

OSPAR Convention for the Protection of the Marine Environment of the North-East Atlantic  
Meeting of the Hazardous Substances and Eutrophication Committee (HASEC)  
Videoconference: 22–26 March 2021

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## Terms of Reference of the TG-IQSR to develop the indicator and thematic assessments for the QSR 2023

### Background

1. The lead of the Task Group on Inputs for the QSR (TG-IQSR) is the [Chair of INPUT, Lars Sonesten \(SE\)](#)
2. The TG-IQSR will meet monthly between February 2021 and January 2022.
3. The TG-IQSR is responsible for:
  - 3.1 Developing the input indicators for the QSR;
  - 3.2 Developing the thematic assessment for the QSR:
    - a. following the aims of the thematic report and based on the structure (below),
    - b. including atmospheric inputs information,
    - c. using information from the inputs indicator assessments.
  - 3.3 Ensuring Contracting Parties are responsible for checking and revising their RID data, as necessary;
  - 3.4 Completing the information for the selected rivers;
4. Participation is open to all Contracting Parties with at least one point of contact required for each Party.

### Inputs indicator assessments

5. Lead author: [Chair of HASEC \(Philip Axe\)](#)

### Thematic assessment report

6. Overall lead for the thematic report: [Chair of INPUT \(Lars Sonesten\)](#). Lead authors for the thematic report chapters are:
  - 6.1 Chapter 1, Exec summary: [Chair of INPUT \(Lars Sonesten\)](#)
  - 6.2 Chapter 2, introduction & methodology: [Germany \(Julian Mönnich\)](#)

- 6.3 Chapter 3, selected rivers will be based on: INPUT 21/3/5 and for information, the zip-files 21/3/5 addenda 3 and 4; and GIS information provided by Chair of HASEC. TG-IQSR to develop a template for [Contracting Parties](#) to follow to draft the information on their national rivers
- 6.4 Chapter 4, pathways for selected catchments: [Denmark \(Lars M. Svendsen\)](#).
- 6.5 Chapter 5, synthesis and interpretation:
- i. Chapter 5a. effectiveness of measures: [Denmark \(Lars M. Svendsen\)](#).
  - ii. Chapter 5b. N:P ratios: [Chair of HASEC \(Philip Axe\)](#) – note, this will be taken up in eutrophication thematic report.
  - iii. Chapter 5c. heavy metals inputs: [Chair of HASEC \(Philip Axe\)](#) – liaise with MIME on its requirements.
  - iv. Chapter 5d. comparison with the regional assessments: [\[to be confirmed\]](#)
- 6.6 Chapter 6, gaps and uncertainties: [\[authors of other chapters to contribute. Lead author to be confirmed\]](#)
- 6.7 Chapter 7, next steps: [\[authors of other chapters to contribute. Lead author to be confirmed\]](#)
- 6.8 Chapter 8, references: [Secretariat](#)

*Aims of the thematic report:*

- Demonstrate how input data support identifying input pathways, trend in and early warning of changes in inputs and give an indication of effectiveness of measures to reduce inputs to different OSPAR sea Regions;
- Expand upon the brief information in the indicator assessment sheets.
- Include normalised results and effectiveness of measures (based on normalisation results);
- Inorganic nutrients as a proportion of totals;
- Ratios N:P;
- Main pathways (atmospheric, direct, riverine) – Case study(?);
- One report, but separate chapters for nutrients and metals, as these are relevant to different audiences.

*Proposed Chapters*

1. Executive summary;
2. Introduction and methodology;
3. Selected rivers:

Like the HELCOM approach, showing the location, relative sizes, rough land use and population, area-specific losses, then a more detailed indicator assessment sheet approach (~3 pages per catchment) describing the actual catchment. Page 1 – Geographical and other background information (population, land-use if possible); Page 2 – Nutrient inputs; Page 3 – Metal inputs;

For the period 1990-2019 (30 years), show annual actual and normalised inputs & trends for nutrients (TN, TP, inorganic fractions, N:P ratios, discharge (runoff)) & contaminants (Hg, Pb, Cd, Cu, Zn);

Ideally:

- a. [Thames, Trent & Ouse, Severn & Avon – UK to confirm]
  - b. Suir (IE)
  - c. Skjern (DK)
  - d. Large continental rivers: Elbe (DE), Rhine/Meuse, Seine (FR), Loire (FR), Garonne & Dordogne (could be calculated as one load at the mouth – FR to confirm), Douro (PT), Guadalquivir (ES), Guadiana (ES), Miño (ES), Tagus (PT), Weser, Scheldt (BE & NL),
  - e. Scandinavian: Göta (SE), Glomma (NO), Alta (NO)
  - f. Ölfusa – Icelandic data
  - g. [Faeroe Island data to be included in RID, not as part of the thematic assessment – DK to confirm]
4. Pathways for selected catchments – proportion of riverine, direct discharges and atmospheric inputs.
  5. Synthesis / interpretation –
    - a. Effectiveness of measures
    - b. N:P ratios (and possible effects on marine ecosystems)
    - c. Heavy metals
    - d. Comparison with the regional assessments
    - e. [Bow-tie analysis of cumulative effects on the DAPSIR framework – to be discussed further after HASEC, at next TG-IQSR]
  6. Gaps and uncertainties
  7. Conclusions and next steps
    - a. Substances of emerging concern (questionnaire, in collaboration with NORMAN network?)
    - b. Dealing with gaps and uncertainties
  8. References

*Annexes:*

1. Limits of quantification issues
2. Trend methods

*Issues*

Require a dedicated data contact point in each Contracting Party with a catchment analysed in the “Special Catchments” analysis.

Do not include the regional summaries this time, as this information is in the IA-2017/QSR-2023 indicator assessment sheets.

## Annex 1: QSR 2023 Guidance Document(Agreement 2019-02), revised 2020

### *Thematic assessments*

The function of the thematic assessments is to bring together a large number of indicator assessments, other assessments (both OSPAR- and third-party assessments), data products and other relevant information to present the evidence base for the key conclusions/statements which will be presented in the synthesis report. These conclusions will be presented in the form of a summary in each thematic report. The thematic assessments are intended for an expert audience, this will be reflected in the level of technical detail included as well as technical language used. The summaries are intended for policy makers.

The list of thematic assessments as well as progress being made in developing and drafting the text is maintained and managed through the QSR 2023 Master Plan which is maintained on SharePoint.

The QSR 2023 Resources page on the OSPAR website provides the template for developing the thematic assessments, as well as a guidance on completing the template.

The information and conclusions in the thematic assessments will support the statements on progress for status, pressures and implemented measures in the synthesis report and should to the extent possible be presented in line with the sub-chapter headings in the synthesis report. The thematic assessments will integrate several types of information of relevance for the theme. Each thematic assessment will be supported by several indicator assessments, reports on implementation and effectiveness of OSPAR measures and as relevant other data products such as spatial information on human activities. The thematic assessments also include socio-economic assessments as relevant to each theme. The thematic assessments can also build on relevant assessments from “third parties” organisations.

There will be differences in the scope and technical implementation of the thematic assessments. For some topics, such as eutrophication, quantitative integration is foreseen, whereas for other topics such as biodiversity, a more qualitative approach based on expert judgement may be needed.

The outputs of the thematic assessments will be developed with the intention of enabling use of information by Contracting Parties that are also EU Member States in MSFD Article 8 reporting. The template for developing the thematic assessments includes an excel based Addendum which compiles the specific result values needed for this purpose.

### Interlinkage of information to support thematic assessments

Thematic assessments will bring together several information sources in order to inform the executive summary statements which are to feed into the synthesis report. Thus, the flow of information and clarity in which component will be delivered by which group of experts to another and at what time will be of importance.

#### *4.2.1 Thematic assessment structure*

The thematic assessments will answer the questions defined in the JAMP used in QSR 2010 whenever relevant. This approach is used with the aim of linking back to the QSR 2010 and evaluating progress against NEAES 2020 (note the slight difference to synthesis report structure).

### Executive Summary

Each thematic assessment will reflect on key findings for each of the five OSPAR Regions. The questions used to structure the executive summary of the Thematic assessments respond to the questions in JAMP and are in Table 1.

*Table 1. Alignment of QSR 2010 Questions to be answered in the executive summary with DAPSIR Elements that structure the main body of text*

QSR 2010 Question	Guidance Document additional Text	Corresponding DAPSIR Element
1. What are the problems? Are they the same in all OSPAR regions?	<p>a. summary of the current state of knowledge on the threats to (pressures on) the marine environment, which should:</p> <ul style="list-style-type: none"> <li>i. include both threats to human health and to the environment;</li> <li>ii. bring out the links between the driving forces (uses and human activities) and pressures behind those threats, their actual and potential impacts and their relation to economic benefits and costs of degradation;</li> <li>iii. refer back to QSR 2010 and consider future developments in uses and activities that are likely to lead to new or changed threats in these fields;</li> <li>iv. consider the differences between the OSPAR regions.</li> </ul>	<p><b>Pressure</b> exerted on the marine environment which may present a threat to the health of the marine ecosystem or its components or to human health</p> <p>Driving Forces = Social or Economic <b>Drivers</b> of change</p> <p>Human Activities = <b>Activities</b></p> <p>Actual and potential Impacts of pressures on state = <b>Impacts</b></p> <p>Cost = <b>Consequences</b> of Impacts (social, economic, or environmental)</p>
2. What has been done?	<p>b. a brief description of the programmes and measures in place, under the OSPAR Convention or otherwise, for implementing the Thematic Strategies and the progress made with their implementation.</p>	<p>Programme of Measures = <b>Responses</b></p> <p><i>(i.e. the actions taken and / or proposed to minimise Impact and improve State (management response))</i></p>
3. Did it work?	<p>c. the OSPAR Convention, of “the effectiveness and adequacy of the actions and measures taken and planned for the protection of the marine environment”. The section would look at the objectives of North-East Atlantic Environment Strategy (NEAES) 2010 – 2020 and give an estimation of whether the measures are sufficient for achieving the objectives of NEAES 2020 – 2030. (Guidance</p>	<p>Effectiveness of the management measures taken (<b>Responses</b>)</p> <p>How are <b>Activities</b> changing to reduce pressure / changes in the ecosystem?</p>

QSR 2010 Question	Guidance Document additional Text	Corresponding DAPSIR Element
	on this aspect of the evaluation is being developed by the TG-MAP reporting to CoG)	
4. How does this field affect the overall quality status?	d. an assessment of the effects of these driving forces, pressures, impacts and responses on the overall state of the marine environment; e. an evaluation of how far the status is from the NEAES quality objectives.	<b>Impact and State</b>
5. What do we do next?	f. an identification of the priorities for action (linking up with the objectives of the NEAES 2020 – 2030).	Response?

#### 4.2.2 Thematic assessment output

The headings used in the main body of the thematic assessments are not specified, and as long as the DAPSIR framework is applied, assessors are free to formulate appropriate headings. Each thematic assessment is foreseen to cover all elements of the DAPSIR framework, however the amount of information to be presented for each element will differ between thematic assessments. It may be more relevant to address the information in a different order for a thematic assessment that focuses on a key pressure compared with an assessment focussing on a biodiversity element.

Information should be provided in a coherent/uniform way, following the DAPSIR Framework (figure 3), with trend (arrow), status (colour code), confidence level (quantitative) throughout the thematic assessments. The thematic assessments follow agreed methodologies, including agreed assessment values/thresholds, list of elements, aggregation- and integration methods and regional or sub-regional variations. The agreed methods lead to (quantitative) statements of:

- the quality status of the North-East Atlantic and its Regions for the theme/topic
- the extent to which (quality) objectives and/or (management) targets have been achieved in the OSPAR Regions
- the trend and/or direction of change
- the trend in the long term, taking account of changing human activities, pressures and environmental factors
- outlook of change / direction; estimate by when achieving the objectives and/or targets is expected
- Evaluation of the effectiveness of OSPAR actions, and where appropriate non-OSPAR actions.

The DAPSIR framework allows assessors to decide whether to start from the ‘Activities’ or start from the ‘State’ element. In the final presentation of the thematic assessments in OAP, it is envisioned that each element could be accessed directly by the interested reader. The concept of this is illustrated in Figure 3. Figure 3 aligns with the guidance provided in EU Staff Working Document (2020) 62 final, on integrating drivers, activities, pressures, state, and ecosystem services (through management, measures, and monitoring).

*DAPSIR framework defines the elements*

<b>DAPSIR</b>	<b>Definition</b>
D - <i>Driver(s)</i>	The social and economic requirements, e.g. the need for food, energy, transport, trade, materials
A – <i>Activity(ies)</i>	The human activity / activities with the potential to impact negatively on the marine environment
P - <i>Pressure(s)</i>	The stressor(s) acting on a Criteria Element (Commission Decision 2017/848) within the marine environment resulting from the <b>Driver(s)</b>
S - <i>State</i>	The current status of the Criteria Element based on the best available knowledge and / or expert judgment.
I - <i>Impact</i>	The effect and consequence of the Pressure(s) on the Criteria Element based on the best available knowledge and / or expert judgment.
R - <i>Response</i>	The actions taken and / or proposed to minimise <b>Impact</b> and improve <b>State</b> (management response)

Note: We also consider management (M) actions (and the effectiveness of such management).