FR, LU	GM: FR 0.80 – LU 0.72 (8%) HG: BE(W) 0.97 – FR 0.94 (3%)
Rivers Central-Baltic	Phytobenthos	BE(W), EE, LU, SE	GM: SE 0.74 – BE(W) 0.61 (13%) HG: SE 0.89 – BE(W) 0.83 (6%)
Rivers Mediterranean	Macroinvertebrates	EL, IT, CY	GM: CY 0.73 – IT 0.70 (3%) HG: CY 0.97 – IT 0.94 (3%)
Rivers Mediterranean	Phytobenthos	PT, ES	GM: ES 0.70 – PT 0.62 (8%) HG: ES 0.93 – PT 0.84 (9%)
Rivers Northern	Phytobenthos	FI, SE	GM: FI 0.80 – SE 0.74 (6%) HG: FI 0.91 – SE 0.89 (2%)
Coast North-East Atlantic	Macroinvertebrates	FR, DE, ES	GM: DE 0.70 – FR/ES 0.53 (17%) HG: DE 0.85 – FR/ES 0.77 (8%)

17

Romanian intercalibration process-Rivers (1)

- Voluntary participation in 2005 process
- Participation in the Eastern Continental Group
- 14 sites (7 for border good/moderate and 7 for very good/good) from 8 river basins
- Biological element -macrozoobentos

Romanian intercalibration process-Rivers (2)

- Participation in Eastern Continental Group
- 109 sites with 8 typologies
- Biological elements :phytoplankton, phytobentos, macronevertebrate and macrophyte
- Participation in Danube Group
- 143 sites
- Biological elements :phytoplankton, phytobentos, macronevertebrate and macrophyte

Romanian intercalibration process-lakes

- Participation in the Eastern Continental Group
- 3 lakes
- Biological elements :phytoplankton, phytobentos, macronevertebrate, macrophyte and fish
- No site included in the intercalibration

Romanian experience within the intercalibration process

- Lack of enough data and information for the biological elements
- Lack of methodologies for the establishing EQR
- Lack of capacities to monitorize some biological elements
- Long time needed for completion of the data base
- Dificulties in matching effects with pressures

